



# An International Practice Analysis of the International Board Certified Lactation Consultant® (IBCLC)®

Executive Summary

November 2021

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## I. Purpose

This report summarises the methodology and procedures used to conduct a practice analysis for the International Board of Lactation Consultant Examiners® (IBLCE®) International Board Certified Lactation Consultant® (IBCLC®) certification examination. The purpose of IBCLC certification is to recognise each individual who meets established criteria which uphold standards of practice and thereby promote public protection. The current number of certificants that hold the IBCLC credential is over 33,000.

A practice analysis (sometimes referred to as a job analysis, job task analysis, occupational analysis, or role delineation study) is a scientific inquiry conducted to identify the tasks and work activities conducted, the context in which those tasks and activities are carried out, and the competencies (knowledge areas, skills, and abilities) required to perform a job role successfully.<sup>1</sup>

The International Board of Lactation Consultant Examiners retained PSI Services LLC, a leading career development company inclusive of psychometric services to complete a study in accordance with the principles and practices outlined in the *Standards for Educational and Psychological Testing*.<sup>2</sup> The purpose of this process was to create examination specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification.

## II. Establishment of the Practice Analysis Task Force

In July of 2018, the IBLCE Board of Directors approved the establishment of an International Practice Analysis Task Force (Task Force).

The Task Force was charged with identifying the target practitioner as well as developing the survey instrument (including knowledge and task statements, rating scales, and a sampling plan). The Task Force was also charged with developing examination specifications based on the data collected by the survey instrument.

Given her extensive research experience and expertise, the IBLCE Board of Directors appointed Christina Porucznik, PhD, MSPH, an epidemiologist and experienced researcher and an IBLCE public board member, to serve as the chair of the Task Force. Dr. Porucznik serves as a Professor

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<sup>1</sup> Sackett, P.R., Walmsley, P.T., Laczko, R.M. (2012). Job and work analysis: Industrial and Organizational Psychology. In N. Schmitt, S. Highhouse (Eds.), *Comprehensive Handbook of Psychology, Volume 12*. New York, NY: John Wiley and Sons.

<sup>2</sup> American Educational Research Association, American Psychological Association, National Council on Measurement in Education (2014). *Standards for Educational and Psychological Testing*. Washington, DC: AERA.

in the Division of Public Health in the Department of Family and Preventive Medicine at the University of Utah School of Medicine.

In August of 2018, IBLCE disseminated a public call to recruit members for the Task Force. The public call outlined the purpose of a Practice Analysis as well as provided a summary of the activities and time commitment required to serve as a Task Force member. The public call was sent via IBLCE’s email management system to all IBCLCs. The call was disseminated in English as that is the business language of IBLCE and Task Force members were expected to be fluent in English. Task Force applicants were asked to respond via email with a cover letter and CV.

To minimise the potential for bias and prevent the undue or disproportionate influence of any individual or group, Task Force members were intentionally selected to reflect the IBCLC certificant population. The key characteristics considered, given the IBCLC’s global scope, included years of experience, practice setting, geographic location, and discipline (with consideration of highest degree earned). Additionally, in selecting members of the Task Force, care was taken to ensure members were familiar with the target population of entry-level practitioners. The 12 applicants chosen to serve on the Task Force were contacted via email and asked to complete IBLCE’s standard Conflict of Interest form. Any potential conflicts of interest were vetted before the Task Force was finalised. Summary demographics of the Task Force members (inclusive of the Task Force Chair) are shown below in Table 1.

Table 1. Summary Demographics of the Practice Analysis Task Force Members

	Practice Setting	IBLCE Region	Highest Degree Earned	Discipline
1	Hospital	Europe, Middle East & North Africa	MD	Physician
2	Hospital	Americas & Israel	Masters	Nurse
3	Hospital	Asia-Pacific & Africa	Bachelors	Nurse
4	Educational Institution/Organisation	Americas & Israel	PhD	Other
5	Private Practice	Europe, Middle East & North Africa	Masters	Physician
6	Medical Practice	Europe, Middle East & North Africa	PhD	Physician
7	Community Clinic	Americas & Israel	Bachelors	Nurse
8	Educational Institution/Organisation	Americas & Israel	Masters	Nurse
9	Hospital	Americas & Israel	Bachelors	Dietician
10	Hospital	Asia-Pacific & Africa	Masters	Physician
11	Private Practice	Americas & Israel	Diploma	Midwife
12	Hospital	Americas & Israel	Bachelors	Nurse

### III. Methodology

#### **A. Meeting of the Practice Analysis Task Force**

The Task Force held their initial meeting on March 11, 2019. The goals of this initial meeting were to receive orientation on the practice analysis process, to review the practitioner definition, and to begin to develop a list of tasks and knowledge areas that reflect the practitioner role.

In advance of the first meeting of the Task Force, members were provided with background literature that explained the practice analysis purpose and process. A large portion of the first meeting involved an orientation provided by the psychometric consultant. This orientation outlined the steps involved in the practice analysis process, an explanation of knowledge statements and rating scales, and the role of Subject Matter Experts.

#### **B. Linkage to Practice**

To begin work on developing a list of tasks and knowledge areas that reflect the practitioner role, the psychometric consultant created a web-based survey for Task Force Members. The first part of the survey asked for any additional input on the practitioner definition. The second part of the survey was a series of 130 knowledge statements. These knowledge statements were developed during the focus group discussions related to the 2014, or previous IBCLC Practice Analysis. The survey was organised by Detailed Content Outline Domain, and the Task Force members had an opportunity to provide suggested edits to the knowledge statements as well as provide suggestions for any knowledge statements that were missing. To ensure that the knowledge statements presented in the Practice Analysis survey were linked to practice, the Task Force members were asked to evaluate each knowledge statement against three criteria:

- Is it important to the profession?
- Will it be relevant for the next 5 years?
- Is it applicable across work settings and job titles?

The Task Force had two options for responding to each knowledge statement - Keep or Omit. The Task Force had two weeks to complete the survey, at which time the survey closed and the results were analysed by the psychometric consultant.

The Task Force reconvened on April 11, 2019, to review the results of the internal survey. The psychometric consultant facilitated a review of the existing practitioner definition, which outlines the target audience for the credential, to determine if changes to practice necessitated revisions. The Task Force unanimously agreed that the practitioner definition is still relevant and correct and no changes were necessary. The practitioner definition as approved by the Task Force is:

An International Board Certified Lactation Consultant® (IBCLC®) is a professional member of the healthcare team who has earned and maintains the credential which identifies knowledge and expertise in breastfeeding management and care. An individual who holds the credential has met defined eligibility requirements and passed a rigorous, psychometrically sound examination. Since 1985, the IBCLC credential has provided evidence that as a practitioner, the IBCLC has the required knowledge to:

- Advocate and educate about breastfeeding as a global public health imperative
- Provide leadership for society, from communities to policymakers
- Promote environments that support breastfeeding
- Facilitate an optimal breastfeeding experience for families
- Identify and manage high acuity lactation challenges

An IBCLC works independently and in collaboration to empower mothers, children, and families to meet their breastfeeding goals.

The Task Force also reviewed the 130 knowledge statements and the internal survey results. The Task Force unanimously approved 118 knowledge statements for inclusion on the Practice Analysis survey. One notable change in the knowledge statements as compared to the previous Practice Analysis concerned the knowledge statement, “Extending the duration of breastfeeding.” As this knowledge statement is related to several other knowledge statements (i.e., Employment – beginning or returning to work), the Task Force elected to remove this statement given that the topic is addressed in the remaining related knowledge statements.

The previous Practice Analysis, completed in 2014, identified key tasks associated with developing a care plan. The Task Force was unanimous in their agreement that these tasks should be included on the current Practice Analysis survey in order to ensure linkage to practice. The Task Force modified and expanded upon these key tasks to include:

1. Develop a plan
2. Document
3. Evaluate
4. Help mother determine goals
5. History taking
6. Work with other healthcare providers
7. Visual examination of the breastfeeding mother’s nipple and breast
8. Visual examination of the breastfeeding infant’s position and latch
9. Verbal communication with breastfeeding families

Competencies related to clients at different chronological ages were included in the previous Detailed Content Outline. The Task Force determined that this was another important linkage to practice and unanimously voted to survey how frequently IBCLCs worked with each age group. The Task Force decided to include all 12 chronological periods on the Practice Analysis survey. The 12 chronological periods in the Practice Analysis survey included:

- A. Prenatal – maternal
- B. Labor – maternal / birth – perinatal
- C. Prematurity
- D. 0-2 days
- E. 3-14 days
- F. 15-28 days
- G. 1-3 months
- H. 4-6 months
- I. 7-12 months
- J. Beyond 12 months
- K. General principles (including preconception)

### C. Survey Development

Based on these decisions from the Task Force, the psychometric consultant developed a survey to validate the tasks and knowledge areas and to help determine content weighting. The survey was designed to collect respondents’ ratings of the importance for each task and knowledge area, and the frequency of working with each chronological period. A rating scale of Importance was used to evaluate the appropriateness of the inclusion of each knowledge statement or task. A rating scale of Frequency was used to evaluate chronological period.

Table 2. Rating Scale 1: Importance - Used for Knowledge Statements and Tasks

How important is this to understand as it relates to YOUR current practice as a lactation consultant? or How important is this task as it impacts breastfeeding?
0 - Not applicable to my practice
1 - Minimally important
2 - Somewhat important
3 - Important
4 - Quite important
5 - Extremely important

Table 3. Rating Scale 2: Frequency - Used for Chronological Period

How frequently do you work with this client group?
0 - Never
1 - Sometimes
2 – Regularly

During this initial meeting, the Task Force also discussed the use of gendered language as it relates to breastfeeding. The Task Force reviewed how other global health organisations address this issue and determined that to fully understand how this applies to global practice as an IBCLC, data should be gathered from survey participants. An optional question was placed on the survey concerning the use of gendered language as it relates to breastfeeding:

The following question is to help inform IBLCE regarding preferred terminology related to breastfeeding. This question is optional but will help inform IBLCE in the use of terminology for educational, training, and examination materials.

- A. Which terminology do you prefer related to breastfeeding/chestfeeding?
1. Chestfeeding (gender-neutral)
  2. Breastfeeding (gendered)
  3. I have no preference

Between May 1, 2019, and November 11, 2019, a pilot survey was conducted with the Practice Analysis Task Force and IBLCE staff members to ensure that the survey was operating correctly, with minor modifications made to address the pilot survey reviewers' comments.

#### **D. Inclusion of COVID-19 Questions**

The survey was originally scheduled to be sent in April of 2020. Due to the COVID-19 global pandemic and the fact that many IBCLCs were working on the front lines of the COVID-19 response, the decision was made to delay the survey. However, the Task Force recognised that sending a global survey during this time could be leveraged to gain insight into how COVID-19 has impacted practice as an IBCLC. Therefore, the Task Force approved additional optional questions to the end of the survey in all languages:

A. How has the Covid-19 pandemic impacted how you support breastfeeding families?

1. My practice has been minimally impacted.
2. My practice has been somewhat impacted.
3. My practice has been impacted.
4. My practice has been quite impacted.
5. My practice has been extremely impacted.

B. In what ways has the COVID-19 pandemic impacted the way you support breastfeeding families (please select all that apply)?

1. I am using personal protective equipment that I have not used before.
2. I am experiencing a shortage of personal protective equipment (PPE).
3. I am no longer meeting families in person.
4. I am newly providing care via telehealth.
5. I have voluntarily chosen not to practice during this time.
6. I am not practicing due to unemployment or furlough.
7. I am working to draft policy concerning breastfeeding during COVID-19 for my hospital/institution.
8. My practice has not changed.

3. Please include any additional information concerning how COVID-19 has impacted the way you support breastfeeding families.

## E. Survey Administration

The survey was sent via email in all current IBCLC examination languages as well as shared via IBLCE's social media. The survey opened on August 23, 2020, and closed on December 11, 2020. The number of individuals that responded to the survey was 4,233. Following the close of the survey, the data were analysed to identify any respondents who did not complete the survey or provided responses lacking any variance (i.e., "straight-lining" or providing the same response to every task or knowledge). This process yielded a useable number of 4,150 survey responses.

## F. Response Rates

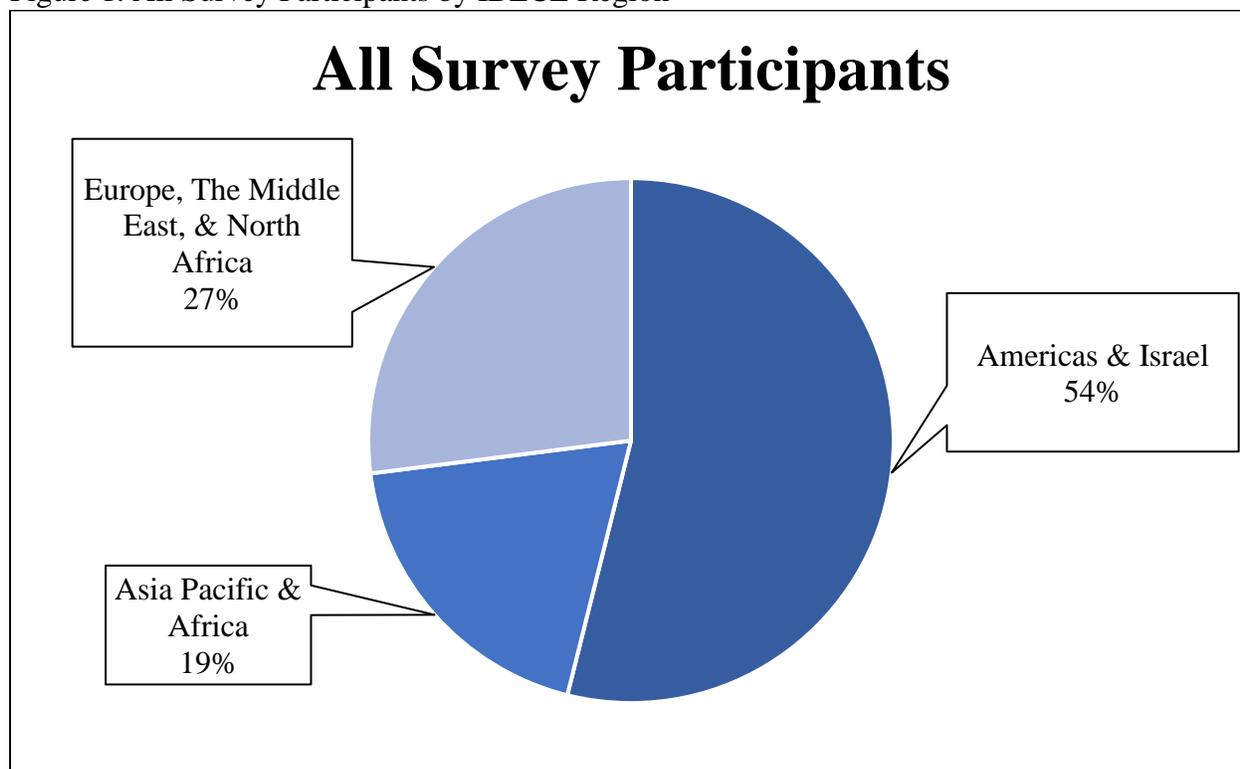
IBLCE sent 30,055 emails via its email communication system across all languages. Due to the English collector link being conveyed via both email and social media, as well as the potential for original email recipients to forward the email to colleagues, response rates are approximate. The overall response rate across the 17 languages was approximately 14%.

## IV. Responses to Demographic Questions

Summaries of the responses to the demographic questions are shown in the figures and tables that follow. The Practice Analysis Task Force reviewed the results of the survey in February 2021. After reviewing the demographic data and comparing it with certificant demographics, the Task Force unanimously agreed that the survey respondents were representative of the profession.

### A. IBLCE Region

Figure 1. All Survey Participants by IBLCE Region



## B. What is your Primary Professional Setting?

Figure 2. Primary Professional Setting for All Survey Participants

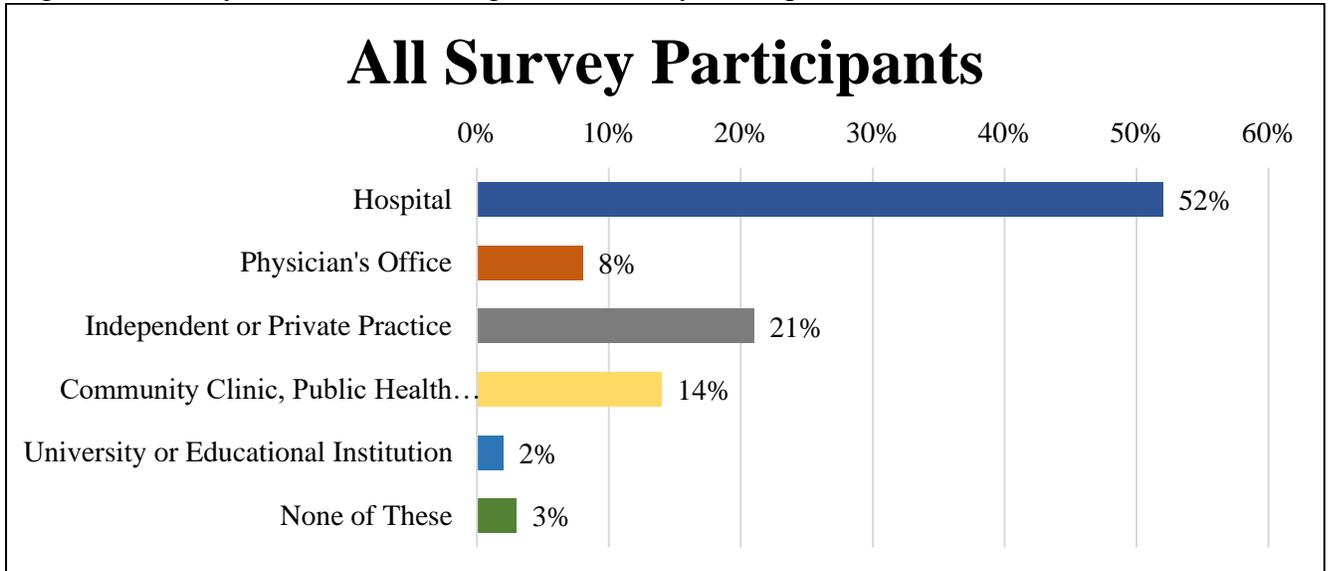
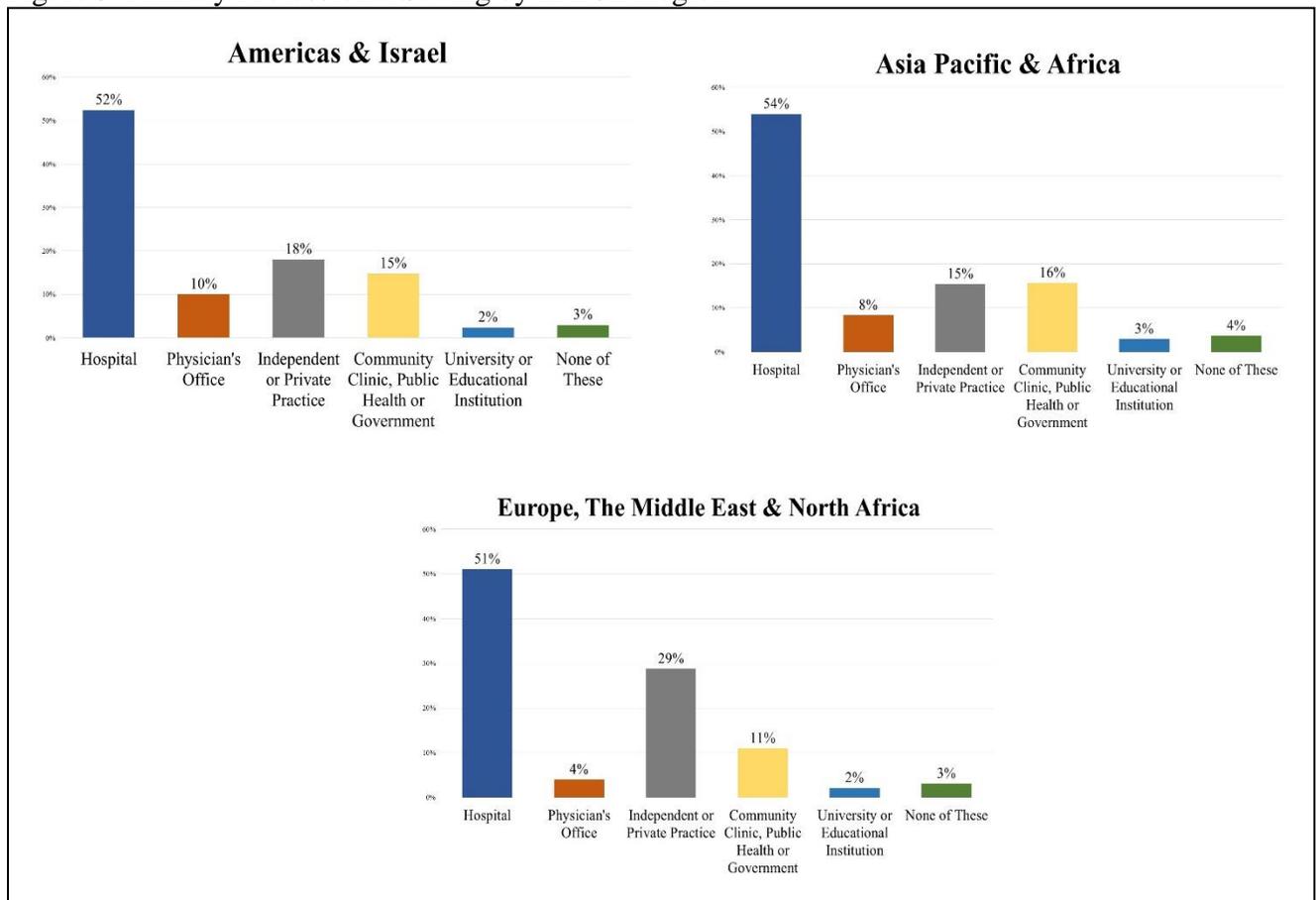


Figure 3. Primary Professional Setting by IBLCE Region



## C. What is your Primary Language?

Table 4. Primary Language for All Survey Participants

Language	Percentage of Survey Participants
Chinese - Traditional	2.9%
Croatian	0.3%
Danish	1.2%
Dutch	2.8%
English	63.5%
French	4.8%
German	8.4%
Greek	0.4%
Hungarian	0.5%
Indonesian	0.3%
Italian	1.7%
Japanese	6.0%
Korean	1.5%
Polish	0.4%
Portuguese	0.8%
Slovenian	0.3%
Spanish	4.2%

## D. What is your Highest Level of Education?

Figure 4. Highest Level of Education for All Survey Participants

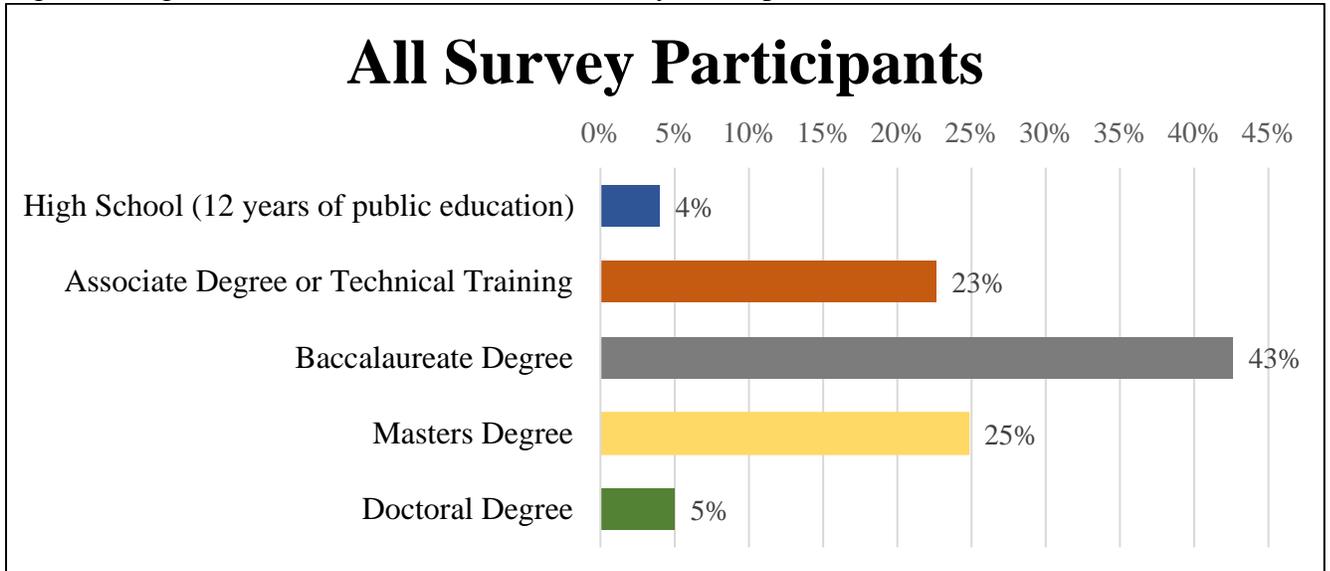
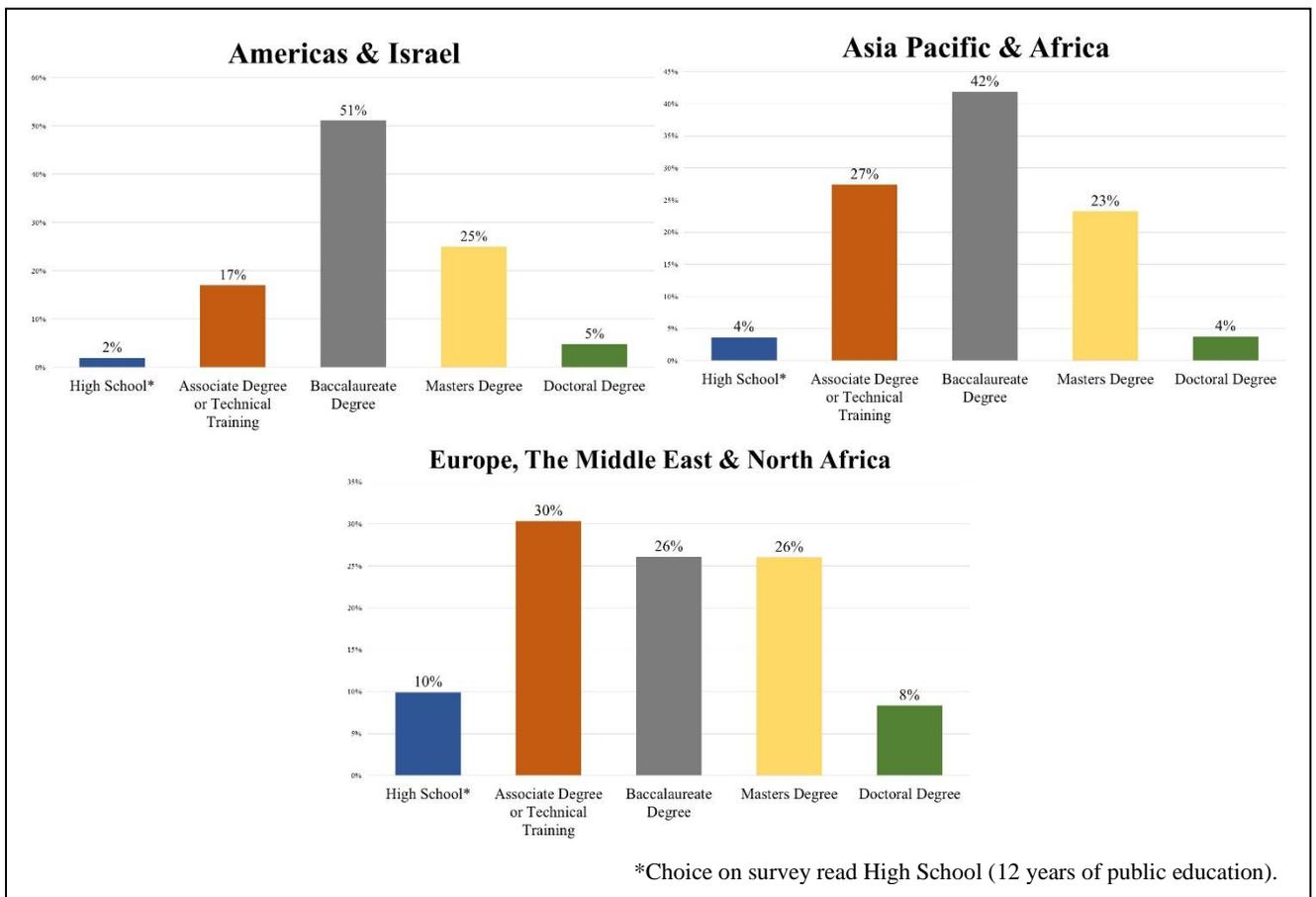
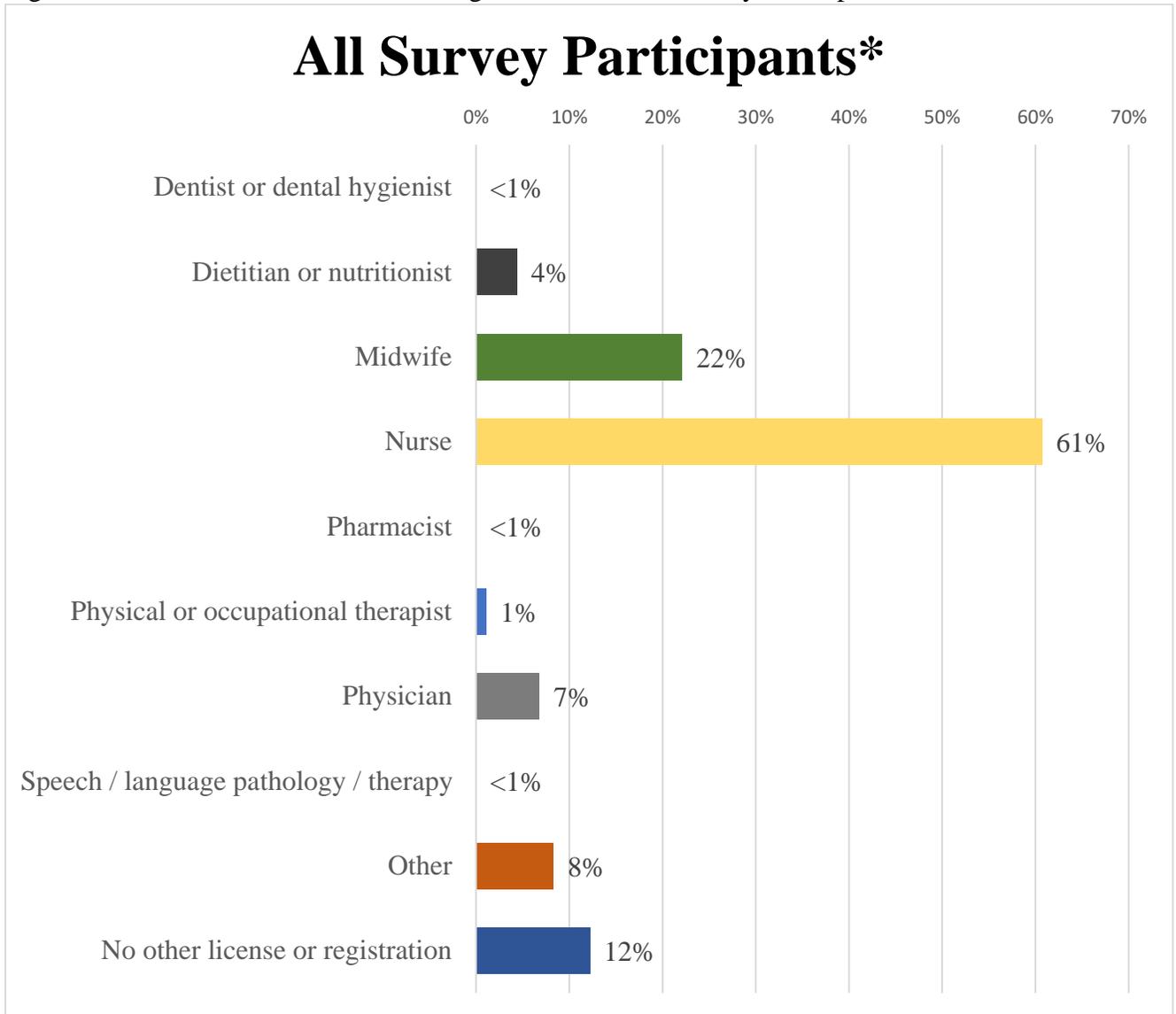


Figure 5. Highest Level of Education by IBLCE Region



## E. What Other Professional Licenses and/or Registrations do you have?

Figure 6. Other Professional Licenses/Registrations for All Survey Participants



\*Note. Because respondents were allowed to choose more than one answer, percentages will not sum to 100%.

**F. Are you Self-Employed?**

Figure 7. Self-Employment Status for All Survey Participants

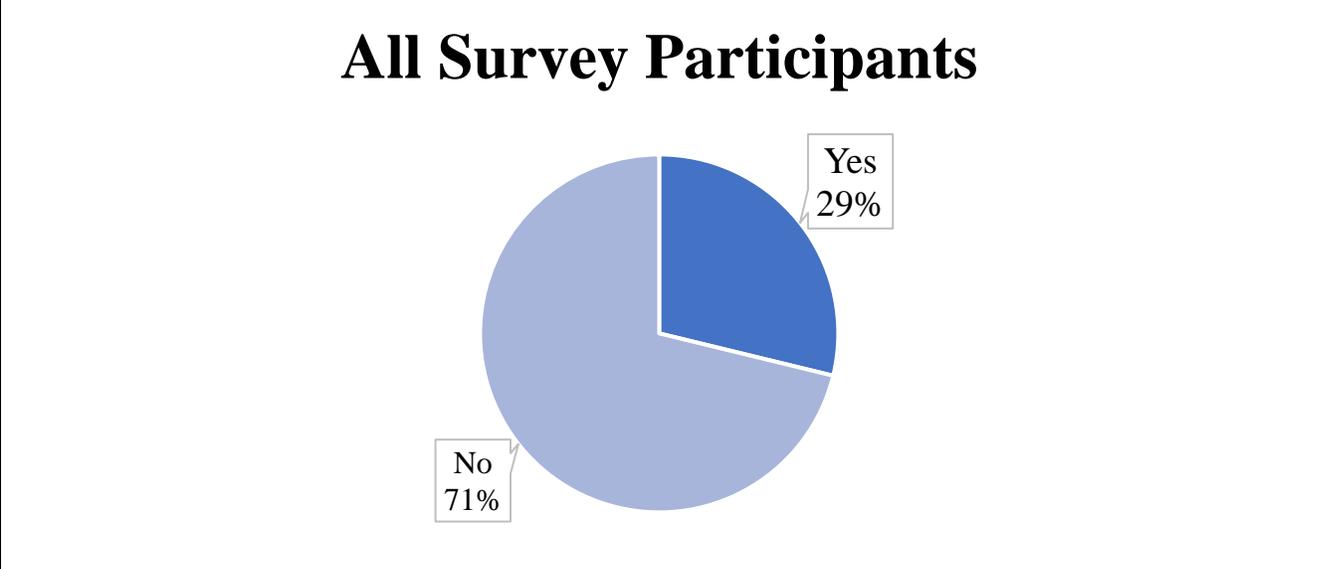
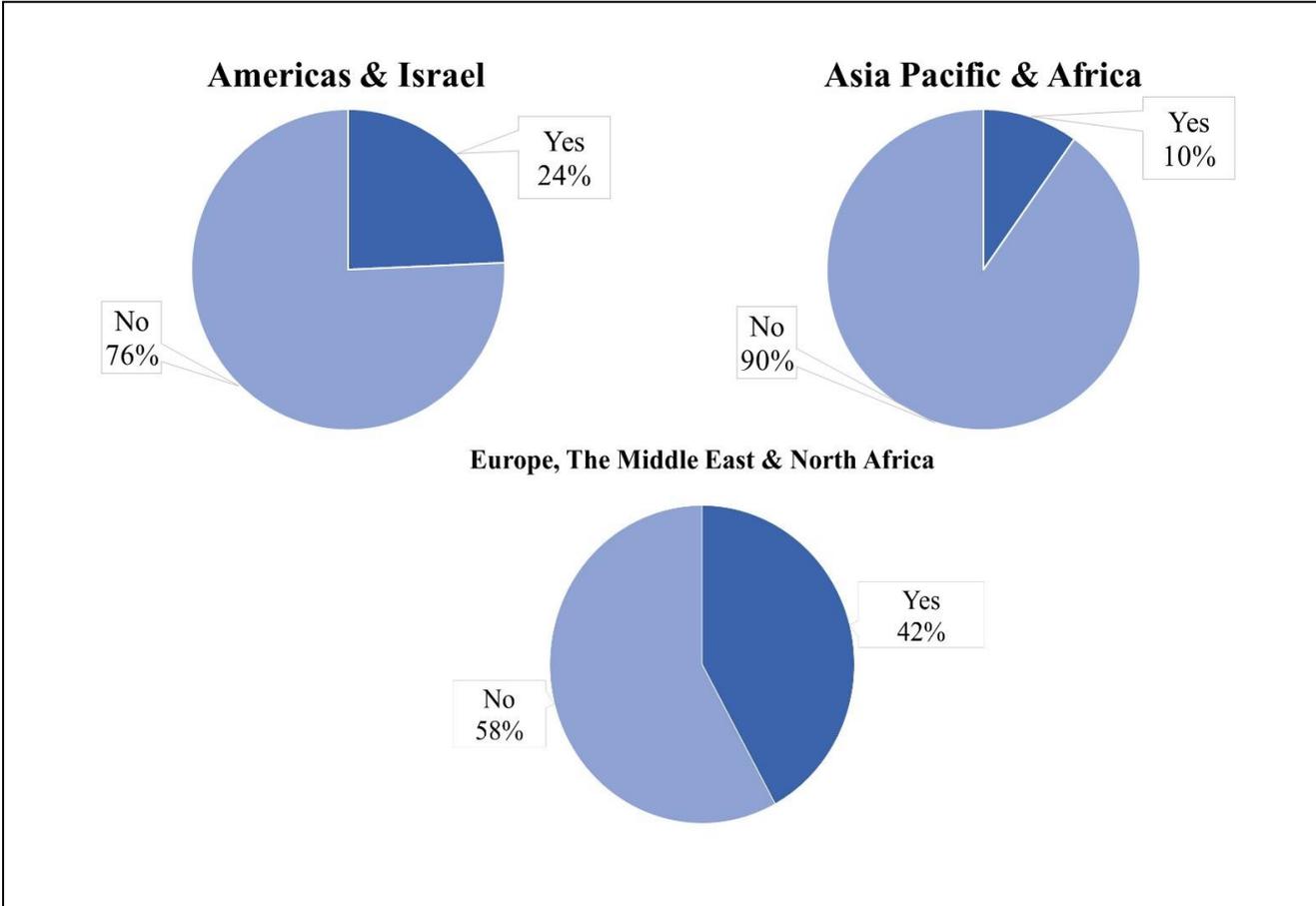


Figure 8. Self-Employment Status by IBLCE Region



## G. Which best describes the Location of your work?

Figure 9. Location of Work for All Survey Participants

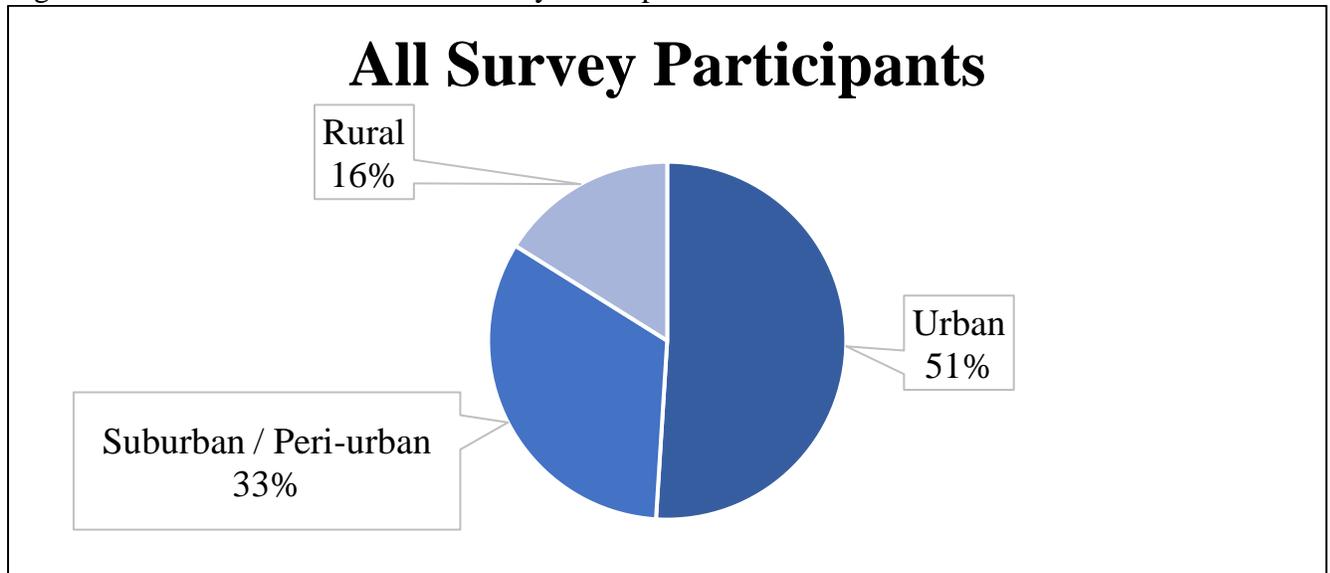
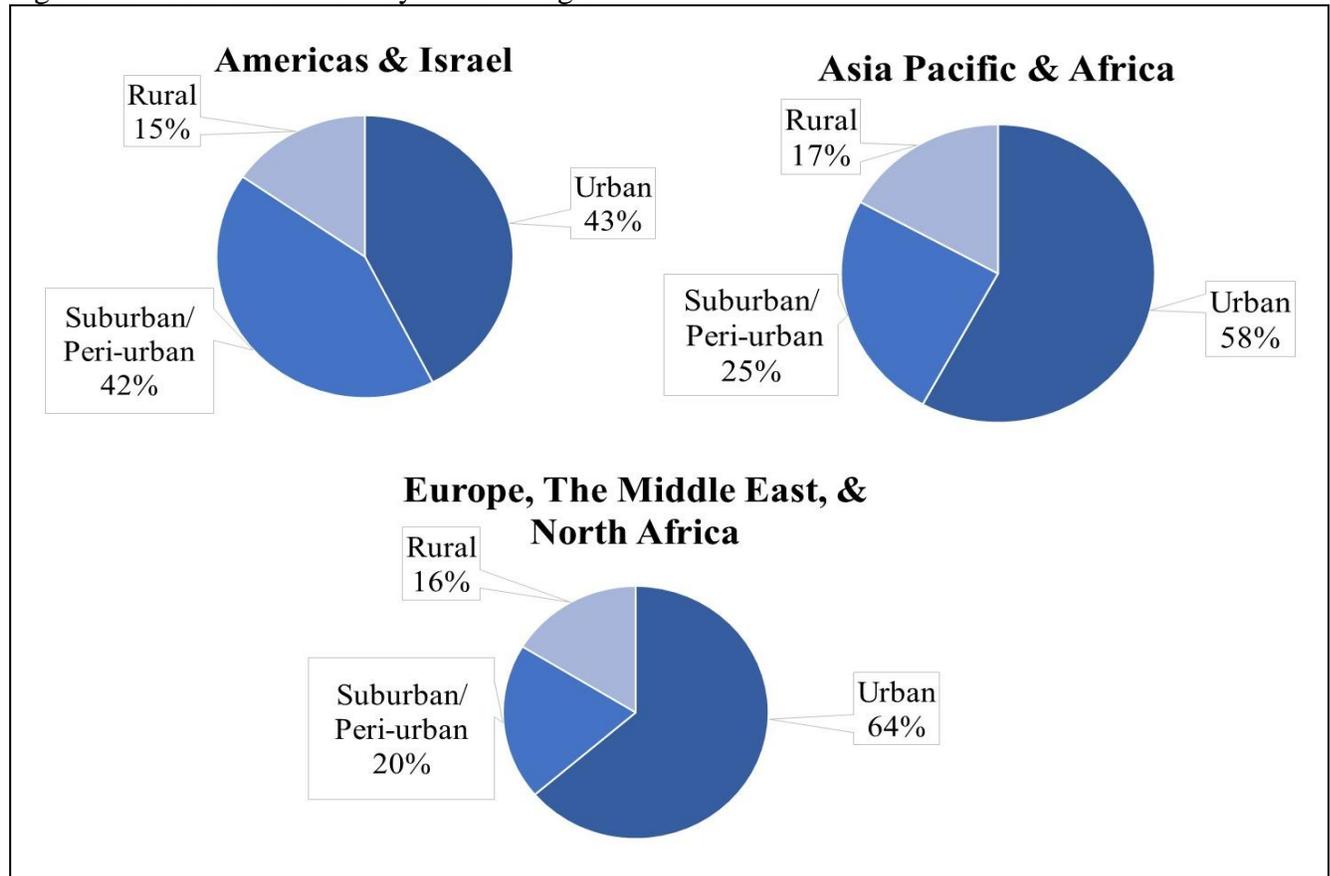


Figure 10. Location of Work by IBLCE Region



**H. Is IBCLC Certification Required by your employer?**

Figure 11. IBCLC Certification Requirement for All Survey Participants

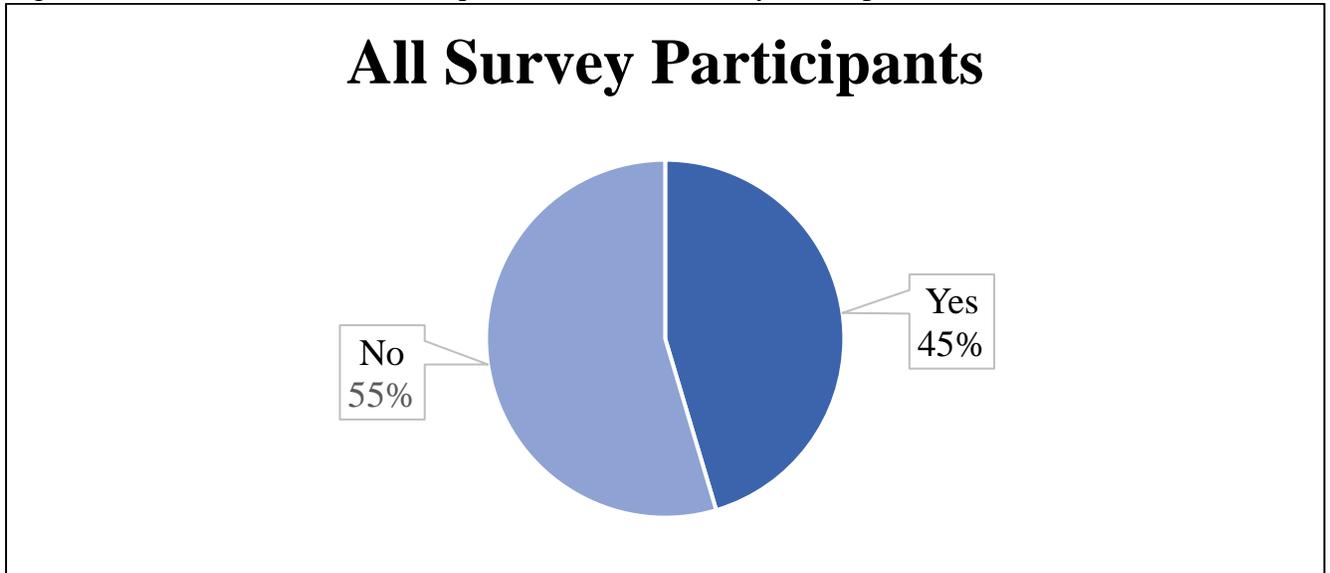
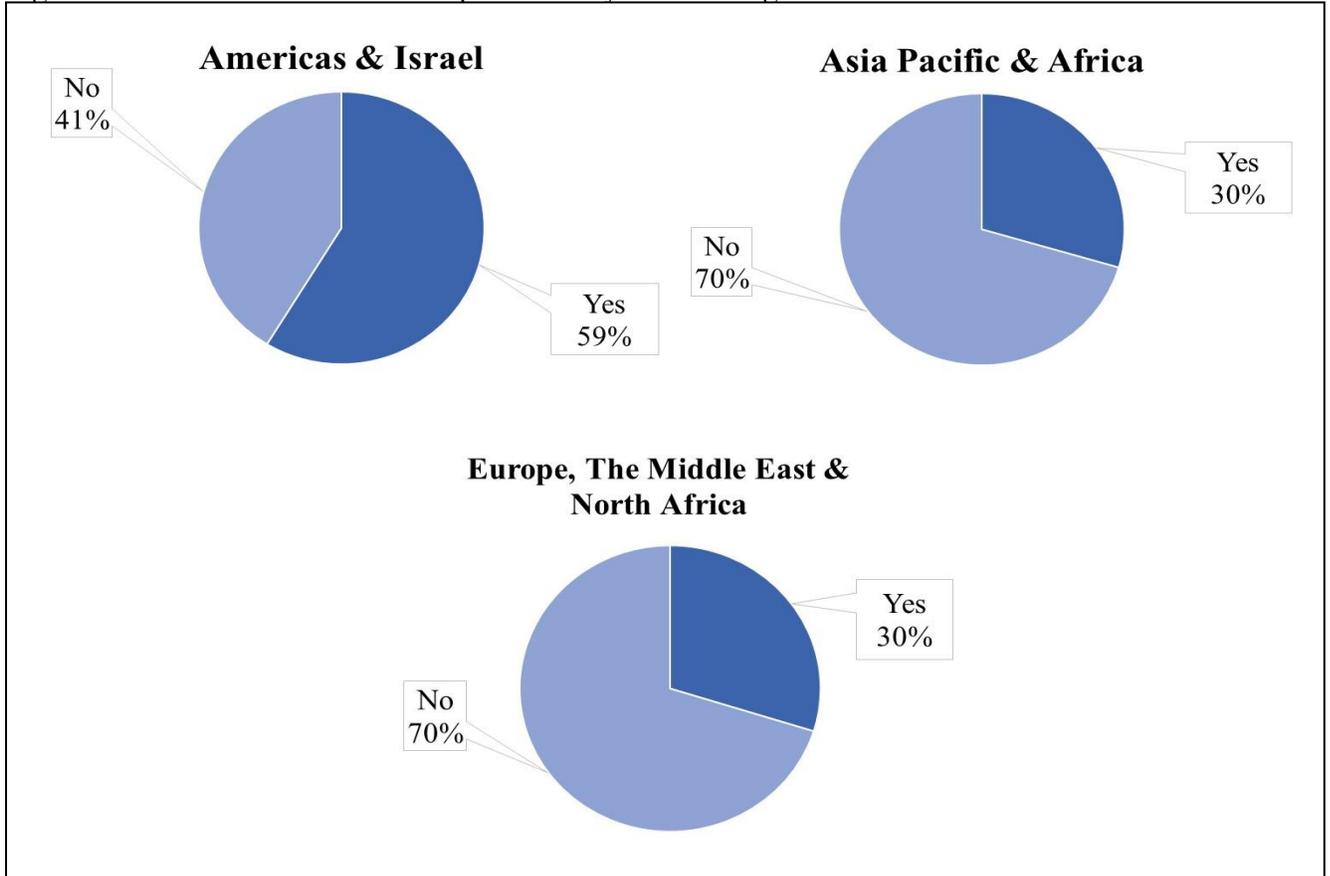


Figure 12. IBCLC Certification Requirement by IBLCE Region



**I. Do you have a Peer-to-Peer (Mother-to-Mother) Support background?**

Figure 13. Peer-to-Peer (Mother-to-Mother) Background for All Survey Participants

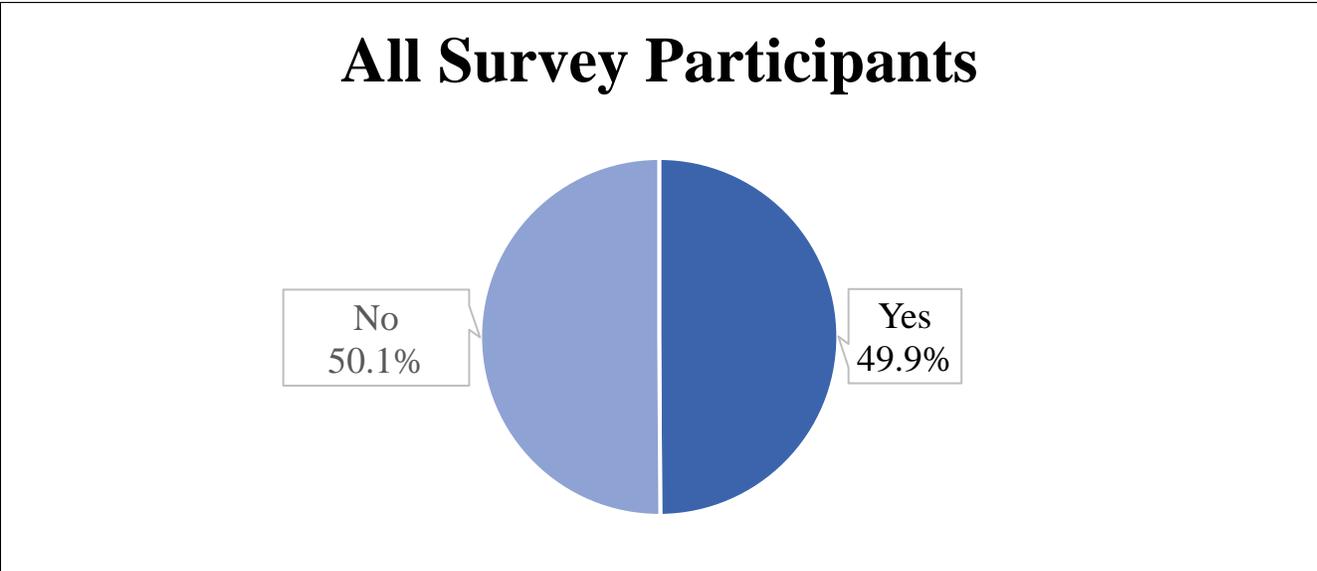
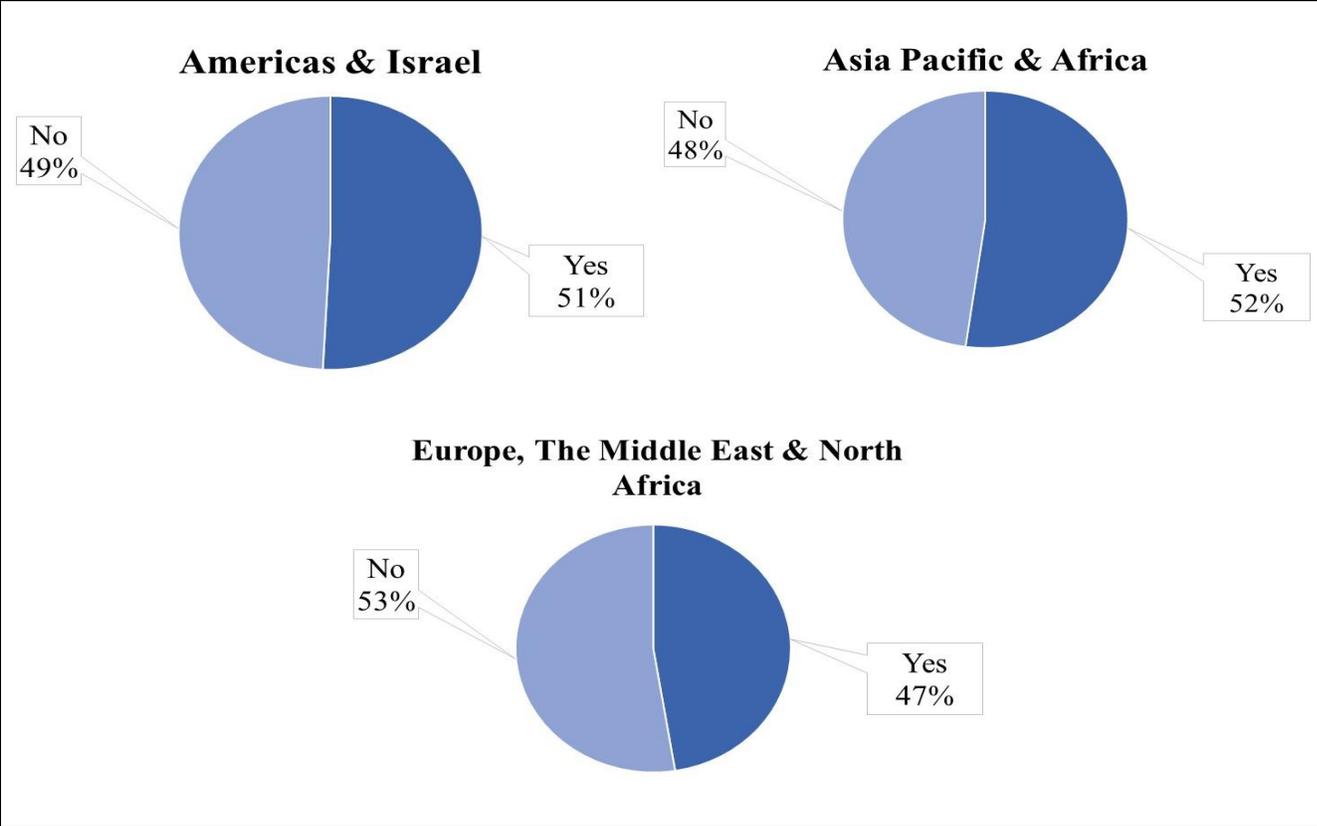
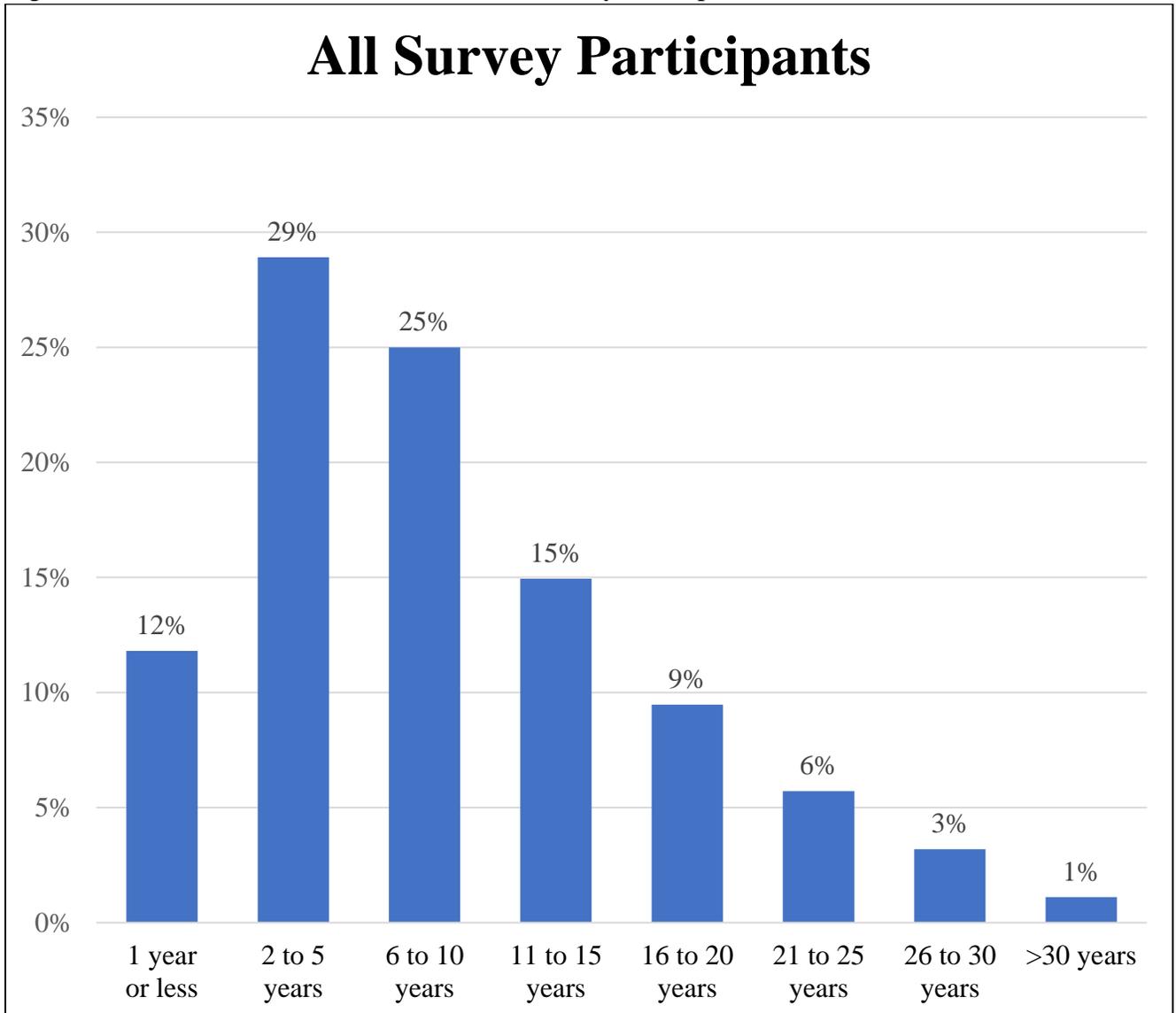


Figure 14. Peer-to-Peer (Mother-to-Mother) Background by IBLCE Region



## J. How Many Years have you been certified as an IBCLC?

Figure 15. Years Certified as an IBCLC for all Survey Participants



## V. Results

### A. Results Related to Knowledge Statements and Tasks

The rating scale of Importance was used to judge the 118 knowledge statements. The ratings scale included a range of 0-5, with 0 being “Not applicable to my practice” and 5 being “Extremely important.” The Mean Importance Ratings across the knowledge statements ranged from 2.71 (for Infant Cancer) to 4.79 (for Latching/Attaching).

Table 5. Distribution of Knowledge Statement Mean Importance Ratings

Mean Importance Rating	Number of Knowledge Statements	Percentage
Less than 3	2	1.7%
3.01-3.49	14	11.9%
3.50-4.00	42	35.6%
4.01-4.49	41	34.7%
Greater than 4.49	19	16.1%

The rating scale of Importance was also used to judge the 9 task statements. All 9 task statements had a Mean Importance Rating above 4.0. The Mean Importance Rating for all 9 task statements is shown in Table 6 below.

Table 6. Mean Importance Rating for Task Statements

Task Statements	Mean Importance Rating
1 Develop a plan	4.28
2 Document	4.35
3 Evaluate	4.44
4 Help mother determine goals	4.50
5 History taking	4.49
6 Work with other healthcare providers	4.28
7 Visual examination of the breastfeeding mother’s nipple and breast	4.57
8 Visual examination of the breastfeeding infant’s position and latch	4.75
9 Verbal communication with breastfeeding families	4.70

## B. Results Related to Chronological Periods

The rating scale of Frequency was used to judge how often survey participants worked with each age group. The scale ranged from 0-2, with 0 being “Never,” 1 being “Sometimes,” and 2 being “Regularly.” All chronological periods had a Mean Frequency Rating above 1.20. The chronological period of 3-14 days had the highest Mean Frequency Rating (1.81), and the chronological period of Preconception had the lowest Mean Frequency Rating (1.21). The full table of Mean Frequency Ratings for all chronological periods can be found in Table 7.

Table 7. Mean Frequency Rating for Chronological Periods

Chronological Periods		Mean Frequency Rating
1	Preconception	1.21
2	Prenatal – maternal	1.44
3	Labor – maternal / birth – perinatal	1.59
4	Prematurity	1.49
5	0-2 days	1.76
6	3-14 days	1.81
7	15-28 days	1.67
8	1-3 months	1.60
9	4-6 months	1.45
10	7-12 months	1.34
11	Beyond 12 months	1.29

## C. Subgroup Analysis

Given the global reach of the IBCLC credential, it is important to ensure that individuals from different subgroups have similar views on the knowledge required for practice. Subgroup analysis was performed to confirm that the ratings warranted inclusion across geography and level of experience. The data were analysed by geography using IBLCE’s three regions (Americas & Israel, Asia Pacific & Africa, and Europe & the Middle East). Data were also analysed by length of time in practice to ensure the knowledge required for practice was similar for early career IBCLCs (defined as those certified 3 years or less) and later career IBCLCs (defined as those certified 4 years or more).

## D. Results Related to Gendered Language

As previously stated, during their initial meetings the Task Force reviewed how other global health organisations address the use of gendered language in regard to breastfeeding. The Task Force determined that to fully understand how the use of gendered language applies to the global practice as an IBCLC, data should be collected as part of the practice analysis survey. The question regarding preferred terminology was optional, and the lack of answer did not impact

inclusion on the overall survey analysis. Despite being optional, 95% of survey respondents (n=3,947) provided an answer for this question. The results are shown in Table 8 below.

Table 8. Gendered Language - All Survey Participants

<b>Which terminology do you prefer related to breastfeeding/chestfeeding?</b>	
Chestfeeding (Gender-Neutral)	6.9%
Breastfeeding (Gendered)	71.3%
No Preference	21.8%

### **E. Results Related to the Impact of COVID-19 on Practice**

IBLCE also utilised the Practice Analysis survey to capture the impact of COVID-19 on practice as an IBCLC. These optional questions were presented at the end of the survey. 96% of survey respondents (n= 3,965) answered the questions shown in Table 9 and 10.

Table 9. Impact of COVID-19

<b>How has the COVID-19 pandemic impacted how you support breastfeeding families?</b>	
My practice has been minimally impacted.	20.5%
My practice has been somewhat impacted.	23.6%
My practice has been impacted.	21.5%
My practice has been quite impacted.	19.4%
My practice has been extremely impacted.	15.0%

Table 10. Ways Practice has been Impacted by COVID-19

<b>In what ways has the COVID-19 pandemic impacted the way you support breastfeeding families (please select all that apply)?</b>	
I am using personal protective equipment that I have not used before.	62.5%
I am experiencing a shortage of personal protective equipment (PPE).	10.3%
I am no longer meeting families in person.	20.1%
I am newly providing care via telehealth.	32.8%
I have voluntarily chosen not to practice during this time.	3.5%
I am not practicing due to unemployment or furlough.	2.6%
I am working to draft policy concerning breastfeeding during COVID-19 for my hospital/ institution.	9.9%
My practice has not changed.	14.9%

\*Note. Because respondents were allowed to choose more than one answer, percentages will not sum to 100%.

## VI. Development of Examination Specifications

For the purposes of this report, the Examination Specifications will be defined as the confidential document that is used to guide the examination development process. The Detailed Content Outline can be defined as a subset of the Examination Specifications; it is a document that includes a detailed listing of content available in outline form for candidates, item writers, and other interested parties. Every examination item must be linked to the Detailed Content Outline as the first step in meeting the Examination Specifications during the examination development process.

Of particular importance to an international certification examination programme is that the Examination Specifications must appropriately reflect the responsibilities of all groups who participate in the certification programme. Subject matter expert judgment is key in accomplishing this goal. The Practice Analysis Task Force met in February 2021 to review the results of the survey, finalise the tasks and knowledge that would comprise the next Detailed Content Outline, and finalise the content weighting for the examination. The Task Force reviewed the demographic results and confirmed that the results matched expectations and impressions of the practitioner population, indicating that the respondent sample is reflective of the target population. The Task Force also reviewed the results of the subgroup analysis and confirmed that the differences across subgroups were minimal and would not impact the development of Examination Specifications.

## **A. Knowledge Statements and Tasks**

After reviewing the results of the survey, the Task Force approved decision rules that would determine the criteria for inclusion of the knowledge statements on the final Detailed Content Outline. The Task Force felt it was critical to include all knowledge statements that the survey participants ranked as “Important” or higher. Anchoring this to the rating scale used to evaluate the knowledge statements, “Important” or higher translated into a Mean Importance Rating threshold of at least 3.0. The decision rule agreed upon by the Task Force was to:

- Include all knowledge and task statements with a Mean Importance Rating of 3.0 or higher.

No task statements were removed from the final list because all met the above threshold. One knowledge statement, 93. Bras, did not meet the Mean Importance Rating threshold and was removed from the final list.

An additional knowledge statement, 94. Slings/carriers, did meet the Mean Importance Rating threshold, but was excluded by unanimous decision of the Task Force as it did not relate to the practitioner role.

The knowledge statement, 42. Infant Cancer, did not meet the Mean Importance Rating threshold, but was included by unanimous decision of the Task Force because, in the expert opinion of the Task Force members, it was critical to the health and safety of the breastfeeding dyad if encountered in practice.

## **B. Chronological Periods**

The Task Force reviewed the Mean Frequency Ratings and agreed to include the chronological periods that survey participants encountered in practice at least “Sometimes.” Anchoring this to the rating scale used to evaluate the chronological periods, “Sometimes” or higher translated into a Mean Frequency Rating threshold of at least 1.0. The decision rule agreed upon by the Task Force was to:

- Include all chronological periods with a Mean Frequency Rating of 1.0 or higher.

It was the professional opinion of the Subject Matter Experts on the Task Force that the level of detail of the chronological periods had little impact on practice (i.e., the competencies needed to address issues in a 3-14 day old infant were very similar to the competencies needed to address issues in a 15-28 day old infant). It was the Task Force’s recommendation that some chronological periods be consolidated to cover a wider time frame in each.

Applying the decision rules to the knowledge, task statements, and chronological periods ensures that the resulting examination reflects the responsibilities of lactation consultants, as judged by a demographically representative group of the population.

## C. Content Weighting

The Task Force then reviewed the draft content weighting, discussing any adjustments necessary to align the number of items per content area for adequate content coverage on the assessment. The draft content weighting was developed by calculating the mean Importance rating and then determining a percentage weight based on the relative weight of the Importance value for each content area. The Task Force reviewed the draft content weighting and the following content weighting decisions were unanimously adopted:

- Increase the content weighting of items for Domain 1: Development and Nutrition from 17.1% to 18.3%.
- Accept the draft content weighting of 8.0% for Domain 2: Physiology and Endocrinology is sufficient to adequately assess the content area.
- Decrease the content weighting for Domain 3: Pathology from 20.6% to 20.0%.
- Accept the draft content weighting of 8.0% for Domain 4: Pharmacology and Toxicology is sufficient to adequately assess the content area.
- Increase the content weighting of items for Domain 5: Psychology, Sociology, and Anthropology from 10.9% to 11.4%.
- Increase the content weighting of items for Domain 6: Techniques from 8.0% to 14.3%.
- Decrease the content weighting of items for Domain 7: Clinical Skills from 27.4% to 20.0%.

The final content weighting decisions are shown in Table 11.

Table 11. Content Weighting Determination

Knowledge Area (Domain)	Percentage	Number of Items*
1 Development and Nutrition	18.3%	32
2 Physiology and Endocrinology	8.0%	14
3 Pathology	20.0%	35
4 Pharmacology and Toxicology	8.0%	14
5 Psychology, Sociology, and Anthropology	11.4%	20
6 Techniques	14.3%	25
7 Clinical Skills	20.0%	35

\*Number of items for each domain assuming a 175 item examination form.

## D. Examination Length and Format

The Task Force agreed with the psychometric consultant's recommendation to keep the IBCLC certification examination length at 175 items. This would allow for adequate analysis of each domain. While the IBCLC examination utilises compensatory scoring (the candidate score is the

sum total score across all domains), the score report made available to each candidate does provide a breakdown by domain.

As survey respondents indicated that Task 7-Visual examination of the breastfeeding mother's nipple and breast and Task 8-Visual examination of the breastfeeding infant's position and latch were of high importance to the practice of an IBCLC (as evidenced by their Mean Importance Rating of 4.57 and 4.75 respectively), the Task Force endorsed the previous format of 85 image items on each examination form. Noting that the ability to synthesise information from a medical history is key to practice, the Task Force also endorsed the inclusion of 2 case studies per examination.

## **E. Final Approval**

The Practice Analysis Task Force met a final time in March 2021 to review the completed Detailed Content Outline. The Task Force unanimously agreed to send the completed DCO and examination specifications to the IBCLC Examination Committee with the recommendation to approve.

The IBCLC Examination Committee has autonomy over all examination development activities, including the final approval of examination specifications for the IBCLC examination. Like the Practice Analysis Task Force, the IBCLC Examination Committee reflects the IBCLC certificant population in key demographic characteristics. The IBCLC Examination Committee met in March 2021 to review and approved the recommended Detailed Content Outline.

During the March 2021 meeting, the IBCLC Examination Committee approved the domains, knowledge statements, and content weighting recommendations from the Practice Analysis Task Force. It also approved the Tasks and agreed that all listed chronological periods are essential to practice and should be included in the Detailed Content Outline. The Examination Committee unanimously agreed to retain the expanded structure of the chronological periods, as the different recommendations for consolidating the periods were not globally applicable due to differences in perinatal practices across the world. Tasks and chronological periods were included on the Detailed Content Outline without any numerical targets as Secondary Characteristics. Language was added to indicate that all chronological periods appear on the examination.

The full Detailed Content Outline, as approved by the IBCLC Examination Committee, is provided below. The anticipated implementation of the new Detailed Content Outline and examination specifications is for the April 2023 IBCLC examination.



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**Detailed Content Outline**

**I. Development and Nutrition**

**32**

**A. Infant**

1. Feeding behaviours at different ages
2. Food intolerances/allergies
3. Infant anatomy and anatomical/oral challenges
4. WHO guidelines for introducing complementary foods
5. Low birth weight and very low birth weight
6. Milk banking – formal and informal
7. Normal infant behaviours
8. Nutritional requirements – including preterm
9. Preterm development, growth, and behaviours (including late preterm)
10. Skin tone, muscle tone, reflexes
11. Term development and growth
12. WHO growth charts with gestational age adjustment
13. Stooling and voiding

**B. Maternal**

1. Breast development and growth (typical and atypical)
2. Breast surgery
3. Composition of human milk
4. Maternal anatomical challenges
5. Maternal nutritional status
6. Nipple structure and variations
7. Nipple modifications (e.g., piercings, tattoos)

**II. Physiology and Endocrinology**

**14**

**A. Physiology of Lactation**

1. Relactation
2. Infertility issues
3. Inducing lactation
4. Pregnancy and breastfeeding – tandem
5. Multiples (e.g., twins, triplets)

**B. Endocrinology**

1. Hormonal influence of milk production
2. Diabetes
3. Maternal hormonal disorders (e.g., pituitary, thyroid, Polycystic Ovarian Syndrome)
4. Maternal autoimmune disorders
5. Newborn hypoglycemia



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**III. Pathology**

**35**

**A. Infant**

1. Ankyloglossia
2. Cleft lip and palate
3. Congenital anomalies (e.g., gastrointestinal, cardiac)
4. Gastroesophageal Reflux Disease (GERD), reflux
5. Hyperbilirubinemia
6. Infant neurological disabilities
7. Small for Gestational Age (SGA), Large for Gestational Age (LGA)
8. Infant acute disease (e.g., infectious, cardiac, metabolic)
9. Vertically transmitted infections (e.g., HIV, Hepatitis B)
10. Esophageal atresia
11. Inborn error of metabolism
12. Infant cancer
13. Infant GI anomalies

**B. Maternal**

1. Abscess
2. Milk ejection reflex dysfunction
3. Maternal acute disease (e.g., infectious, cardiac, metabolic)
4. Maternal chronic disease
5. Maternal disability (physical and neurological)
6. Mastitis
7. Milk supply, low or over
8. Nipple and breast conditions
9. Nipple pain and trauma
10. Post-partum hemorrhage
11. Pre-eclampsia / pregnancy induced hypertension
12. Maternal cancer

**IV. Pharmacology and Toxicology**

**14**

- A. Alcohol
- B. Nicotine and tobacco
- C. Cannabis
- D. Medications (e.g., prescriptions, over-the-counter, diagnostic and therapeutic procedures, aids to labor and delivery)
- E. Drugs of abuse
- F. Contraception
- G. Galactagogues
- H. Gel dressings/nipple creams
- I. Herbs and supplements
- J. Chemotherapy/radiation therapy/radioactive scans



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**V. Psychology, Sociology, and Anthropology**

**20**

- A. Transition to parenthood
- B. Birth practices
- C. Foods to eat/avoid that influence lactation
- D. Employment – beginning or returning to work
- E. Family lifestyle
- F. Identifying support networks
- G. Maternal mental health
- H. Maternal psychological/cognitive issues
- I. Breastfeeding dyad relationship
- J. Safe sleep
- K. Weaning
- L. Cultural awareness

**VI. Techniques**

**25**

- A. Effective milk transfer (including medically-indicated supplementation)
- B. First hour
- C. Latching (attaching)
- D. Managing supply
- E. Milk expression (e.g., pumping, hand expression, leakage)
- F. Position of the breastfeeding dyad (hands-off)
- G. Refusal of breast, bottle
- H. Skin-to-skin (kangaroo care)

**VII. Clinical Skills**

**35**

**A. Equipment and Technology**

- 1. Feeding devices (e.g., tubes at breast, cups, syringes, teats, paladai)
- 2. Handling and storage of human milk
- 3. Nipple devices (e.g., shields, everters)
- 4. Dummies (pacifiers)
- 5. Pumps
- 6. Scales (e.g., accuracy, precision, operation)
- 7. Communication technology (e.g., virtual visits, translation or interpretation services, websites)

**B. Education and Communication**

- 1. Active listening
- 2. Anticipatory guidance
- 3. Care plan development and sharing
- 4. Educating mothers and families
- 5. Educating professionals, peers, and students
- 6. Emotional support
- 7. Empowerment
- 8. Group support



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**VII. Clinical Skills (continued)**

**C. Ethical and Legal Issues**

1. Breastfeeding in public
2. Clinical competencies
3. Code of Professional Conduct (CPC)
4. Principles of confidentiality
5. WHO code – advocacy and policy

**D. Research**

1. Apply evidence-based practice
2. Interpret research results
3. Use research to help develop policies and protocols
4. Design research (including gaining ethical permission)
5. Participate in surveys and data collection

**E. Public Health and Advocacy**

1. Advocate for Baby-Friendly Hospital Initiative (BFHI)
2. Advocate for compliance with World Health Organization International Code of Marketing of Breast-milk Substitutes (WHO Code)
3. Advocate for mother / infant in healthcare system
4. Develop breastfeeding-related policies
5. Advocate to government / health ministries
6. Breastfeeding in emergency situations (e.g., natural disasters, personal emergencies)

**Total Number of Items on the Examination**

**175**



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**Detailed Content Outline**

**Secondary Classifications**

As supported by the practice analysis results, examination items should generally relate to the key tasks associated with developing a care plan, which include:

	<b>Tasks</b>
<b>1</b>	Develop a plan
<b>2</b>	Document
<b>3</b>	Evaluate
<b>4</b>	Help mother determine goals
<b>5</b>	History taking
<b>6</b>	Work with other healthcare providers
<b>7</b>	Visual examination of the breastfeeding mother's nipple and breast
<b>8</b>	Visual examination of the breastfeeding infant's position and latch
<b>9</b>	Verbal communication with breastfeeding families

Except for those items addressing general principles, items are classified according to the chronological period, using the following guidelines:

	<b>Chronological Periods</b>
<b>1</b>	Prenatal - maternal
<b>2</b>	Labour - maternal / birth - perinatal
<b>3</b>	Prematurity (including late preterm)
<b>4</b>	0-2 days
<b>5</b>	3-14 days
<b>6</b>	15-28 days
<b>7</b>	1-3 months
<b>8</b>	4-6 months
<b>9</b>	7-12 months
<b>10</b>	Beyond 12 months
<b>11</b>	General principles (including preconception)

Specific targets are not provided for these secondary classifications, but all chronological periods appear on the examination.