

Exam Blueprint and Specialty Competencies

Introduction – Blueprint for the Community Health Nursing Certification Exam

The primary function of the blueprint for the CNA Community Health Nursing Certification Exam is to describe how the exam is to be developed. Specifically, this blueprint provides explicit instructions and guidelines on how the competencies are to be expressed within the exam in order for accurate decisions to be made on the candidates' competence in community health nursing.

The blueprint has two major components: (1) the content area to be measured and (2) the explicit guidelines on how this content is to be measured. The content area consists of the list of competencies (i.e., the competencies expected of fully competent practising community health nurses with at least two years of experience), and the guidelines are expressed as structural and contextual variables. The blueprint also includes a summary chart that summarizes the exam guidelines.

Description of Domain

The CNA Community Health Nursing Exam is a criterion-referenced exam.¹ A fundamental component of a criterion-referenced approach to testing is the comprehensive description of the content area being measured. In the case of the Community Health Nursing Certification Exam, the content consists of the competencies of a fully competent practising community health nurse with at least two years of experience.

This section describes the competencies, how they have been grouped and how they are to be sampled for creating an exam.

Developing the List of Competencies

A working group of eight highly experienced community health nurses from various regions in Canada revised and updated the current list of competencies during a five-day meeting. The final list of competencies was approved by the Community Health Nursing Certification Exam Committee.

¹ Criterion-referenced exam: An exam that measures a candidate's command of a specified content or skills domain or list of instructional objectives. Scores are interpreted in comparison to a predetermined performance standard or as a mastery of defined domain (e.g., percentage correct and mastery scores), independently of the results obtained by other candidates (Brown, 1983).

Assumptions

In developing the list of competencies for community health nurses, the following assumptions were made:

Health

- is a resource for living and is not merely the absence of illness and disease.
- is holistic and is influenced by the broad determinants of health.
- is a personal concept and is viewed within the context of the client's environment and culture.
- is fluid and dynamic throughout the lifespan.

The client

- refers to individuals, families, groups, communities and populations throughout the lifespan.
- has physical, psychological, social, spiritual, cultural and developmental characteristics and support systems that are interdependent.
- has strengths and abilities.
- has the right to make decisions related to his/her health care.
- is responsible for his/her health.
- is an active participant in meeting his/her own health needs.
- has a fundamental right to access the resources necessary for health.

The environment

- contributes to health, safety and well-being.
- is influenced by social, economic, political and built factors at the local, national and global levels.
- includes diverse rural and urban settings.

The community health nurse

- is a specialist who practises in the community.
- practises in accordance with the Canadian Community Health Nursing practice model.
- practises in accordance with the *Code of Ethics* of CNA.

- partners with clients and key community members where they live, work, learn, meet and play.
- works autonomously and independently in a variety of settings.
- values and believes in caring, the principles of primary health care, multiple ways of knowing and individual/community participation and empowerment.
- values social justice and equity as the foundations of practice.
- is a steward of the environment.
- strives for excellence, promotes evidence-informed practice and maintains professional competence.
- shares professional knowledge with colleagues and students.
- works proactively through advocacy and participation in relevant professional associations.
- advocates for effective and efficient use of community health nursing resources.
- uses reflective practice and continuous learning.

Competency Categories

The competencies are classified under a seven-category scheme commonly used to organize community health nursing.

Some of the competencies lend themselves to one or more of the categories; therefore, these seven categories should be viewed simply as an organizing framework. Also, it should be recognized that the competency statements vary in scope, with some representing global behaviours and others more discrete and specific nursing behaviours.

Percentage of Competencies in Each Group

The following table presents the number and the percentage of competencies in each category.

Table 1: Percentage of Competencies in Each Group

Category	Number of competencies	Percentage of the total number of competencies
Health Promotion	28	25%
Prevention and Health Protection	43	38%
Health Maintenance, Restoration and Palliation	16	14%
Building Capacity	6	5%
Professional Relationships	5	4%
Access and Equity	10	9%
Professional Responsibility and Accountability	5	4%

Competency Sampling

Using the grouping and the guideline that the Community Health Nursing Certification Exam will consist of approximately 165 questions, the categories have been given the following weights in the total examination.

Table 2: Competency Sampling

Categories	Approximate weights in the total examination
Health Promotion	15-20%
Prevention and Health Protection	25-30%
Health Maintenance, Restoration and Palliation	10-15%
Building Capacity	10-20%
Professional Relationships	5-10%
Access and Equity	10-15%
Professional Responsibility and Accountability	5-10%

Technical Specifications

In addition to the specifications related to the competencies, other variables are considered during the development of the Community Health Nursing Certification Exam. This section presents the guidelines for two types of variables: structural and contextual.

Structural Variables: Structural variables include those characteristics that determine the general appearance and design of the exam. They define the length of the exam, the format and presentation of the exam questions (e.g., multiple-choice format) and special functions of exam questions (e.g., case-based or independent questions).

Contextual Variables: Contextual variables specify the nursing contexts in which the exam questions will be set (e.g., client culture, client health situation and health-care environment).

Structural Variables

Exam Length: The exam consists of approximately 165 multiple-choice questions.

Question Presentation: The multiple-choice questions are presented in one of two formats: case-based or independent. Case-based questions are a set of approximately four questions associated with a brief health-care scenario (i.e., a description of the client's health-care situation). Independent questions stand alone. In the Community Health Nursing Certification Exam, 60 to 70 per cent of the questions are presented as independent questions and 30 to 40 per cent are presented within cases.

Taxonomy for Questions: To ensure that competencies are measured at different levels of cognitive ability, each question on the Community Health Nursing Certification Exam is aimed at one of three levels: knowledge/comprehension, application and critical thinking.²

1. Knowledge/Comprehension

This level combines the ability to recall previously learned material and to understand its meaning. It includes such mental abilities as knowing and understanding definitions, facts and principles and interpreting data (e.g., knowing the effects of certain drugs or interpreting data appearing on a client's record).

² These levels are adapted from the taxonomy of cognitive abilities developed in Bloom (1956).

2. Application

This level refers to the ability to apply knowledge and learning to new or practical situation. It includes applying rules, methods, principles and theories in providing care to clients (e.g., applying nursing principles to the care of clients).

3. Critical Thinking

The third level of the taxonomy deals with higher-level thinking processes. It includes the abilities to judge the relevance of data, to deal with abstraction and to solve problems (e.g., identifying priorities of care or evaluating the effectiveness of interventions). The community health nurse with at least two years of experience should be able to identify cause-and-effect relationships, distinguish between relevant and irrelevant data, formulate valid conclusions and make judgments concerning the needs of clients.

The following table presents the distribution of questions for each level of cognitive ability.

Table 3: Distribution of Questions for Each Level of Cognitive Ability

Cognitive Ability Level	Percentage of questions on Community Health Nursing Exam
Knowledge/Comprehension	20-30%
Application	40-50%
Critical Thinking	25-35%

Contextual Variables

Client Culture: Questions are included that represent awareness, sensitivity, and respect for different cultural values, beliefs, and practices.

Client Health Situation: In the development of the Community Health Nursing Examination, the client is viewed within the biological, psychological, social, cultural, developmental, environmental and spiritual dimensions of a total life experience.

Health-Care Environment: It is recognized that community health nursing is practiced in a variety of settings, that people and their physical, social psychological and spiritual environment are interdependent and that socio political environment influence community health nursing practice.

Conclusions

The blueprint for the Community Health Nursing Certification Exam is the product of a collaborative effort between CNA, ASI and a number of community health nurses across Canada. Their work has resulted in a compilation of the competencies required of practising community health nurses and has helped determine how those competencies will be measured on the Community Health Nursing Certification Exam. A summary of these guidelines can be found in the summary chart Community Health Nursing Certification Development Guidelines.

Community health nursing practice will continue to evolve. As this occurs, the blueprint may require revision so that it accurately reflects current practices. CNA will ensure that such revision takes place in a timely manner and will communicate any changes in updated editions of this document.

Summary Chart

Community Health Nursing Exam Development Guidelines

STRUCTURAL VARIABLES		
Examination Length and Format	Approximately 165 multiple choice questions	
Question Presentation	60-70% independent questions 30-40% case-based questions	
Cognitive Ability – Levels of Questions	Knowledge/Comprehension	20-30% of questions
	Application	40-50% of questions
	Critical Thinking	25-35% of questions
Competency Categories	Health promotion	15-20% of questions
	Prevention and health protection	25-30% of questions
	Health maintenance, restoration and palliation	10-15% of questions
	Building capacity	10-20% of questions
	Professional relationships	5-10% of questions
	Access and equity	10-15% of questions
	Professional responsibility and accountability	5-10% of questions
CONTEXTUAL VARIABLES		
Client	The client of community health nurses may be an individual, family, group, aggregate, community, population system or society.	
Client Culture	Questions are included that represent awareness, sensitivity, and respect for different cultural values, beliefs, and practices.	
Client Health Situation	In the development of the Community Health Nursing Examination, the client is viewed within the biological, psychological, social, cultural, developmental, environmental and spiritual dimensions of a total life experience.	
Health-Care Environment	It is recognized that community health nursing is practiced in a variety of settings, that people and their physical, social psychological and spiritual environment are interdependent and that socio political environment influence community health nursing practice.	

The Community Health Nursing Exam

List of Competencies

Health Promotion

The community health nurse:

- 1.1 Identifies the determinants of health.
- 1.2 Assesses the health status of the individual or family across the lifespan within the context of the determinants of health for the following:
 - 1.2a child-bearing family–prenatal period (e.g., comprehensive prenatal assessment);
 - 1.2b child-bearing family–postpartum period (e.g., comprehensive postnatal assessment);
 - 1.2c child-bearing family–parenting (e.g., parenting skills, growth and development, family functioning);
 - 1.2d infant (e.g., immunization status, infant feeding, safety and security, attachment, infant behaviour);
 - 1.2e children (e.g., immunization status, nutrition, physical activity, safety and security, behaviour, growth and development, socialization, screening, self-esteem, peer relations);
 - 1.2f youth (e.g., immunization status, nutrition, physical activity, safety and security, growth and development, body image, self-esteem, peer and adult relationships, sexuality, work);
 - 1.2g adult (e.g., immunization status, nutrition, physical activity, safety and security, literacy, relationships, housing, food security, work, finances, sexuality); and
 - 1.2h older adult (e.g., immunization status, nutrition, physical activity, safety and security, relationships, housing, food security, finances, sexuality, activities of daily living).
- 1.3 Implements individual and family-level health promotion strategies based on the Population Health Promotion Model for the following:
 - 1.3a child-bearing family–prenatal care (e.g., facilitating access to prenatal care, promoting baby-friendly initiatives);
 - 1.3b child-bearing family–postpartum care (e.g., breastfeeding support, anticipatory guidance, smoke-free home, SIDS prevention, building individual and family capacity);
 - 1.3c child-bearing family–parenting (e.g., parenting education, safety, family nutrition, facilitating access to community resources);

- 1.3d infant (e.g., health teaching, screening and awareness campaigns on developmental milestones, injury prevention and feeding during the first year; immunization);
 - 1.3e child (e.g., health teaching, screening and awareness campaigns on developmental milestones, nutritional needs and injury prevention; immunization, collaboration with preschool and school communities);
 - 1.3f youth (e.g., health teaching, counselling and awareness campaigns on self-esteem, body image and nutrition; peer support, immunization, lifestyle choices, social marketing, collaboration with schools and communities);
 - 1.3g adult (e.g., health teaching on work-life balance, smoking cessation, nutrition, sexual health, public awareness campaigns, formal/informal supports, immunization); and
 - 1.3h older adult (e.g., health teaching, public awareness campaigns, advocacy, outreach, socialization, bereavement support, immunization, lifestyle choices).
- 1.4 Conducts community assessments, which include the following:
- 1.4a physical environment (e.g., home, school, workplace, daycare, community and recreation facilities);
 - 1.4b socio-economic environment (e.g., social, spiritual and cultural diversity, municipality services, transportation, food security, employment);
 - 1.4c political environment (e.g., social programs and services, policy influence at multiple levels of government);
 - 1.4d built environment (e.g., traffic, noise, housing, sanitation, lighting, roads); and
 - 1.4e natural environment (e.g., water quality, air quality, soil, sun, allergens).
- 1.5 Implements community-level health promotion strategies based on the Population Health Promotion Model for the following:
- 1.5a physical environment (e.g., hand hygiene stations, social marketing, advocacy);
 - 1.5b socio-economic environment (e.g., meal programs, advocacy for access to transportation, anti-poverty campaigns, involving diverse groups in resource development);
 - 1.5c political environment (e.g., mobilizing community action, committee participation);
 - 1.5d built environment (e.g., advocating for lighting on walking trails, road safety, bike lanes, accessibility); and
 - 1.5e natural environment (e.g., education on safe food preparation and sun safety; organizing a process for safe medication disposal, promoting conservation and recycling).
- 1.6 Evaluates the impact of health promotion strategies (e.g., measure outcomes through surveys, focus groups and surveillance data).

Prevention and Health Protection

The community health nurse:

- 1.7 Recognizes the continuum of prevention (primary, secondary and tertiary).
- 1.8 Applies appropriate level of preventive intervention.
- 1.9 Collaborates with individuals, groups, families and communities to reduce potential health risks.
- 1.10 Uses multiple sources of data to assess changes in community health status:
 - 1.10a observational data (e.g., trends, unusual events, community-identified concerns, windshield survey);
 - 1.10b client records (e.g., number of visits, trends, outcomes);
 - 1.10c organization records and reports (e.g., number of influenza cases, hospital emergency visits);
 - 1.10d key community members and agencies (e.g., key informant interviews, surveys, focus groups);
 - 1.10e epidemiological data (e.g., incidence rates, prevalence, immunization rates, medical health officer reports, active and passive surveillance data);
 - 1.10f community profile (e.g., demographics); and
 - 1.10g evidence-informed research.
- 1.11 Develops a plan of action to address community health status changes (e.g., healthy food choices in schools, safe walking trails).
- 1.12 Implements interventions to improve the health of individuals, groups and communities such as:
 - 1.12a strengthening community action (e.g., advocacy, coalition building, community organizing, screening, negotiation/mediation);
 - 1.12b building healthy public policy (e.g., case reporting, advocacy, coalition building);
 - 1.12c creating supportive environments (e.g., advocacy, social, negotiation/mediation, marketing, screening, surveillance, referral, consultation, collaboration, facilitation, outreach, harm reduction);
 - 1.12d developing personal skills (e.g., health teaching, advocacy, counselling, harm reduction); and
 - 1.12e reorienting health services (e.g., case reporting, case finding, advocacy, surveillance, case coordination, disease or health event investigation, referral).

- 1.13 Supports individuals and communities to make informed choices about protective and preventive health measures (e.g., immunization, palliative care, infant feeding, home safety).
- 1.14 Applies the principles of harm reduction to minimize health risks within the continuum of prevention (e.g., safer sex, needle exchange, safe injection sites, intimate partner violence).
- 1.15 Evaluates protective and preventive health interventions designed to address identified individual and community health issues.
- 1.16 Applies the principles of immunization:
 - 1.16a informed consent;
 - 1.16b screening;
 - 1.16c contraindications (e.g., allergies, vaccine components, pregnancy);
 - 1.16d vaccine administration and monitoring (e.g., safety, documentation);
 - 1.16e anaphylaxis;
 - 1.16f cold chain;
 - 1.16g immunity related to vaccine type; and
 - 1.16h types of immunity (active, passive, cross, herd).
- 1.17 Identifies communicable diseases:
 - 1.17a vaccine preventable (e.g., pertussis, rubella, hepatitis A, human papillomavirus);
 - 1.17b non-vaccine preventable (e.g., HIV, hepatitis C, febrile respiratory illness, Chlamydia);
 - 1.17c health-care acquired infections (e.g., MRSA, VRE);
 - 1.17d emerging and resurgent (e.g., West Nile, hantavirus, tuberculosis, Clostridium difficile);
 - 1.17e common food-borne illnesses (e.g., E. coli infection, hepatitis A, listeriosis);
 - 1.17f parasitic (e.g., lice, scabies, bed bugs); and
 - 1.17g water-borne illnesses (e.g., shigellosis, amebiasis, cholera, giardiasis).
- 1.18 Implements principles of communicable disease management related to:
 - 1.18a mode of transmission (e.g., agent/organism, reservoir, portal of exit, portal of entry, susceptible host);
 - 1.18b infection control (e.g., protection of the public);
 - 1.18c active and passive surveillance;

- 1.18d primary, secondary, tertiary prevention related to communicable disease exposure (e.g., response to outbreaks, contact tracing, direct observed therapy);
 - 1.18e understanding the process and rationale of reportable communicable diseases (e.g., surveillance); and
 - 1.18f outbreak management (e.g., endemic, epidemic, pandemic disease).
- 1.19 Assesses safety and risk as they apply to injury prevention (e.g., related to client, environment, nurse).
 - 1.20 Identifies community health nursing responsibilities throughout the phases of emergency preparedness/disaster management.
 - 1.21 Applies nursing interventions to decrease risk in emergency or disaster situations (e.g., triage, call for backup, self-care).

Health Maintenance, Restoration and Palliation

The community health nurse:

- 1.22 Assesses health needs of clients to determine whether community health nursing interventions are required (e.g., surveillance, intake assessments, case findings).
- 1.23 Develops a client-centred plan of care in collaboration with the individual and family and interprofessional team (e.g., family meetings, case conferences, respite plan, emergency plan, consultation, referrals).
- 1.24 Manages caseload based on prioritizing (e.g., time management, acuity of care, resource allocation, infection control).
- 1.25 Applies the community health nursing process to address health maintenance, health restoration and palliation needs related to:
 - 1.25a management of chronic diseases (e.g., diabetes, cardiovascular disease, kidney disease, cancer, compromised respiratory system, obesity);
 - 1.25b activities of daily living (e.g., physical and instrumental);
 - 1.25c newborn and postpartum complications (e.g., depression/psychosis, mastitis, newborn jaundice);
 - 1.25d palliative and end-of-life care;
 - 1.25e pain management (e.g., acute, chronic, breakthrough, safety related to medications/controlled substances);
 - 1.25f nutrition (e.g., food security, modified diets, hydration and fluid balance, enteral feeding);

- 1.25g elimination (e.g., constipation, catheterizations, enterostomal therapy);
 - 1.25h wound care (e.g., staging, types, healing, skin integrity, signs of infection, underlying causes);
 - 1.25i infusion therapy (e.g., fluid balance, medication administration, peripheral and central venous access devices);
 - 1.25j airway management (e.g., home oxygen, intubation/tracheotomy, home ventilator); and
 - 1.25k infection control (e.g., health-care acquired, communicable disease, immunocompromised, safe handling/disposal of products).
- 1.26 Supports the client to make informed choices related to health care (e.g., advance directives, power of attorney).
- 1.27 Demonstrates ability to delegate nursing care responsibilities to client, family or regulated/unregulated health-care workers.

Capacity Building

The community health nurse:

- 2.1 Conducts individual and community assessments to identify needs, strengths and available resources (e.g., primary and secondary data, windshield survey).
- 2.2 Assesses the readiness of the individual and community for planned change (e.g., perception of needs, ability to mobilize, previous history).
- 2.3 Develops health plans in collaboration with individual and key community members.
- 2.4 Uses capacity building and community development principles to improve health outcomes for individuals and communities (e.g., advocacy, partnership, empowerment).
- 2.5 Uses population health promotion strategies to address health issues (e.g., coalition building, partnerships, networks).
- 2.6 Evaluates actions, policies or programs related to capacity building by measuring their effect on health outcomes.

Professional Relationships

The community health nurse:

- 3.1 Recognizes that both the nurse's and client's attitudes, beliefs, feelings and values affect relationships and interventions (e.g., guest in the home/community, differing values).
- 3.2 Employs a therapeutic nurse-client relationship based on mutual trust, respect and caring (e.g., while developing, maintaining and terminating the relationship).
- 3.3 Demonstrates professional boundaries in the home or other community settings.
- 3.4 Demonstrates leadership skills to build and sustain relationships (e.g., team building, negotiation, conflict management, group facilitation).
- 3.5 Promotes and supports linkages with appropriate community resources when the individual or community is ready to receive them (e.g., prevention activities, parenting groups, case meetings, coalitions).

Access and Equity

The community health nurse:

- 4.1 Assesses the impact of community norms, values, beliefs and resources on the health of individuals and the community (e.g., informed consent, community needs assessment).
- 4.2 Supports care that is respectful of culture in all settings (e.g., religious or cultural ceremonies).
- 4.3 Supports individuals and communities in making informed choices relative to alternative and/or complementary health-care options (e.g., herbal medications, meditation, prayer).
- 4.4 Advocates for appropriate resource allocations (e.g., human, financial) to promote access to services (e.g., transportation, location of off-site programs).
- 4.5 Applies strategies to promote access to services (e.g., case finding, outreach, referrals, advocacy).
- 4.6 Practises in response to changing and emerging health needs of the individual and community (e.g., communicable disease outbreaks, threats to safety of client or nurse).
- 4.7 Identifies service inequities or gaps that influence health determinants (e.g., victimization, vulnerable populations).
- 4.8 Works collaboratively with clients and/or professional colleagues to enhance access and minimize inequities (e.g., case conference, social services, community agencies, using appropriate channels for advocacy).

- 4.9 Applies strategies designed to promote access to needed services (e.g., child care, transportation).
- 4.10 Evaluates strategies designed to promote access to needed services (e.g., survey of participants, focus groups).

Professional Responsibility and Accountability

The community health nurse:

- 5.1 Recognizes actual and potential risk to self or others (e.g., sexual, physical, verbal, financial and emotional abuse).
- 5.2 Responds to situations that involve actual or potential risk to self or others (e.g., delaying service in risky situations, reporting to appropriate authorities, obtaining colleague assistance).
- 5.3 Integrates multiple ways of knowing into practice (e.g., aesthetics, empirics, personal knowledge, ethics or moral knowledge, socio-political knowledge).
- 5.4 Documents community health nursing activities in a timely and thorough manner (e.g., nursing care, telephone consultations, work with communities and groups, using nursing informatics).
- 5.5 Applies standards, principles and self-awareness to manage practice in accordance with all relevant legislation, regulatory body standards, codes and organizational policies.