

Test Bank for Fundamentals of Nursing Concepts and Competencies for Practice 9th Craven

TEST BANK SAMPLE PREVIEW

PUBLISHER

Wolters Kluwer

COPYRIGHT

2020

RESOURCE TYPE

Test Bank

ISBN

9781975120429

Test Generator Questions, Chapter 1, The Profession of Nursing

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Remember

Integrated Process: Nursing Process

Learning Objective: 2

Page and Header: Ancient History, Table 1-1, pp. 3–4.

1. The identity of the nursing profession was primarily shaped during which historical period?

A) Egyptian era

B) Christian era

C) Greek era

D) Roman era

Ans: B

Feedback:

While there are mentions of activities associated with nursing during ancient eras, the profession began to take form in the early Christian era.

Format: Multiple Choice

Chapter: 1

Client Needs: Health Promotion and Maintenance

Cognitive Level: Understand

Integrated Process: Nursing Process

Learning Objective: 2

Page and Header: Florence Nightingale and the Crimean War, p. 4.

2. Florence Nightingale classified sick nursing as:

A) caring for dying clients.

B) using clients' own reparative processes.

- C) addressing community health problems.
- D) caring for clients at risk of illness.

Ans: B

Feedback:

Nightingale viewed sick nursing as helping ill clients use their own reparative processes to get well. This did not always involve clients who were dying or at risk for illness. It also did not address community health problems.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Remember

Integrated Process: Nursing Process

Learning Objective: 2

Page and Header: Development of American Nursing, p. 5.

3. The Nurse Corps of the United States Army was established by whom?

- A) Dorothea Dix
- B) Lillian Wald
- C) Florence Nightingale
- D) Isabel Hampton Robb

Ans: A

Feedback:

Dorothea Dix established the Nurse Corps of the United States Army. Lillian Wald founded the Henry St. Settlement. Florence Nightingale is considered the founder of modern nursing. Isabel Hampton Robb founded the American Nurses Association.

Format: Multiple Choice

Chapter: 1

Client Needs: Health Promotion and Maintenance

Cognitive Level: Remember

Integrated Process: Nursing Process

Learning Objective: 2

Page and Header: Highlights of the Historical Evolution of Professional Nursing, p. 2; Table 1-1, p. 3.

4. Who established the first public health service for the sick and poor?

- A) Dorothea Dix
- B) Lillian Wald
- C) Florence Nightingale
- D) Isabel Hampton Robb

Ans: B

Feedback:

Lillian Wald and Mary Brewster established the Henry Street Settlement, which was the first public health service for the sick and poor. Dorothea Dix established the Nurse Corps of the United States Army. Florence Nightingale is considered the founder of modern nursing. Isabel Hampton Robb founded the American Nurses Association.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Remember

Integrated Process: Nursing Process

Learning Objective: 2

Page and Header: Highlights of the Historical Evolution of Professional Nursing, p. 2; Table 1-1, p. 3.

5. The need for university-based nursing education programs was brought to light during which important historical time?

- A) Spanish–American War
- B) World War I
- C) World War II
- D) Korean War

Ans: C

Feedback:

Esther Lucile Brown, in her report on nursing education published at that time during World War II, wrote that nursing education belonged in colleges and universities, not in hospitals.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Remember

Integrated Process: Teaching/Learning

Learning Objective: 3

Page and Header: Table 1-1, p. 3; Registered Nursing, p. 6.

6. Advocating for financial support for university-based schools of nursing was noted in which government document?

- A) The Goldmark Report
- B) Hill-Burton Amendment
- C) Health Care Initiative Reform Act
- D) Lysaught Report

Ans: A

Feedback:

The Goldmark Report in 1923 advocated for financial support for university-based schools of nursing. The Hill-Burton Amendment provided money for the construction and modernization of healthcare facilities. The Health Care Initiative Reform Act focused on making healthcare affordable. The Lysaught Report evaluated nursing practices and patterns, not financial support.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Remember

Integrated Process: Nursing Process

Learning Objective: 2

Page and Header: Development of American Nursing, p. 5.

7. The first nursing journal owned, operated, and published by nurses was:

- A) *American Journal of Nursing*
- B) *Nurse Educator*
- C) *Nursing Research*
- D) *Standards of Clinical Nursing Practice*

Ans: A

Feedback:

The *American Journal of Nursing* was first published in 1900 and was owned, operated, and published by nurses. Other journals followed at later dates. The *Standards of Clinical Nursing Practice* is not a journal. The *Standards of Nursing Practice* are published by the American Nurses Association.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Understand

Integrated Process: Nursing Process

Learning Objective: 4

Page and Header: Development of American Nursing, p. 5.

8. Which factor has **most** influenced how nurses practice their profession?

- A) Financial support of nursing education
- B) Increased frequency of litigation against nurses
- C) National Commission on Nursing
- D) Increased incidence of chronic illness

Ans: D

Feedback:

Professional organizations speak to nurses on various topics and may have some influence on ideas regarding nursing care, but longer life spans, increased incidence of chronic illness, and new family structures have dramatically affected where and how nurses practice. Litigation and financial support are significant, but these have not had a central role in shaping the profession. The National Commission focused on the skills and responsibilities needed for quality client care.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment; Management of Care

Cognitive Level: Understand

Integrated Process: Teaching/Learning

Learning Objective: 3

Page and Header: Socialization to Professional Nursing, p. 5.

9. A nursing student begins to speak using medical terminology. This is considered to be part of which process?

- A) Occupational literacy
- B) Socialization to the profession
- C) Critical thinking
- D) Career evolution

Ans: B

Feedback:

Socialization is a process that involves learning theory and skills, as well as internalizing an identity appropriate to a specific role; using professional language is an indicator of socialization. This phenomenon is not characterized as career evolution or occupational literacy. It does not reflect critical thinking.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Apply

Integrated Process: Nursing Process

Learning Objective: 4

Page and Header: Registered Nursing, p. 6.

10. The director of nursing (DON) of a major hospital is seeking to hire a nurse with a strong technical background to care for clients on a busy surgical unit. The DON is **most** likely going to hire a nurse prepared at which level of nursing?

- A) Doctoral level
- B) Master's level
- C) Baccalaureate level
- D) Associate level

Ans: D

Feedback:

The ANA's 1965 resolution prompted the 1985 ANA statement adopting the titles of associate nurse (a nurse prepared in an associate degree program with an emphasis on technical practice) and professional nurse (a nurse possessing the baccalaureate degree in nursing) for these two levels. Master's and doctoral prepared nurses possess higher degrees and expertise.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Understand

Integrated Process: Nursing Process

Learning Objective: 3

Page and Header: Baccalaureate Degree Nursing, p 7.

11. A student is choosing an educational path and desires a nursing degree with a track that contains community nursing and leadership, as well as liberal arts. The student would **best** be suited in which type of program?

- A) Licensed practical nursing program
- B) Certification in a nursing specialty

- C) Diploma nursing program
- D) Baccalaureate program

Ans: D

Feedback:

The baccalaureate degree in nursing offers students a full college or university education with a background in the liberal arts. A practical nursing programs is 1 year in length and prepares the person to perform technical skills under the supervision of registered nurses (RNs). Diploma nursing schools were the first type of educational preparation available for RNs. In the United States, diploma programs usually require 3 years of study. Typically, students earn some college credit, but college credit is not awarded for nursing courses. Clinical experience is extensive. Certification is a voluntary process that validates specialty knowledge. It provides professional recognition of the knowledge, skills, and abilities of certified nurses.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Apply

Integrated Process: Nursing Process

Learning Objective: 4

Page and Header: Caregiver, p. 11.

12. A nurse is caring for a young victim of a terrorist attack. During the rehabilitative process, the nurse assists the client in bathing and dressing. What role is the nurse engaged in?

- A) Advocate
- B) Caregiver
- C) Counselor
- D) Educator

Ans: B

Feedback:

As providers of care, nurses assume responsibility for helping clients promote, restore, and maintain health and wellness. Communicating the client's needs and concerns and protecting the client's rights are components of the advocacy role of nursing. The nurse is simply assisting in hygiene measures; no education or counseling is being provided.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Apply

Integrated Process: Nursing Process

Learning Objective: 4

Page and Header: Communicator, p. 12.

13. A nurse receives an x-ray report on a newly admitted client suspected of having a fractured tibia. The nurse contacts the physician to report the findings. What role is the nurse engaged in?

A) Communicator

B) Advocate

C) Caregiver

D) Researcher

Ans: A

Feedback:

Nurses are communicators when they report findings to the healthcare team.

Advocacy involves actions such as protecting the client's safety or rights.

Administering care measures directly to the client demonstrates the caregiver role.

Research involves collecting and analyzing data.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Remember

Integrated Process: Nursing Process

Learning Objective: 5

Page and Header: Standards of Practice, p. 9; Box 1-2, p. 9.

14. The Standards of Practice provide nurses with:

- A) legislation for healthcare reform.
- B) evaluation of care provided by nurses.
- C) measurement criteria for payment.
- D) guidelines for providing care.

Ans: D

Feedback:

Standards of practice are essential because they serve as guidelines for providing and evaluating nursing care. They help to ensure high-quality care and serve as criteria in legal questions of whether adequate care was provided. They are not associated with healthcare reform, are not used as an evaluation mechanism, or are not a criteria for payment.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Apply

Integrated Process: Nursing Process

Learning Objective: 1

Page and Header: Future Trends in Nursing Practice, p. 17.

15. Current trends in nursing practice include the increasing development of:

- A) inpatient psychiatric units.
- B) birthing centers.
- C) homeless shelters.
- D) ambulatory surgery centers.

Ans: B

Feedback:

Current trends in nursing practice include the development of nursing centers, wellness promotion programs, care of older adults, birthing centers, and home and community healthcare. Mental healthcare is more commonly done in the outpatient, not the inpatient, setting. Homeless shelters and ambulatory surgery centers are not current trends.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Remember

Integrated Process: Teaching/Learning

Learning Objective: 4

Page and Header: Standards of Practice, p. 9.

16. All members of the healthcare team are encouraged to read and contribute to the individual plans of care for their clients. Which healthcare provider develops the plan of care?

- A) The RN
- B) The LPN
- C) The physician
- D) Any licensed member of the healthcare team

Ans: A

Feedback:

To serve as evaluation criteria and meet the standards of the Joint Commission (2010), the plan must be developed by a registered nurse, not LPN, nor physician. The plan of care must be documented in the client's health record, and it must reflect the standards of care established by the institution and the profession.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Remember

Integrated Process: Teaching/Learning

Learning Objective: 4

Page and Header: Nursing Responsibilities, p. 11.

17. The nurse is caring for a postoperative client. The physician has written orders for a pain medication, and the order gives a dosage range for the amount the nurse may give depending on the severity of the client's pain. This type of functioning within the healthcare team is called:

- A) authoritative functioning.
- B) independent functioning.
- C) dependent functioning.
- D) collaborative functioning.

Ans: D

Feedback:

Nurses manage collaborative problems using both nurse- and physician-prescribed interventions to reduce the risk of complications (Carpenito-Moyet, 2009). The actions described do not reflect independent, dependent, or authoritative functioning.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Apply

Integrated Process: Nursing Process

Learning Objective: 3

Page and Header: Clinical Nurse Specialist, p. 8.

18. A long-term care facility is seeking the consultation from an advanced practice nurse to educate the staff regarding palliative care for the residents. The facility will benefit most by hiring which advanced practice nurse?

- A) Nurse researcher
- B) Clinical nurse specialist

- C) Nurse practitioner
- D) Nurse administrator

Ans: B

Feedback:

The clinical nurse specialist has advanced experience and expertise in a specialized area of practice, such as gerontology, and would be best suited to provide education on palliative care. The nurse researcher is responsible for the continued development and refinement of nursing knowledge and practice through the investigation of nursing problems. The nurse educator generally has specific clinical specialties and advanced clinical experience in a particular area. The nurse administrator is responsible for managing client care. Nurse practitioners typically provide direct care more often than leading and educating staff.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Apply

Integrated Process: Nursing Process

Learning Objective: 5

Page and Header: Sigma, p. 10.

19. A nurse in the community has been asked to join an organization based on the leadership abilities the nurse has demonstrated both in the nurse's facility of employment and community-based activities. Which organization **best** describes this process?

- A) American Nurses Association (ANA)
- B) American Association of Colleges of Nursing (AACN)
- C) Sigma
- D) National Council of State Boards of Nursing (NCSBN)

Ans: C

Feedback:

Sigma, previously called Sigma Theta Tau, is the nursing honor society that extends membership invitations to students who demonstrate excellence in scholarship and nurses in the community who demonstrate excellence in leadership. The ANA is open to all licensed registered professional nurses. The AACN sets standards and publishes essential components of baccalaureate, master's, and doctoral education in nursing. The NCSBN is responsible for NCLEX testing standards.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Analyze

Integrated Process: Nursing Process

Learning Objective: 4

Page and Header: Nursing Responsibilities, p. 11.

20. The nurse is caring for a postoperative client and administers a pain medication prescribed on a PRN basis by the physician. What **best** describes the type of intervention the nurse is demonstrating?

- A) Dependent intervention
- B) Collaborative intervention
- C) Client advocacy intervention
- D) Nurse-prescribed intervention

Ans: B

Feedback:

The administration of a PRN medication requires a physician-prescribed intervention (the medication order) as well as a nurse-prescribed intervention (determining when the order should be carried out and proper administration of the medication); therefore, this action would be considered a collaborative intervention. Nurse-initiated interventions, such as turning and repositioning a client, are described as nurse-prescribed interventions. Physician-directed actions are described as physician-prescribed interventions. Client advocacy refers to communicating the

needs and protecting the safety of the client. Interventions are not normally categorized as being independent or dependent.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Apply

Integrated Process: Caring

Learning Objective: 6

Page and Header: Love Needs, p. 14.

21. The nurse in a rehabilitative facility makes certain that a client is participating in group activities that are of interest to the client. The nurse is ensuring which client need is met?

- A) Love and belonging
- B) Self-actualization
- C) Safety and security
- D) Self-esteem

Ans: A

Feedback:

The nurse is responsible for making sure the needs of the client are met based on Maslow's hierarchy of needs. Attending a group activity helps meet the needs of love and belonging (the need to feel that one belongs and is loved to avoid loneliness and isolation). Self-actualization is the highest need and refers to realizing fully all of one's abilities and qualities. Safety and security refers to physical and psychological protection issues. Self-esteem indicates a feeling of self-worth.

Format: Multiple Choice

Chapter: 1

Client Needs: Health Promotion and Maintenance

Cognitive Level: Understand

Integrated Process: Nursing Process

Learning Objective: 4

Page and Header: Influence of Today's Healthcare Settings, p. 15.

22. Due to the rising cost of healthcare services, many procedures and treatments are being delivered in what type of setting?

- A) Hospital
- B) Medical centers
- C) Outpatient facility
- D) Community healthcare center

Ans: C

Feedback:

Many procedures and treatments are being delivered in outpatient settings rather than hospital and medical centers, which significantly increase healthcare costs to the client and insurance company. "Community healthcare centers" typically refer to facilities such as day care centers or ambulatory clinics.

Format: Multiple Choice

Chapter: 1

Client Needs: Health Promotion and Maintenance

Cognitive Level: Understand

Integrated Process: Teaching/Learning

Learning Objective: 2

Page and Header: Development of American Nursing, p. 5; Table 1-1, p. 3.

23. Nurses that enlist their services to the military are able to do so thanks to the work of which organizer of healthcare?

- A) Linda Richards
- B) Florence Nightingale
- C) Theodor Fliedner
- D) Dorothea Dix

Ans: D

Feedback:

Dorothea Dix, while not a nurse, established the Nurse Corps of the United States Army during the Civil War. Linda Richards was the first trained nurse to graduate from a nursing program. Theodor Fliedner opened the first hospital-based school of nursing, and Florence Nightingale was nursing's first professional leader.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Understand

Integrated Process: Nursing Process

Learning Objective: 3

Page and Header: Practical Nursing, p. 6.

24. A prospective nursing student desires a career that will allow the student to provide client care and to assist professional nurses with routine technical procedures. The prospective student needs to be employed in a full-time position quickly due to economic hardship. What type of nursing program would **best** suit this student?

- A) Associate of science registered nursing program
- B) Baccalaureate of science registered nursing program
- C) Licensed or vocational nursing program
- D) Diploma nursing program

Ans: C

Feedback:

A licensed practical or vocational nursing program will allow the student to earn a technical certificate in 1 year and sit for the state board of nursing examination to be licensed as an LPN or LVN. An associate program will take 2 years, and a baccalaureate program will take 4 years. There are very few diploma programs remaining in the United States, and these programs typically take 3 years to complete.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Understand

Integrated Process: Nursing Process

Learning Objective: 3

Page and Header: Graduate Entry Programs, p. 7.

25. What type of nursing program would allow a student with a 4-year degree in psychology to enter and complete a baccalaureate degree in nursing, take the NCLEX examination, and transition into a master of science in nursing (MSN) program?

- A) Baccalaureate program
- B) Graduate entry program
- C) Advanced degree program
- D) Continuing education program

Ans: B

Feedback:

Graduate entry program students possess a baccalaureate degree in a field other than nursing. These students can track directly into a master's or doctorate in nursing program after successfully passing the NCLEX-RN. The baccalaureate degree in nursing (or bachelor of science in nursing [BSN]) offers students a full college or university education with a background in liberal arts. The programs are rigorous and provide students with credits for nursing courses and clinical experiences in all areas of nursing practice. Advanced degree nursing programs would require the person to have a BSN before entering the program. Continuing education programs are for licensed nurses.

Format: Multiple Choice

Chapter: 1

Client Needs: Psychosocial Integrity

Cognitive Level: Apply

Integrated Process: Nursing Process

Learning Objective: 4

Page and Header: Educator, p. 11.

26. The nurse is performing an extensive dressing change on a client with burns. The nurse explains each step as it is being performed. The nurse is acting in which role by providing explanation of each step?

- A) Caregiver
- B) Client advocate
- C) Decision-maker
- D) Educator

Ans: D

Feedback:

The nurse is acting in the role of educator by explaining each step. The act of changing the dressing and providing support is the caregiver role. In the advocate role, the nurse consistently takes responsibility for protecting clients and helping them assert their legal rights. In the decision-making role, the nurse uses problem-solving skills to overcome barriers.

Format: Multiple Choice

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Apply

Integrated Process: Caring

Learning Objective: 4

Page and Header: Manager and Coordinator, p. 11.

27. The nurse offers a client two possible times to ambulate, as ordered by the physician. The nurse is acting in which nursing role?

- A) Communicator
- B) Client advocate
- C) Manager and coordinator

D) Caregiver

Ans: C

Feedback:

While the nurse is acting in many roles, the nurse is managing and coordinating the care for the client by giving choices on when care will be implemented. In the communicator role, the nurse communicates findings to members of the healthcare team verbally and in writing. In the advocate role, the nurse consistently takes responsibility for protecting clients and helping them assert their legal rights. The act of assisting the client with ambulating would reflect the caregiver role.

Format: Multiple Selection

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Apply

Integrated Process: Caring

Learning Objective: 4

Page and Header: Nursing Responsibilities, p. 11.

28. The nurse is caring for a client who is on a ventilator. The nurse is bathing the client and talking to the client while carrying out care. The nurse is also telling the client what is going to happen next. The nurse speaks to the client in a soothing manner. The nurse is acting in which role? Select all that apply.

A) Caregiver

B) Decision-maker

C) Communicator

D) Educator

E) Client advocate

Ans: A, C, D

Feedback:

The nurse is fulfilling the role of caregiver by providing the care and speaking to the client in a soothing manner. The nurse is also acting as a communicator by talking to the client, even if the client can't respond. The nurse is also acting as an

educator by informing the client of the care that will be performed. The nurse is not assisting in making any decisions or speaking on behalf of the client.

Format: Multiple Selection

Chapter: 1

Client Needs: Safe and Effective Care Environment: Management of Care

Cognitive Level: Remember

Integrated Process: Nursing Process

Learning Objective: 6

Page and Header: Nursing Competencies, p. 12.

29. The Quality and Safety Education for Nurses (QSEN) initiative has identified which key competencies for nurses? Select all that apply.

- A) Client-centered care
- B) Teamwork and collaboration
- C) Evidence-based practice
- D) Quality improvement
- E) Correct documentation

Ans: A, B, C, D

Feedback:

The QSEN has identified client-centered care, teamwork and collaboration, evidence-based practice, and quality improvement as a means for nurses to improve the quality and safety of client care wherever they work. Additional key competencies identified are safety and informatics. Documentation is not a key competency.

Format: Multiple Choice

Chapter: 1

Client Needs: Health Promotion and Maintenance

Cognitive Level: Apply

Integrated Process: Teaching/Learning

Learning Objective: 6

Page and Header: Change Theory, p. 15; Table 1-3, p. 13.

30. The nurse is caring for a client with diabetes who expresses the desire to learn more about a diabetic diet in an attempt to gain better blood sugar control. The nurse's actions will be based on which theory?

- A) Change theory
- B) Maslow's hierarchy of human needs
- C) Neuman's systems model
- D) Watson's theory of caring

Ans: A

Feedback:

The client has identified a need for change, which will guide the nurse's actions. Maslow's hierarchy of human needs helps nurses prioritize actions. Neuman is a nursing theorist who focused on stress and the reaction to it. Watson, also a nursing theorist, focused on curative factors and transactions.

Format: Multiple Choice

Chapter: 1

Client Needs: Psychosocial Integrity

Cognitive Level: Understand

Integrated Process: Nursing Process

Learning Objective: 1

Page and Header: Today's Nurse, p. 17.

31. What is the major difference between nursing students today and nursing students 50 years ago?

- A) Today's students are less caring.
- B) Today's students are more intelligent.
- C) Today's students reflect a more diverse population.
- D) Today's students are less likely to be competent nurses.

Ans: C

Feedback:

Nursing students 50 years ago were mostly women and entered nursing school immediately after graduating from high school. Many of today's nursing students have pursued other career paths prior to nursing, are of various ethnic backgrounds, and have jobs and families to consider while attending nursing school. In addition, many more men have entered the field of nursing over the last 50 years.