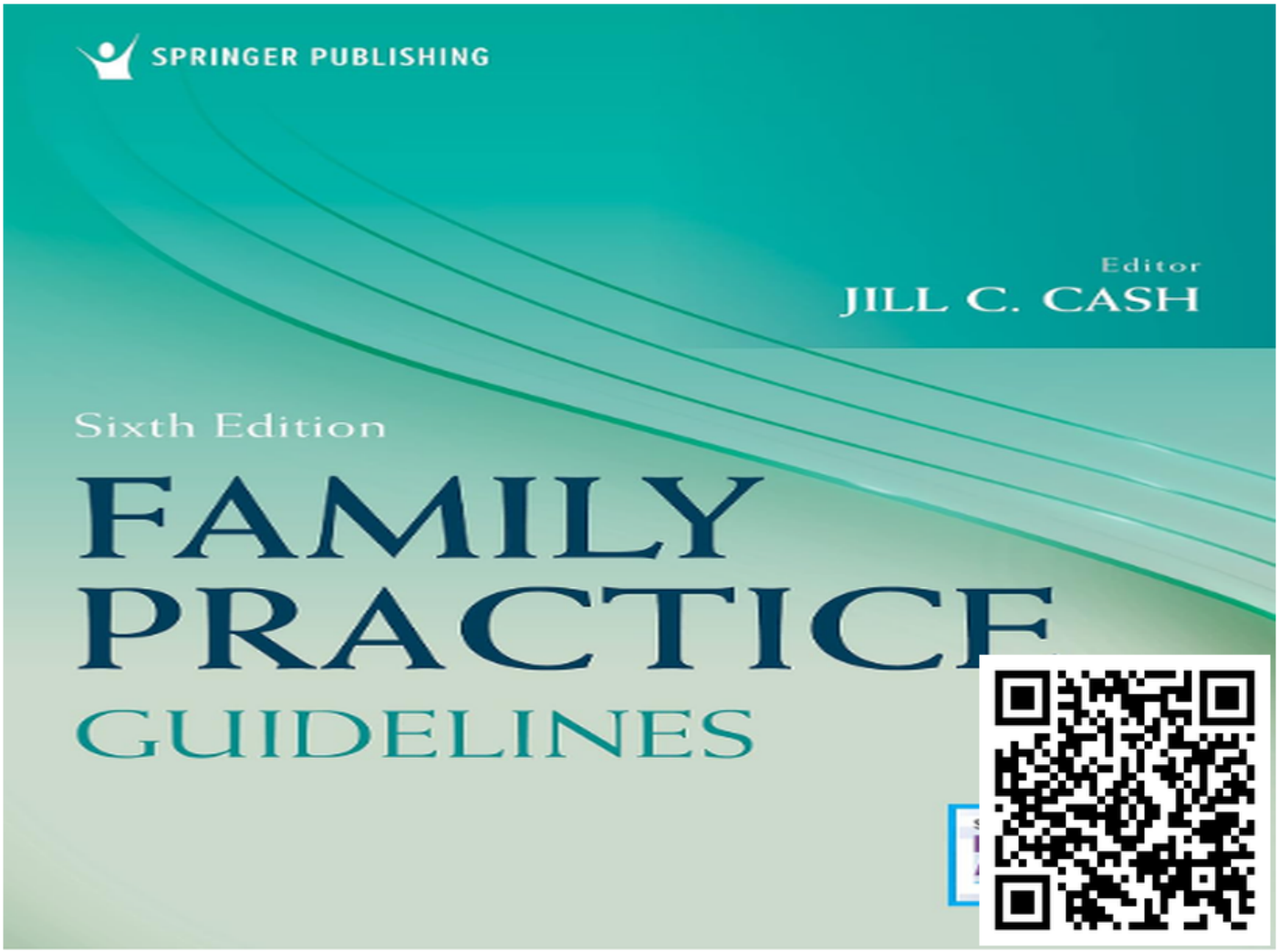

SPRINGER PUBLISHING

Editor

JILL C. CASH

Sixth Edition

FAMILY PRACTICE GUIDELINES

FAMILY PRACTICE GUIDELINES

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FAMILY PRACTICE GUIDELINES

SIXTH EDITION

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This book is dedicated to my children, Kaitlin and Carsen, for their support and love.

"Be fearless in the pursuit of what sets your soul on fire."

—Unknown

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PREFACE

We are excited to collaborate on this sixth edition of *Family Practice Guidelines*. The guidelines have been written and updated by experienced nurse practitioners. This valuable resource is designed to assist nurse practitioners in organizing and using the content in a quick-reference format. Emphasis is placed on history taking, physical examination, and key elements of the diagnosis. Useful website links have also been incorporated, along with updated client teaching guides.

This book is organized into chapters using a body-system format. The disorders included within each chapter are organized in alphabetical sequence for easy access. Disorders that are more commonly seen in the primary care setting are included. *Clinical pearls* and bold and italic text alert the practitioner to key information throughout the chapters. Client teaching guides are also available for many topics and appear at the end of their respective chapters. These guides are also available as downloadable PDFs

ORGANIZATION

The book is organized into two main sections:

- *Section I: Guidelines*: Chapters containing the individual disorder guidelines.
- *Section II: Procedures*: Procedures that are commonly conducted within the office or clinic setting.

NOTABLE UPDATES

- The sixth edition has been updated and features new disease topics, tables, algorithms, and updated clinical content for each system.
- Health Maintenance: Centers for Disease Control and Prevention (CDC) guidelines on health maintenance and immunization schedules for adults and children.
- Dermatology Guidelines: Dermatology guidelines include color photos of skin rashes/disorders and the newest treatment guidelines.
- Respiratory Guidelines: Focused guidelines for the management of asthma and more.
- Cardiovascular Guidelines: Updated guidelines for heart failure and hypertension.
- Genitourinary Guidelines: Updated management of urinary tract infections, erectile dysfunction, and premature ejaculation.
- Neurologic Guidelines: Key updates for stroke management.
- Infectious Diseases: Current CDC guidelines on the management of coronavirus (COVID-19).

We hope you are able to use the sixth edition of *Family Practice Guidelines* in education and practice and find it a valuable resource to guide your clinical decision-making for your clients.

—Jill C. Cash

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It has been a pleasure to work with the editorial staff and production team at Springer Publishing Company.

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To Kris Parrish, Production Manager, and Joanne Jay, Vice President, Production: Thank you for your talent and support in finalizing the material and guiding this book toward publication.

—Jill

INSTRUCTOR RESOURCE

- Mapping to AACN Essentials: Core Competencies for Professional Nursing Education are available to qualified instructors by emailing textbook@springerpub.com

SECTION I

GUIDELINES

1. Health Maintenance Guidelines
2. Public Health Guidelines
3. Pain Management Guidelines
4. Dermatology Guidelines
5. Eye Guidelines
6. Ear Guidelines
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8. Throat and Mouth Guidelines
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23. Assessment Guide for Sport Participation

CHAPTER 1

HEALTH MAINTENANCE GUIDELINES

Jill C. Cash and LaDawna Goering

This chapter provides an overview and resources for a successful health promotion and disease prevention visit for populations across the life span. Current world population presents many challenges, including cultural and genetic ones. This chapter helps a provider understand the needs of different sociocultural groups and best practices for providing care accepted by each individual.

CULTURAL DIVERSITY AND SENSITIVITY

A. Each office visit is an opportunity to gain more knowledge about a client's health beliefs and practices. Cultural sensitivity is the responsibility of all healthcare providers. Inadequate awareness of the client's health beliefs and practices influenced by culture may lead to mistrust. This may result in barriers including inappropriate delivery of care, increased cost, noncompliance, and seeking care elsewhere. Thus, this may eventually lead to even more barriers to healthcare access, resulting in unfavorable healthcare outcomes. Title VI of the Civil Rights Act is very specific about providing services that are less than the existing standard of care to anyone based on race, age, sex, or financial status. According to this document, "No person in the United States shall, on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financing assistance" (U.S. Department of Justice [USDJ], 2021).

B. Culture is more than nationality or race. Culture influences a person's reasoning, decisions, and actions. It is the accumulation of learned beliefs, values, habits, and practices. Culture influences decision-making, thoughts, what is approved or disapproved, and what is normal or not, which are all acquired from close personal relations (family/members of society) over time.

C. Cultural diversity exists when groups from different cultures must coexist within an environmental area (family, neighborhood, township, city, or country). Knowing that there are differences in cultures and not assigning values among different cultures reflect cultural sensitivity. However, significant differences may exist in the way healthcare is perceived and practiced due to the differing values and beliefs regarding health and illness inherent among people of varying cultural backgrounds.

FACTORS CONTRIBUTING TO CULTURAL DIVERSITY

A. Fewer White non-Hispanic children.
B. Increase in immigration.
C. Efficiency in transportation and travel.
D. Increase in the homeless and poor populations.
E. Increase in divorce rate.
F. Increase in single parenting.
G. Grandparents raising grandchildren.
H. Substance abuse.
I. Violence.
J. Transgender sex changes.
K. Homosexual acceptance.
L. Information explosion/high technology.
M. Illiteracy.
N. Increase in non-English-proficient healthcare providers.
O. Federal regulations.

THOUGHTFUL CONSIDERATIONS

A. Providing care without being sensitive to the cultural needs of a client may suggest that the healthcare provider's values and beliefs are superior to those of the client and may lead to disparity of care. The limited client involvement in care may result in noncompliance, placing clients at greater risk of health-related complications. The delay in provision of healthcare can result in life-threatening complications.

B. Numerous cultural resources are available throughout the literature and the internet. Preference as to which educational/assessment tools to use is the healthcare provider's prerogative.

C. The following are guidelines for promoting cultural sensitivity in the clinical setting:

1. Provide a cultural diversity self-assessment/practice organization.
    a. Consult online internet self-assessment tools, for example on the Centers for Disease Control and Prevention (CDC, 2015) website at www.cdc.gov/asthma/program_eval/cultural_competence_guide.pdf.
    b. Download self-assessment tools from public sites. **Resettlement Assistance Program, Cultural Competence** provides a validated tool (rapworkers.com/resources/cultural-competence).
    c. Use existing self-assessment tools and make necessary changes to fit the need of your community.
2. Identify the needs of the population served.
    a. Understand the community and its health status.
    b. Evaluate the resources, attitudes, and barriers inside the community and the practice location.
        i. Access to resources.
        ii. Notification of assistance.
        iii. Range of assistance options:
            1) Transportation.
            2) Communication; consider an interpreter (personal vs. automated):
                a) Identify bilingual staff.

The contributions of Debbie Gunter, Mariya Tankimovich, and Angelito Tacderas to this chapter in prior editions are acknowledged here.

b) Use family members or personal acquaintances as interpreters (adults only).
c) Provide multilingual written materials.
3) Education (meaningful/multilingual):
a) User-friendly.
b) Friendly technology.

3. Educate staff to cultural diversities.
a. Assessments should include the client's health values and beliefs.
b. Communication should be meaningful.
i. Be precise and clear.
ii. Maintain eye contact when speaking.
iii. Use plain language.
iv. Observe facial expressions and body language.
v. Use short sentences to explain lengthy information.
vi. Avoid medical jargon.
vii. Use repetition for emphasis.
viii. Ask questions to confirm understanding.

4. Schedule longer appointments if needed.
5. Healthcare providers should clarify the limitations of a healthcare provider's role (Spector, 2017; Andrews & Boyle, 2015; Douglas, et al., 2014).

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HEALTH MAINTENANCE DURING THE LIFE SPAN

A. Health maintenance involves identifying individuals who are at risk of health problems and encouraging them to develop behaviors that reduce these risks. An important aspect of health maintenance is client education, including teaching individuals about risk factors for a disease and ways to modify their behaviors to reduce risks of comorbidities. This book contains Client Teaching Guides that the practitioner may use for client education; these forms are found at the end of each chapter. They may be photocopied by the practitioner, filled in according to the client's evaluation and needs, and given to the client.

B. Family history is an important component of any client visit. Health maintenance visits allow more time for a more thorough collection of detailed family history. Advances in genetic sciences contribute to increased value to understanding detailed family history in medical practice. The American Medical Association includes information and guides for prenatal and pediatric screening and understanding and collecting family and genetic history on their website at www.ama-assn.org/delivering-care/precision-medicine/collecting-family-history.

C. This chapter describes tools that the practitioner can use in preventive healthcare assessment, which include websites, screening guidelines, and suggestions for client education and counseling.

PEDIATRIC WELL-CHILD EVALUATION

A. The 2021 Recommendations for Preventive Pediatric Health Care provided by the American Academy of Pediatrics (AAP) are available in a chart on the AAP website (www.aap.org/en-us/documents/periodicity_schedule.pdf). It is designed for use starting with prenatal care visits and throughout adolescence, ending at 21 years of age. A detailed documentation from each visit is required and is documented either on electronic health/medical record (EHR or EMR) or on paper. One of the documentation formats used arranges information under Subjective, Objective, Assessment, and Plan (SOAP). The American Academy of Family Physicians (2020) provides a website with several forms for different types of visits. These forms can be used for when either paper charting is unavoidable or when choosing a new EHR/EMR program for the practice. These forms are accessible through the following link: www.aafp.org/fpm/toolBox/viewToolBox.htm.

B. The growth charts for children are available in imperial and metric systems, as well as in multiple languages. They can be found on the Centers for Disease Control and Prevention (CDC) website at www.cdc.gov/growthcharts. Immunization schedules for children and adults are accessible through the CDC website as well (www.cdc.gov/vaccines/schedules/index.html). Most of the states have online record systems for easy tracking of immunizations administered. They could be accessed through the CDC Immunization Information Systems (IIS) website at www.cdc.gov/vaccines/programs/iis/contacts-locate-records.html. The IIS is helpful in cases of school transfer and lost paper records. Paper records are available on numerous sites online. The following are two examples for children/teens and adults:

1. Vaccine Administration Record for Children and Teens (available at immunize.org/catg.d/p2022.pdf).
2. Vaccine Administration Record for Adults (available at immunize.org/catg.d/p2023.pdf).

C. Many cases of rejection of immunization have been reported. It is important to realize that parents and adults have a right to refuse immunizations for their children or themselves. However, it is essential to educate the population about the latest research and the implications of declining immunizations.

ANTICIPATORY GUIDANCE BY AGE

A. The anticipatory guidance outline and resources for motivational interviewing are provided by the AAP (2021a) and Bright Futures and are found at brightfutures.aap.org/search/Pages/default.aspx?k=motivational%20interviewing. They provide a quick reference for the practitioner conducting either a child's initial visit or an adult's annual visit. A more detailed resource called Promoting Healthy Development focuses on intricate details of quickly growing and changing children. It can be found at brightfutures.aap.org/Bright%20Futures%20Documents/BF4_HealthyDevelopment.pdf. This resource lists topics that the practitioner should discuss with the caregiver. Information discussed during the visit should be supplemented with booklets, teaching guides, and brochures for the caregiver. Additional tools for health promotion and more information ▶

for effective health promotion visits are found on the Bright Futures website at brightfutures.aap.org/materials-and-tools/guidelines-and-pocket-guide/Pages/default.aspx.

NUTRITION

A. Proper nutrition is an essential part of maintaining health and preventing diseases. Providers should promote well-balanced diets to all clients, with an emphasis on the prevention of obesity. Diet modification is an important part of disease or disorder management. The U.S. Department of Agriculture (USDA) provides a variety of interactive educational tools on nutrition, weight management, and physical activity. It is recommended that clients use these tools for family education on healthy diet and lifestyle. Diet information is found in Appendix B: Diet Recommendations. The Mayo Clinic provides an excellent online resource on healthy diets for children. It can be accessed at www.mayoclinic.org/healthy-lifestyle/childrens-health/in-depth/nutrition-for-kids/art-20049335 . The USDA produces food plans and dietary guidelines for Americans, which are available at www.fns.usda.gov/cnpp/dietary-guidelines-americans, and one of the easiest guides for determining servings can be accessed at www.myplate.gov/. More detailed serving size recommendations are available at food-guide.canada.ca/en/tips-for-healthy-eating/make-healthy-meals-with-the-eat-well-plate/ from the Government of Canada.

B. The obesity epidemic is affecting global population health. It is the responsibility of all healthcare providers to alert and educate families about healthy nutrition. Each office visit is an opportunity to evaluate the client's weight and to discuss exercise programs. While pain assessment has become the "fifth vital sign" in the hospital setting, the body mass index (BMI) has become the fifth vital sign in the outpatient setting.

C. Teaching parents the correct serving sizes for children will help guide their children's eating habits for life. The AAP-sponsored healthychildren.org (2015) recommends that portion sizes for fruits and vegetables are one-quarter cup cooked, one-half piece fresh, or one-quarter cup of juice for children aged 1 to 6 years (healthychildren.org/English/healthy-living/nutrition/Pages/Portions-and-Serving-Sizes.aspx). Serving sizes for older children and adults are based on food pyramids. Use food pyramids to teach and reinforce proper nutrition. Some helpful websites on nutrition are as follows:

1. USDA resources for nutrition and health at www.choosemyplate.gov.
2. MyPlate Kids' Place at www.choosemyplate.gov/kids
3. Childhood Nutrition website at www.nourishinteractive.com, which is an informative website that gives helpful information such as:
   a. Controlling portion sizes.
   b. Parent tips tool.
   c. Interactive nutrition tools.
   d. A fun area for children, with interactive nutrition games.
   e. Healthy living tips ready to print.
4. The Harvard Medical School online publication provides a good resource for vitamins found in foods. It can be accessed at www.health.harvard.edu/staying-healthy/the-best-foods-for-vitamins-and-minerals.
5. The American Heart Association (AHA) is another valuable resource for education about nutrition. The website provides information about serving size for each group (www.heart.org/en/healthy-living/healthy-eating/eat-smart/nutrition-basics/suggested-servings-from-each-food-group).

D. Height and weight are used to calculate BMI. The mathematical calculation is BMI = kg/m^2; however, the internet provides easy-to-use BMI calculators.

1. The National Heart, Lung, and Blood Institute (NHLBI, 2019) includes a BMI calculator in its Aim for a Healthy Weight education initiative at www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm. This support site also includes client information on weight assessment and health risk, nutrition, physical activity, and menu planning.
2. The CDC provides an online source for calculating the BMI of children and teens based on growth charts at www.cdc.gov/healthyweight/bmi/calculator.html. The CDC's website also provides information on nutrition, micronutrient malnutrition, weight assessment and risks, obesity, physical activity, and parental tips.

E. Malnutrition and vitamin and mineral deficiency are commonly seen in the older adult population. Vitamins B_6, B_{12}, D, and E, folic acid, zinc, calcium, and iron are often deficient in the elderly diet, along with protein and calorie deficiencies (Stepler, 2016). Multiple factors contribute to malnutrition in senior adults, including age-related changes, illness, medication effects, as well as socioeconomic and psychological effects (CDC, 2021d). The National Institute on Aging provides an excellent resource on the vitamin and mineral needs of people over 50 years of age at www.nia.nih.gov/health/vitamins-and-minerals.

F. Using Zawada's (1996) acronym WEIGHT LOSS can help you easily identify the common causes of weight loss in older adults.

W: Wandering and not eating due to forgetting to take time to eat.
E: Emotional problems, including depression.
I: Impecuniosity (finances do not meet the needs to buy food and other things).
G: Gut problems.
H: Hyperthyroidism or other endocrine abnormalities.
T: Tremor or neurologic problems that make eating and holding utensils difficult.
L: Low-salt, low-cholesterol diets avoided, often due to disliking the taste of recommended diets.
O: Oral problems: edentulous, poor dental care, dentures not fitting, and mouth disorders such as oral ulcers.
S: Swallowing problems and difficulty swallowing or chewing food due to stroke or other impairments.
S: Shopping or food preparation barriers, inability to purchase or prepare food, and no resources for assistance.

G. Identification of the factors contributing to an elderly client's malnutrition will assist you, the client, and the client's family in resolving them. Utilize your state's Area Agencies on Aging (AAA) for information on elder care resources in your area. Local area agencies could be located through the National Association of Area Agencies on Aging at www.n4a.org/.

EXERCISE

A. Physical exercise is a vital component of health maintenance. Exercise provides cardiovascular fitness and weight control, prevents osteoporosis through weight-bearing exercise, ▶

and decreases lipids. Exercise is important for flexibility, strength, and coordination. Exercise can also be used for both weight control and reduction. The Mayo Clinic (2021), at www.mayoclinic.org/healthy-lifestyle/weight-loss/in-depth/weight-loss/art-20047752, states that approximately 3,500 calories must be burned to lose 1 lb of fat. Therefore, along with exercise, caloric intake must remain the same or be decreased to result in weight loss.

PLANNING AN EXERCISE PROGRAM

A. Exercise plans should be started after a health provider screens a client because heavy physical exertion may trigger an acute myocardial infarction. Factors most likely to influence risk are age, medical conditions, hypertension, and the intensity of the exercise planned. The medical history screening identifies individual and family history of problems such as coronary heart disease, hypertension, and diabetes. Review health habits such as previous exercise or sedentary lifestyle, diet, and smoking/tobacco use.

B. Providers need to evaluate the client using screening tests before prescribing an exercise program. Consider the client's age and all comorbidities for additional tests.

1. Complete blood count.
2. Blood glucose.
3. Cholesterol screening.
4. EKG (in clients older than 40 years).
5. Holter monitoring for arrhythmias.

C. Persons with a heart murmur or other abnormal physical finding should defer exercise until the full nature of the disorder has been evaluated. The best measure of an exercise work capacity is determining oxygen consumption at maximal activity, which is measured with a stress test. Hypertension, elevated resting blood pressures, and chronic obstructive lung disease are other factors that require attention before participation in exercise. Persons with hypertension should undergo a thorough evaluation, have antihypertensive agent(s) prescribed, and be monitored periodically during their prescribed graded exercise program.

D. Physical exercise should be strictly monitored in the following conditions and may need to be curtailed, or even stopped, based on the condition:

1. Congestive heart failure.
2. Uncontrolled hypertension.
3. Uncontrolled epilepsy.
4. Uncontrolled diabetes.
5. Atrioventricular (AV) heart block.
6. Aneurysms.
7. Ventricular instability.
8. Aortic valve disease.

E. Measurement of heart rate during exercise is an easy and inexpensive method to evaluate cardiovascular fitness. Target heart rates vary by the person's physical condition and age. The Mayo Clinic (2021b) provides a formula to calculate target heart/aerobic activity level zone range at www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/exercise-intensity/art-20046887.

CLIENT EDUCATION BEFORE EXERCISE

A. All exercise program prescriptions should include frequency, duration, intensity, and time to abort the exercise. Persons should be educated on the signs and symptoms of heat exhaustion and should be advised when to seek first aid.

B. The AHA (2021) (www.heart.org/en/healthy-living/fitness/fitness-basics/aha-recs-for-physical-activity-in-adults) provides recommendations for exercise activity for adults and children in accordance with the guidelines made available by the Office of Disease Prevention and Health Promotion (ODPHP) through the following website: health.gov/paguidelines/second-edition. Both organizations recommend evenly spread-out weekly 150 minutes of moderate or 75 minutes of vigorous exercises or a combination of both for adults, and daily 60 minutes of vigorous activity for adolescents. It is recommended that children be active throughout the day. Descriptions of different types of exercises could be accessed through the AHA website at www.heart.org/en/healthy-living/fitness/fitness-basics/aha-recs-for-physical-activity-in-adults. The ODPHP website includes scientific reports and information about the Move Your Way campaign. Both can be used to encourage clients to move more and these are accessible at health.gov/paguidelines/second-edition/.

C. The American College of Obstetricians and Gynecologists (ACOG, 2019) provides recommendations for continuing or starting exercise programs during pregnancy at www.acog.org/Patients/FAQs/Exercise-During-Pregnancy. The ACOG's recommendation is to start prenatal visits early and to discuss exercise plans with a healthcare provider.

D. Swimming and cycling are considered low-impact exercises by the Arthritis Foundation (www.arthritis.org/living-with-arthritis/exercise/arthritis-friendly/lap-swimming.php) and Norwegian sports medicine and science researchers. It is recommended that resistance training exercises be included for swimmers and cyclists (Andersen et al., 2018).

E. For exercise to benefit individuals, it must be continued lifelong. The healthcare provider should evaluate individual lifestyle and preferences in designing an exercise program. One exercise program can become boring over an extended period and probably will not be continued. A variety of activities, class participation, and positive reinforcements will help keep physical activity fun as an integral part of a health maintenance program. *See Client Teaching Guide for this chapter, "Exercise."*

F. Healthcare professionals who will be monitoring and prescribing exercise plans for large numbers of individuals are encouraged to seek special training and certification. The American College of Sports Medicine (ACSM) has a program that includes training for healthcare professionals and a book titled *ACSM's Guidelines for Exercise Testing and Prescription.*

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OTHER COLLABORATING PROVIDERS

A. The role of the primary care provider is to ensure that the client becomes a partner in preventive health measures to avoid disease, disease complications, and comorbidities. The practitioner should refer the client to other healthcare providers to continue health maintenance according to specialty. The primary care provider functions as the main point of care coordination.

1. Dental care:
   a. Dental care should be routinely discussed.
   b. Once teeth emerge, brushing should begin with a small, soft brush.
   c. In children, dental care should begin with soft, rubber brushes for gum care.
   d. Encourage the child to brush teeth twice daily to promote healthy habits.
   e. Refer the client to a dentist at 3 years, unless problems arise earlier.
   f. Older children should be encouraged to use mouth guards with contact sports.
   g. Encourage flossing when the child has the cognitive and developmental dexterity to use dental floss.
2. Vision care:
   a. Begin initial vision screening for children at 3 years of age using age-appropriate eye chart.
   b. School screening should include a vision-screening component.
   c. Refer clients to an optometrist for routine evaluation.

ADULT RISK ASSESSMENT FORM

A. The Adult Risk Assessment Form (Exhibit 1.1) should be used in all adults. It is used to evaluate an individual's risk for particular diseases. The practitioner should interview the client, assessing for the risk factors listed on the Risk Assessment Form. The family history of first-degree relatives (parents, siblings, and children) should also be discussed as many diseases are related to genetic factors. Use provided form to guide electronic health/medical record (EHR/EMR) upgrades. For paper charts, keep a copy of the Risk Assessment Form in the front of the client's chart and update yearly or as needed. When complete, this tool can guide the practitioner in determining the assessment needs of each client.

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ADULT PREVENTIVE HEALTHCARE

A. The Adult Preventive Healthcare Flow Sheet given in Exhibit 1.2 helps the practitioner identify changes in the adult client's risk factor status, make recommendations for health maintenance (e.g., immunizations, laboratory work, and physical examinations), and educate clients on prevention (Exhibit 1.2). Screening guidelines for each of these can be found in the associated chapters of this book, according to the national association recommendations (e.g., screening recommendations for mammograms were obtained from the American Cancer Society). The Adult Health Maintenance Guide in Exhibit 1.3 can be used as a quick reference for the practitioner when evaluating clients' adherence to preventive measures. Keep a copy of this flow sheet and guide in the front of the client's chart, where they can be reviewed routinely and updated as necessary. If using electronic medical records, a special section should be identified as routine health maintenance.

EXHIBIT 1.1 Adult Risk Assessment Form

Name _____ DOB _____ Chart # _____

Allergies _____

Occupation _____

Family History	
First-degree relatives with remarkable diseases (e.g., asthma, allergies, hypertension, diabetes mellitus, coronary artery disease [CAD], cancer, and thyroid disease)	
1.	6.
2.	7.
3.	8.
4.	9.
5.	10.

Assess the client for the following risk factors:

A. Coronary heart disease:
- **1.** High-fat/high-cholesterol diet.
- **2.** Obese.
- **3.** Elevated cholesterol level.
- **4.** Stroke.
- **5.** Hypertension.
- **6.** Tobacco use.

B. Lung cancer:
- **1.** High-fat/high-cholesterol diet.
- **2.** Tobacco use.
- **3.** Smoking.

C. Cervical cancer:
- **1.** Early age of first intercourse.
- **2.** Multiple sexual partners.
- **3.** Human papillomavirus (HPV) immunization series.

D. Breast cancer:
- **1.** Nulliparous.
- **2.** Primigravida after age 35 years.
- **3.** High-fat diet.
- **4.** Family history at early age.

E. Colon cancer:
- **1.** History of polyps.
- **2.** High-fat diet.

F. Osteoporosis:
- **1.** Less than 1 g of calcium per day.
- **2.** History of tobacco or alcohol use.
- **3.** Sedentary lifestyle.
- **4.** Thin, Caucasian.
- **5.** Female gender.

G. Glaucoma/visual impairment:
- **1.** Family history of glaucoma.
- **2.** Diabetes mellitus.

H. Sexually transmitted infections (STIs)/HIV:
- **1.** Alcohol and drug use or abuse.
- **2.** Multiple sexual partners.
- **3.** Homosexual or bisexual partner.
- **4.** History of intravenous drug use.
- **5.** History of blood transfusion.
- **6.** Exposed to or history of STI.

I. Substance abuse:
- **1.** Alcohol or drug use history.
- **2.** Family history of substance abuse.
- **3.** Stress or poor coping mechanisms.
- **4.** Administer the *CAGE* assessment (Steinweg & Worth, 1993).
  - **i.** Have you ever tried to ***C***ut down on your alcohol/drug use?
  - **ii.** Do you get ***A***nnoyed if someone mentions your use is a problem?
  - **iii.** Do you ever feel ***G***uilty about your use?
  - **iv.** Do you ever have an "***E***ye-opener" first thing in the morning after you have been drinking or using the night before?

J. Accidents and suicide:
- **1.** Family history of suicide.
- **2.** Alcohol or tobacco use.
- **3.** History of depression.
- **4.** High-stress or "hot-reactor" personality.
- **5.** Male sex.
- **6.** Alcohol use.
- **7.** Previous suicide attempt.
- **8.** Poor coping mechanisms or stress.

K. Safety:
- **1.** Does not use seat belt or car seat.
- **2.** Drinks and drives.
- **3.** Drives over the speed limit.
- **4.** Does not wear safety helmet if driving motorcycle.
- **5.** Inadequate number of smoke detectors or none in the home.
- **6.** Firearms in the home.
- **7.** Feels safe at home/at risk for domestic violence.

IMMUNIZATIONS

A. The Centers for Disease Control and Prevention (CDC) is the primary source of current immunization schedules. Consult the CDC's website for pocket-sized schedules, printable versions, and versions for mobile devices. Downloadable information for smartphones is available on the CDC website at www.cdc.gov/vaccines/schedules/hcp/index.html.

IMMUNIZATIONS FOR TRAVEL

A. The CDC recommends certain vaccines to protect travelers from illnesses present in other parts of the world and to protect others on return to the United States. The CDC's Travelers' Health website is at www.nc.cdc.gov/travel. It is an interactive website that individualizes the needs of travelers to their specific destination. Vaccinations required are dependent on the area of travel and other optional factors (www.nc.cdc.gov/travel):

1. Travel destination.
2. Travel season.
3. COVID-19 travel health notices.
4. Age.
5. Pregnancy or breastfeeding.
6. Traveling with infants or children.
7. Immune-compromised.
8. Chronic disease.
9. Extended stay.
10. Visiting friends and family.

B. The CDC also has a Health Education sheet for travelers at wwwnc.cdc.gov/travel/page/traveler-information-center.

EXHIBIT 1.2 Adult Preventive Healthcare Flow Sheet

Immunization Schedule				
Immunization	**Date**	**Date**	**Date**	**Date**
Tetanus/diphtheria or tetanus/diphtheria/pertussis				
Measles, mumps, rubella (MMR)				
Hepatitis A				
Hepatitis B				
Influenza (yearly)				
Pneumococcal (PCV 15, PCV20, PPSV23)				
Varicella (19–49 years)				
Zoster recombinant (>50 years)				
COVID vaccine/booster				

Assess clients for the following behaviors:

Risk Assessment				
Examination	**Date**	**Date**	**Date**	**Date**
Tobacco, amount				
Alcohol, amount				
Substance use				
Domestic violence				
Depression screening				

Clients should be educated about any behavior modifications that can reduce their risk factors for health problems. The practitioner should note the date as well as the type of counseling given to a client.

Client Education				
Behavior Modification	**Date**	**Date**	**Date**	**Date**
Diet/exercise				
Tobacco/alcohol/vaping				
Injury prevention				
Skin protection				
Hormone replacement therapy				
Sexual practices				
Occupational hazards				
Self-examination: breast/testicular				

MEDICATIONS

A. Evaluating medications for safety is an important part of every healthcare visit for clients at any age. Young and old people are particularly vulnerable to harmful effects of medications. Always check appropriateness of medications and dosage during healthcare maintenance visits. The American Geriatrics Society (AGS) Beers Criteria for Potentially Inappropriate Medication Use in Older Adults (2019) is available on the AGS's website for purchase and for members at geriatricscareonline.org/ProductAbstract/american-geriatrics-society-updated-beers-criteria/CL001.

EXHIBIT 1.3 Adult Health Maintenance Guide

Name _____ DOB _____ Chart # _____

Allergies _____Occupation _____

The following tests should be performed according to the individual client's risk factors, as part of preventive healthcare. The practitioner should fill in the date and result of each test and highlight any remarkable results. This list is not exhaustive and special populations may need additional screenings (www.uspreventiveservicestaskforce.org/BrowseRec/Index/browse-recommendations).

Test	Date	Result	Date	Result	Date	Result	Date	Result
Height								
Weight								
Body mass index (BMI)								
Blood pressure (BP)								
Skin examination								
Oral cavity examination								
EKG								
Thyroid-stimulating hormone (TSH)								
Lipid profile								
Urinalysis								
Rectal examination								
Hemoccult								
Chest x-ray (lung cancer screening)								
Colonoscopy								
Prostate-specific antigen (PSA)								
Testicular examination								
Pelvic examination/Pap smear								
Breast examination								
Mammogram								
Bone mineral density								
Sexually transmitted disease (STD)/HIV								
Additionally, the practitioner should ensure that the client receives other healthcare as needed. Assess the client's adherence to other preventive healthcare examinations.								
Dental examination								
Vision/glaucoma examination								

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CLIENT TEACHING GUIDE

ADOLESCENT NUTRITION

A. Adolescents need a well-balanced diet. However, requirements vary depending on the build and gender of the adolescent.
B. Adolescents go through a growing spurt and require extra nutrients during this time.
  1. Girls have a growth spurt generally between 10 and 14 years of age.
  2. Boys have a growth spurt generally between 12 and 15 years of age.
C. To help prevent obesity, it is important to set a good example.
  1. Limit junk foods.
  2. Limit sugary sodas.
  3. Limit fast food.
  4. Serve regular portions, not "super-sized."
  5. Teens need snacks between meals.
  6. Buy fresh vegetables and fruits for snacking.
  7. Many teens do not get enough vitamins from their regular diet and may need a vitamin supplement.
D. Enhance your diet with foods that are a good source of calcium and vitamin D.
  1. Dairy products are an excellent source of calcium and support the bones, making them healthy and stronger. Strong bones reduce the risk of developing osteoporosis.
  2. Dairy products also provide potassium and maintain and support healthy blood pressure.
  3. Dairy products fortified with vitamin D are also recommended to support bone health.
E. Choosing foods that are lower in saturated fats and cholesterol will also help keep cholesterol levels low and reduce the risk of developing high cholesterol and heart disease.
F. Since body image is important to teens, making good decisions for weight control and participating in daily exercises will help reduce the risk of obesity.

Note: If you are concerned about your child's eating habits, eating too much, "binging," or not eating enough to control their weight, "anorexia," you need to notify our office.

G. A use resource is the U.S. Department of Agriculture Food Pyramid at www.ChooseMyPlate.gov.

SUGGESTED NUMBER OF SERVINGS OF FOOD GROUPS PER DAY	
Food Group	**Number of Servings Per Day**
Milk/dairy	3
Meat	2–3
Fruits	3–4
Vegetables	4–5
Grains (breads and cereal)	9–11

CLIENT TEACHING GUIDE

CHILDHOOD NUTRITION

TODDLERS Appetite often decreases during the toddler years. Parents should monitor their child's nutrition by weekly intake instead of daily intake. Just like adults, children's appetites change, leaving them hungrier at certain times than others.

Toddlers love to be busy. Therefore, if mealtime tends to be a struggle, after the child tells you they are finished with the meal, let the child get up and move around, but continue to offer bites of the meal between the child's activities.

Toddlers also do best with finger foods, which are easy to pick up and eat. Finger-food snacks such as crackers, carrots, and celery are great choices. Snacks between meals are important to children. Fresh fruits and vegetables are excellent snacks. Try to limit the amount of sweets and fats the child consumes. Obesity can be a nutritional concern, especially in the early childhood stages. As a parent, set a good example and eat healthy foods and snacks. Toddlers and children learn by watching and eating the same foods that they see their parents and siblings eat.

FAMILY TEACHING TIPS FOR FEEDING TODDLERS

A. Serve small portions and provide a second serving when the first has been eaten. Just 1 or 2 tablespoons are an adequate serving for the toddler. Too much food on the dish may overwhelm the child.

B. There is no *one* food essential to health. Allow substitution for a disliked food. Food jags, in which toddlers prefer one food for days on end, are common and not harmful. If the child refuses a particular food, such as milk, use appropriate substitutes such as pudding, cheese, yogurt, and cottage cheese. Avoid a battle of wills at mealtime.

C. Toddlers like simply prepared foods, served warm or cool, *not* hot or cold.

D. Provide a social atmosphere at mealtimes; allow the toddler to eat with others in the family. Toddlers learn by imitating the acceptance or rejection of foods by other family members.

E. Toddlers prefer foods they can pick up with their fingers; however, they should be allowed to use spoon or fork when they want to try.

F. Try to plan regular mealtimes with small nutritious snacks planned between meals. Do not attach too much importance to food by urging the child to choose what to eat.

G. Dawdling at mealtime is common with this age group and can be ignored unless it stretches on to unreasonable lengths or becomes a play for power. Mealtime for the toddler should not exceed 20 minutes. Calmly remove food without comment.

H. Do not make desserts a reward for good eating habits. It gives unfair value to the dessert and makes vegetables or other foods seem less desirable.

I. Offer regularly planned nutritious snacks, such as milk, crackers, peanut butter, cheese cubes, and pieces of fruit. Plan snacks midway between meals and at bedtime.

J. Remember that the total amount eaten each day is more important than the amount eaten at a specific meal.

K. Useful resources for parents and children are available at www.ChooseMyPlate.gov. This site provides daily food plans, interactive games, and teaching tools for adults and children regarding nutritional guidelines and recommendations for a healthy lifestyle.

CLIENT TEACHING GUIDE

EXERCISE

You have been evaluated and cleared for an exercise program. Your maximum target heart rate during exercise based on your age and physical fitness is _____ beats per minute.

Your goal is to exercise at least three times a week (nonconsecutive days). Your target heart rate should be sustained for 20 to 30 minutes for maximal cardiovascular effect.

A. Your exercise plan should include four components of activity:

1. Warm-up.
   a. The warm-up phase prepares the body to increase blood flow to the heart and reduces muscle tension. **The warm-up phase should last 10 to 20 minutes** and may include such exercises as head rotations, arm and shoulder circles, waist circles or bends, and side leg raises.
2. Stretching.
   a. Stretching prepares the major muscles for exercise. Slow stretching and holding repetitions help prevent injury. Examples of stretching include sitting hamstring leg stretches and holds, and arm stretches.
3. Aerobic activity.
   a. The aerobic phase of exercise should be continuous. **Your target heart rate should be maintained for 20 to 30 minutes for cardiovascular benefit.** Examples of aerobic activity include brisk walking, running, or swimming.
4. Cooldown phase.
   a. **A cooldown period for 5 to 10 minutes finishes your exercise.** This gradual cooldown allows the body temperature to cool and slowly decreases the heart rate, preventing dizziness, fatigue, and nausea. Examples of cooldown exercise include walking and cooldown stretches.

B. Exercise should be discontinued if the following symptoms develop:

1. Marked increase in shortness of breath (inability to talk while exercising).
2. Chest pain, including left arm and jaw pain.
3. Irregular heartbeat.
4. Nausea or vomiting.
5. Faintness or light-headedness.
6. Injury to muscle or joints (sprains, tears).
7. Prolonged fatigue.
8. Muscle weakness.

Seek immediate medical attention if you experience chest pain. If your shortness of breath or irregular heartbeat does not subside within 1 to 2 minutes of rest, seek help. Return to your healthcare provider for an evaluation before further exercise after you experience any other symptoms.

C. Exercise can be easily incorporated into daily activities in other ways.

1. Use the stairs instead of the elevator.
2. Park away from buildings to add extra walking distance.
3. Use the walking path and carry golf clubs instead of using golf carts.
4. Play outdoor games of catch, kickball, or hopscotch instead of indoor activities.
5. Push-mow your yard instead of riding or hiring others for lawn care.
6. Take an evening walk in your neighborhood or use the local mall for all-weather exercise.
7. Shovel snow from the sidewalk instead of using a snow blower.
8. Sweep the porch patio instead of using a leaf blower.
9. Rake leaves for composting.
10. Rent or buy an exercise video on yoga, tai chi, or aerobics instead of a movie.
11. Turn on your radio and dance.
12. Walk your dog for 20 to 30 minutes at a time.

CLIENT TEACHING GUIDE

INFANT NUTRITION

BREASTFEEDING Breast milk is the best choice for feeding infants. Mothers are encouraged to breastfeed for at least 6 to 12 months. However, if you are unable to breastfeed for this length of time, breastfeeding for the first few weeks is highly beneficial to the newborn. If breastfeeding, you should consult with your practitioner prior to taking any medications.

Advantages of Breastfeeding

A. It allows increased contact with your baby.
B. Breast milk is digested more easily by infants than baby formula.
C. Breast milk causes fewer spit-ups and stomach problems than formula.
D. There is no preparation; it is ready to feed anytime; it is always in the correct temperature.
E. It is inexpensive.
F. Babies who are breastfed have fewer allergies in childhood.
G. Antibodies in the mother's breast milk protect the newborn against infections.
H. It prevents overfeeding. Breastfed babies usually feed "on demand."

General Guidelines for Breastfeeding

A. You should breastfeed your baby when they are hungry. It is recommended that you breastfeed your baby every 2 to 4 hours, which is approximately 8 to 12 times in a 24-hour period, during the first few days of life.
B. Babies may go through a "growth spurt" on day 3 or 4 after birth. Your baby may want to feed more frequently, every 1 to 2 hours during growth spurts.
C. After the baby is 1 to 2 weeks old, they will develop a routine pattern of eating every 2 to 4 hours during waking hours and possibly every 4 to 5 hours at nighttime.
D. The length of time feeding your baby at each feeding should last until the baby is full. Signs of fullness from your baby may include turning away from the breast, no longer feeding, or falling asleep.
E. It is not recommended to feed your baby water or formula in addition to breastfeeding. Some mothers may choose to occasionally add a supplement with formula. A soy-based formula is usually tolerated best by the baby.
F. The diet of a breastfeeding mother requires increased nutrition: 500 kilocalories above the normal diet and increased fluids are recommended.
    1. The mother's diet should exclude caffeine, chocolate, cabbage, beans, and other gas-forming foods. Alcohol and tobacco should also be avoided.
G. Consider fluoride supplement
    1. When your child is fed solely breast milk, you should consider **adding** vitamin and fluoride supplements.
    2. Fluoride supplementation may also be needed for babies who live in an area where the water is low in fluoride.
    3. Fluoride is important for prevention of dental caries.
    4. Even though your baby does not have any teeth, they still need fluoride for building the developing teeth.
    5. Consult with your practitioner regarding this supplementation.
H. All medications and supplements should be avoided by the mother when breastfeeding. If these medications are necessary, please check with your healthcare provider to make sure the medication or supplement is safe while breastfeeding.

BOTTLE FEEDING If breastfeeding is not an option, nutritional formulas are available. Ask your practitioner which is best suited for your baby.

A. It is best to have 6 to 8 bottles and 6 to 10 nipples prepared.
B. Formula may be purchased in powder, concentrate, or ready-to-feed forms.
C. Please read the can and be aware of the proper mixing method for each type of formula.
D. When feeding your baby, make sure the nipple is full of milk to avoid getting excess air in the baby's stomach.
E. You should never prop bottles on blankets or other objects when feeding your baby.

ROUTINE SCHEDULE OF FEEDING A NEWBORN

A. Give a newborn baby 1 to 2 oz of formula every 3 to 4 hours.
B. Increase formula by 1 oz as tolerated by the baby.
C. Give similar amounts at each feeding. The approximate total amount of formula your baby should take per day is determined by their weight (see table).

(*continued*)

INFANT NUTRITION (*CONTINUED*)

D. If your baby seems dissatisfied with feedings, you may add 1/2 to 1 more ounce of formula. Be careful not to add more than this at a time because overfeeding may cause "bellyache" or diarrhea.
E. By 4 months of age, babies usually take 32 oz of formula per day. At this time, solid foods (e.g., baby cereal) are introduced.

SOLIDS

A. Solid foods are generally introduced to the baby at approximately 4 months.
  1. You may introduce new solid baby food every 3 to 5 days as tolerated by your baby.
  2. It is necessary to use this 3- to 5-day span between foods in case your baby is allergic or does not tolerate a specific food.
  3. If you have waited after trying a new food, you will be able to determine which food your baby was not able to tolerate.
B. Begin with rice infant cereal mixed with breast milk or formula.
C. Begin with one tablespoon. You may increase the amount to two to five tablespoons one to two times a day as tolerated by the baby.
D. Next, introduce fruits followed later by vegetables, increasing the amount as tolerated.
  1. If your baby does not like one vegetable, wait a few weeks to try to introduce it again.
  2. Some babies may be very finicky regarding the texture of solid food. Do not give up! One day the baby may accept the foods they used to spit out due to taste or texture.
E. Meats are usually the last food introduced and many babies do not like the texture; however, you should continue to offer them.
F. Juices are usually introduced last, at approximately 6 months.

COW'S MILK

A. It is not recommended to feed cow's milk to a baby during the first year of life.
B. Cow's milk may be introduced after your baby turns 1 year old.

HONEY

A. Honey is not recommended during a baby's first year of life due to the risk of infant botulism.

NUTRITIONAL INFORMATION

A. Beechnut Nutrition: 800-BEECH NUT or 1-800-233-2468 or www.beechnut.com.
B. La Leche League Helpline: 800-LALECHE or 1-800-525-3243 or www.llli.org.

TOTAL FORMULA NEEDS PER INFANT WEIGHT

Infant Weight (Pounds)	Total Infant Formula Per Day (Ounces Per Day in Divided Feedings)
7	19
8	21
9	24
10	27
11	30

CHAPTER 2

PUBLIC HEALTH GUIDELINES

Doncy J. Eapen and Jill C. Cash

HOMELESSNESS

OVERVIEW

A. Homelessness is a multifaceted structural problem that has a syndemic effect on people. The term *syndemic* refers to situations in which the net effect of multiple physical and social comorbidities is worse than the sum of the individual effects (Singer, 2009). There is no specific time limit on homelessness. Due to the extremely limited incomes of most families, experiencing homelessness can sometimes last an extended period of time. In the case of people experiencing homelessness, consider all of the possible interactions among unmanaged chronic diseases (type 2 diabetes, hypertension, hyperlipidemia), multiple caries and gingival abscesses, chronic soft tissue infections, and untreated depression and anxiety. For people without the support of stable housing and nutrition, these interactions can be overwhelming. Data show that, on average, people who are chronically homeless live approximately 20 years less than their housed peers.

DEFINITION (FEDERAL)

A. The U.S. Department of Housing and Urban Development (HUD) is responsible for defining the criteria by which an individual's housing status is assessed. The required criteria for determination of homelessness include the following (HUD, 2012):

1. People who are living in a place not meant for human habitation, in emergency shelters, in transitional housing, or are exiting an institution where they temporarily resided if they were in shelter or a place not meant for human habitation before entering the institution. People will be considered homeless if they are exiting an institution where they resided for up to 90 days and were homeless immediately prior to entering that institution.

2. People who are losing their primary nighttime residence, which may include a motel or hotel or a doubled-up situation, within 14 days and lack the resources or support networks to remain in housing.

3. Families with children or unaccompanied youth who are unstably housed and likely to continue in that state. This is a new category of homelessness and it applies to families with children or unaccompanied youth (up to the age of 24) who have not had a lease or ownership interest in a housing unit in the past 60 days or more, who have had two or more moves in the past 60 days, and who are likely to continue to be unstably housed due to disability or multiple barriers to employment.

4. People who are fleeing or attempting to flee domestic violence, dating violence, sexual assault, stalking, or other dangerous or life-threatening situations related to violence; have no other residence; and lack the resources or support networks to obtain other permanent housing.

INCIDENCE

A. Statistics from the U.S. Department of HUD Office of Community Planning and Development's 2020 Annual Homeless Assessment Report to Congress Point-in-Times (PITs) estimates offer a snapshot of homelessness—both sheltered and unsheltered—on a single night. The one-night counts are conducted during the last 10 days of January each year.

1. On a single night in 2018, roughly 580,000 people were experiencing homelessness in the United States.

a. About 61% were staying in sheltered locations—emergency shelters or transitional housing programs; about 39% were in unsheltered locations, such as on the street, in abandoned buildings, or in other places not suitable for human habitation.

b. About 34,000 people were experiencing homelessness as unaccompanied youth—that is, people under the age of 25 experiencing homelessness on their own. Most unaccompanied youth (90%) were between the ages of 18 and 24.

c. More than two-thirds of people experiencing homelessness (70%) were adults in households without children. The remaining 30% of people experiencing homelessness did so as part of a family.

d. Six in 10 people experiencing homelessness as individuals identified as male, 39% were female, and the remaining 1% were transgender or gender nonconforming.

B. In the United States, relates the Interagency Council on Homelessness in its report Homelessness in America: Focus on Chronic Homelessness Among People With Disabilities (2018), more than two-thirds (69%) of individuals with disabilities who experience chronic homelessness were staying in unsheltered locations, such as on sidewalks or in doorways, parks or encampments, under bridges, in cars and buses, or abandoned buildings, rather than in emergency shelters, at the time of the January PIT count.

PATHOGENESIS

A. Homelessness is a catastrophic experience at the individual and family level. However, most of the factors that contribute to homelessness are structural in nature and are ▶

The contributions of Cheryl A. Glass, Moya Cook, Karen Kress, Robertson Nash, and Bunny Pounds to this chapter in prior editions are acknowledged here.

beyond the control of any one client or provider. For example, cities with an inadequate supply of Section 8 housing will not be able to provide people experiencing homelessness with a place to live. Furthermore, the disparity between federal and state minimum wages and the living wage translates to people who work 40 hours or more per week not being able to secure housing due to the number of hours working.

PREDISPOSING FACTORS

A. Chronic illnesses: People who experience homelessness suffer from chronic illnesses at rates that exceed those in the general population. In many cases, overlapping and negatively interacting manifestations of illness exacerbate each other, leading to several complicated comorbidities whose management may tax the resources available to both the client and the provider.

COMMON COMPLAINTS

A. Refer to chapter-specific conditions, complaints, and treatments.

B. Chronic illnesses:
1. Hypertension.
2. Diabetes.
3. Coronary artery disease.
4. Congestive heart failure.
5. Peripheral vascular disease.
6. Hypercholesterolemia.

C. Respiratory:
1. Bronchitis.
2. Pneumonia.
3. Tuberculosis.
4. Influenza.
5. Asthma.
6. Chronic obstructive pulmonary disease (COPD).
7. Cough.

D. Infections:
1. COVID-19: Infections with severe acute respiratory syndrome coronavirus may spread easily during the global pandemic.
2. HIV/AIDS.
3. Sexually transmitted infections.
4. Hepatitis A, B, and C.
5. Wound and skin infections.
6. Tetanus.

E. Dental abscesses, gingivitis, and tooth loss.

F. Problems being outdoors:
1. Sleep deprivation.
2. Animal bites.
3. Food insecurity/poor nutrition.
4. Dehydration.

G. Weather-related illnesses:
1. Heat-related illnesses:
   a. Cramps.
   b. Heat exhaustion.
   c. Heat stroke.
2. Cold-related illnesses:
   a. Frostbite.
   b. Hypothermia.

H. Skin and foot problems:
1. Lice.
2. Scabies.
3. Abrasions, abscesses, corn calluses, onychomycosis, and tinea pedis.
4. Ulcerations and cellulitis from edema and venous stasis.
5. Immersion foot.

I. Mental health-related complaints:
1. Physical violence/sexual abuse.
2. Anger.
3. Major depression.
4. Schizophrenia.
5. Bipolar disorders.
6. Posttraumatic stress.
7. Suicide.
8. Substance abuse problems:
   a. Opioid-related overdose and death.
   b. Alcoholism.

J. Cognitive and functional impairment.

K. Traumatic brain injury.

L. Unintended pregnancies.

M. Children-related issues:
1. Lead poisoning.
2. Behavioral problems (e.g., anxiety, depression, withdrawal, aggression, and hostility).
3. Delayed development.
4. Growth delays.
5. Learning disabilities.
6. Separation from family.

OTHER SIGNS AND SYMPTOMS

A. Does the client smell of smoke, as if they have been sleeping outdoors by a fire? If so, this would trigger a chest x-ray and detailed pulmonary examination.

B. Does the client smell of urine, suggesting a possible urinary tract infection? If so, this would trigger a genitourinary skin examination, urinalysis, and social work consult regarding access to clean clothing.

C. Unilateral lower extremity pitting edema, pain, and tenderness suggest the presence of a deep vein thrombosis (DVT), which is considered a medical emergency.

D. Bilateral lower extremity pitting edema may be a sign of heart failure. This finding would trigger a thorough clinical examination for the following: S3 and S4 heart sounds, jugular venous pulse, and jugular venous distension.

E. Brawny edema and venous stasis ulcerations would trigger a thorough peripheral vascular examination and a sensory examination of the plantar surfaces of both feet.

F. Itchiness suggests pest infestation, and needs treatment, shower, washcloth, and new clothes. Contact the shelter to treat the environment.

G. Unusual behavior, for example, hallucination, visible depression, intoxication, and so on, needs referral to mental health.

SUBJECTIVE DATA

A. Factors to consider when evaluating people experiencing homelessness:
1. Where did the client sleep last? Does the client have a safe place to sleep tonight?
2. When was the last time the client had a place that they considered their own home?
3. When was the last time the client was able to bathe?
4. When was the last time the client ate?
5. Is the client able to find bathrooms when needed?
6. Are symptoms of depression and anxiety interfering with survival?
7. Is the client being physically, sexually, or emotionally abused?
8. Is the client being forced to engage in behaviors against their will in exchange for food and shelter?

9. Does the client have a safe way to manage medications on the street, such as insulin or inhalers?
10. Assess/discuss current substance abuse.
    a. Refer to "Substance Use Disorders" section in this chapter.

B. *See Client Teaching Guide for Chapter 22, "Psychiatric Guidelines."*

PHYSICAL EXAMINATION

A. Providers should be aware that, due to past trauma, many people experiencing homelessness are reluctant to touch. Take your time with the physical examination, ask permission for each step of the physical examination, and explain what you are doing and why.

1. Check temperature (as indicated), pulse, respirations, blood pressure, and height and weight to calculate body mass index.
2. Inspect:
    a. Inspect the scalp: Assess for nits.
    b. Inspect the oral cavity: Assess for caries or active oral abscesses.
    c. Assess the skin for burns, abrasions, trauma, and evidence of accidental or intentional injury. Visualize both feet for infection and trauma.
3. Palpate:
    a. Palpate the abdomen for tenderness or masses.
    b. Perform pelvic examination as appropriate. This may not be possible on the first examination. For some females, intentionally poor hygiene is viewed as protection against male assault.
4. Auscultate:
    a. Heart.
    b. Lungs.
    c. Abdomen.
5. Perform neurologic examination:
    a. Assess for neuropathy in the feet.
    b. Assess hearing and vision as these faculties are central to survival when living on the street.
6. Perform mental health examination:
    a. Perform depression/anxiety screening. See depression/anxiety in Chapter 22, "Psychiatric Guidelines, for screening."
    b. Evaluate suicidal ideation. See Chapter 22, "Psychiatric Guidelines, for assessment/screening."
    c. Assess for active audio/visual hallucinations.
    d. Assess for paranoia.

DIAGNOSTIC TESTS

A. Complete blood count (CBC).
B. Comprehensive metabolic panel (CMP).
C. B_{12}/folate.
D. Urine: urinalysis for protein/glucose and *Neisseria gonorrhoeae*/chlamydia.
E. Rapid plasma reagin (RPR).
F. HIV.
G. Hepatitis A virus (HAV)/Hepatitis B virus (HBV) profile and hepatitis C virus antibody.
H. Glycosylated hemoglobin A1c.
I. Purified protein derivative (PPD)/T-SPOT.

DIFFERENTIAL DIAGNOSES

A. Substance use/abuse.
B. Depression.
C. Malnutrition.
D. Schizophrenia.

PLAN

A. General interventions:

1. There are no disease-based standards of care that specifically address people who are experiencing homelessness. Rather, providers must be creative and resourceful, working with clients toward higher levels of self-efficacy within the resource bounds imposed on the situation by society at large.
2. Community-based care: No single provider or ancillary service organization (ASO) can provide all of the care needed by people experiencing homelessness. In order to maximize care, providers should make an effort to identify and be in communication with their local ASOs before a crisis so that resources can be coordinated and maximized when acute issues arise.
3. Identifying and assisting the client with current health needs is imperative. In addition to homelessness, the client may have other acute and chronic health conditions that should be addressed and treated as appropriate.
4. Immunize according to standard guidelines for flu, pneumonia, hepatitis A and B, tetanus, and so forth.
5. Safety plan: For suspected violence or abuse, mandatory reporting and referral to social services are recommended.
6. Housing: Refer to social services for shelter placement, medical respite care, or permanent housing.

B. Client teaching:

1. Lifestyle modifications, focusing on diet, exercise, and smoking cessation, form the cornerstone of APRN client teaching for chronic disease management. The following principles should be used to guide the teaching of these principles in the homeless population:
    a. People experiencing homelessness rarely have access to exercise facilities. In addition, they often lack a safe place to store their belongings while they exercise.
    b. People experiencing homelessness have little to no control over their food selection. Dependence on volunteer-driven, charity-led food banks and meal programs is a significant impediment to healthy eating as many of these programs assume that a high-carbohydrate, calorie-dense meal, such as spaghetti and bread, is what people experiencing homelessness like and want to eat.
    c. The prevalence of poor dentition among the homeless greatly exceeds that of the stably housed, employed population. Accordingly, people experiencing homelessness may not be able to eat fresh fruits and vegetables.
    d. The rates of substance abuse among the chronically homeless exceed those in the general population. Some people may be successfully clean and sober from alcohol yet continue to smoke tobacco. Although this situation is not ideal, focus on client strengths, praise sobriety, and acknowledge that smoking cessation is perceived as being more difficult than sobriety from alcohol and may need to have a lower priority in a client's overall plan of care.
    e. Blanket dietary and exercise recommendations developed around stably housed, fully employed ▶

people will likely not translate well to people experiencing homelessness. Failure to account for the unique challenges of people experiencing homelessness will exacerbate feelings of depression, low self-worth, and decreased self-efficacy.

f. Caring for individuals experiencing homelessness requires a team approach. Successful teams include clinicians, social workers, behavioral health providers, psychiatric providers, and nursing staff. No one provider or discipline can address all of the needs of people experiencing homelessness. It is critical that the care team work well together and prioritize the work of building rapport with the client, whose life experiences have likely reinforced their distrust of the systems that we all depend on to deliver care.

FOLLOW-UP

A. One of the primary challenges facing providers of those experiencing homelessness is the deep-seated lack of trust that homeless people have in the healthcare system within which most providers operate. In order to encourage people to return to the clinic for appropriate follow-up care, every effort must be made during the first visit to establish a true therapeutic relationship with the client. Providers should attempt to work with clients to identify and address concerns that are important to the client. Providers should remember that topics such as smoking cessation and sobriety from alcohol may best be deferred during an initial visit. All clinic staff should be trained to treat all clients with a professional, welcoming, and empathetic manner.

CONSULTATION/REFERRAL

A. Referring clients to specialists is an everyday part of primary care, and advanced practice nurses serve important screening and gatekeeper functions in this role. However, the insurance-based system that we rely on for care is not available to most people experiencing homelessness as they lack health insurance. Should insurance be available, then providers must still identify specialists willing to take specific insurances and work with people experiencing homelessness. Effective providers will identify specialists in their local communities and seek to build relationships that will facilitate referrals. Given the lack of access to transportation in this population, it is important to set an expectation that a missed appointment does not mean that the client does not want or need care and that specialists may need to be flexible regarding missed appointments with people in this population.

INDIVIDUAL CONSIDERATIONS

A. Pediatrics/Minors:

1. The National Runaway Safeline estimates that on any given night there are approximately 1.3 million homeless youth living unsupervised on the streets, in abandoned buildings, with friends (couch surfing), or with strangers. Homeless youth are at a higher risk of physical abuse, sexual exploitation, mental health disabilities, substance abuse, and death. It is estimated that 5,000 unaccompanied youth die each year as a result of assault, illness, or suicide.

2. The National Alliance to End Homelessness (2019) notes youth homelessness is often rooted in family conflict. Other contributing factors include economic circumstances such as poverty and housing insecurity, racial disparities, and mental health and substance use disorders (SUDs). Young people who have had involvement with child welfare and juvenile justice systems are also more likely to become homeless. Many homeless youth and young adults have experienced significant trauma before and after becoming homeless and are particularly vulnerable to sexual trafficking and exploitation. Youth who identify as LGBTQ, pregnant and parenting youth, youth with special needs or disabilities, and youth of color, particularly African American and Native American youth, are also more likely to become homeless.

3. Homeless children and youth report that school is a home to them—a place they see the same faces, sit in the same seat, and receive meals.

4. A lot of young people do not seek out services because of fear that they will be turned into the child welfare or juvenile justice system or refused services. The more information they have about what they can directly access, the more likely they are going to seek the services again. Providers should make contact with their community YMCA/YWCA resources to develop a referral plan should a homeless minor present for care.

B. Pregnancy:

1. All pregnant individuals who are experiencing homelessness and present for care should be seen by a social worker before leaving the site. In cases where abuse is suspected, law enforcement must be notified.

C. Older adults:

1. All people older than 60 years of age who are experiencing homelessness and present for care should be seen by a social worker before leaving the site. In cases where abuse is suspected, law enforcement must be notified.

RESOURCES

A. Federal.

HUD Exchange: Homelessness Assistance: www.hudexchange.info

National Coalition for the Homeless: www.nationalhomeless.org

National Health Care for the Homeless Council: www.nhchc.org

National Conference of State Legislatures: www.ncsl.org

U.S. Interagency Council on Homelessness: www.usich.gov/

B. State.

1. Providers should use the internet search engine of choice to locate emergency shelters and care for people experiencing homelessness in their locale. There is no centralized database of state/local shelters. Many larger shelters will have a list of local places for people to find food and community assistance, and this information can be invaluable for providers to keep on hand.

Homeless Shelter Directory: www.homelessshelterdirectory.org/

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CERVICAL EVALUATION DURING PREGNANCY: BIMANUAL EXAMINATION

DESCRIPTION

A. The bimanual examination is a digital evaluation of the cervix using the index and middle fingers of the examiner's hand.

INDICATIONS

A. To assess cervical dilation, effacement, presentation of the fetus, and position and station of fetal presenting part.

B. The cervix may be assigned a Bishop score to evaluate cervical change and to determine difficulty/ease with induction of labor. There is an inherent subjective difference among examiners; however, the Bishop score can be used to evaluate preterm labor cervical changes over time (see Table II.1).

PRECAUTIONS

A. Bimanual examination should never be performed when there is suspicion of or history of documented placenta previa. Vaginal bleeding in second or third trimester of pregnancy should be treated as placenta previa until this is ruled out.

B. Suspicion of ruptured membranes with preterm contractions: First perform sterile speculum examination to assess for rupture. Then, if membranes are intact, proceed with bimanual examination.

C. If membranes are ruptured in the absence of active labor, avoid bimanual examination until frequent, painful uterine contractions are present.

EQUIPMENT REQUIRED

A. Gloves (nonsterile if membranes are intact; sterile if suspicion of or documented ruptured membranes).

B. Water-soluble lubricant (sterile lubricant required if membranes are ruptured).

C. Examination table or bed.

PROCEDURE

A. Stand at the foot of the examination table or sit near the foot of the bed and face the client.

TABLE II.1 BISHOP SCORING

Score	0	1	2	3
Dilation	0	1–2	3–4	5–6
Percentage effacement	0%–30%	40%–50%	60%–70%	80% or more
Station	–3	–2	–1 to 0	+1 to +2
Consistency	Firm	Medium	Soft	–
Position	Posterior	Mid	Anterior	–

Total score: 0 to 5 = difficult induction; ≥6 = easy induction.

B. Place the client in the lithotomy position, or have the client draw their knees up and allow the knees to drop to opposite sides.

C. Suggest relaxation techniques to reduce discomfort. If the client is in active labor, the cervix will be tender.

D. Place lubricant on the index and middle fingers of the examining hand.

E. Inform the client of each step before performance. Touch inner thigh first, then touch posterior portion of introitus and introduce gloved fingers into the vagina. Encourage the client to relax pelvic muscles (a deep breath will often encourage relaxation).

F. Palpate the cervix and the lower uterine segment, evaluating (see Figure II.2):

1. Dilatation.
2. Effacement.
3. Station.
4. Consistency (softness).
5. Anterior versus midposition versus posterior placement of the cervix.

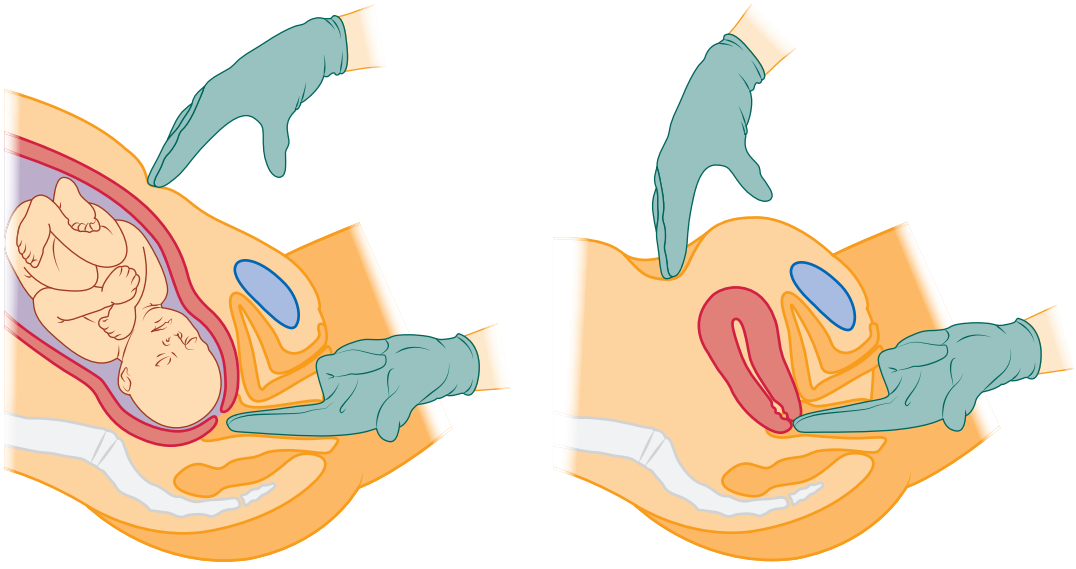

FIGURE II.2 Bimanual examination.

PAP SMEAR AND MATURATION INDEX PROCEDURE

DESCRIPTION

A. A Pap smear is a cytologic *screen* that is performed to detect the presence of cancerous and precancerous lesions of the uterine cervix. The procedure involves procuring a sample of both the ectocervix and endocervix. The maturation index (endocrine assessment) is a tool to evaluate decreased estrogenization of the vagina. Both liquid-based and conventional methods for collecting cervical cytology are acceptable.

INDICATIONS

A. Human papillomavirus (HPV) increases the risk of cancer, including cervical, vulvar, vaginal, penile, and anal cancer, as well as cancer of the oropharynx. Since cervical cancer is believed to be caused by sexually transmissible HPV infections, females who have not had sexual exposures are likely at low risk. Females aged older than 21 years who have not engaged in sexual intercourse may not need a Pap test depending on circumstances. The decision should be made at the discretion of the client and their physician. Females who have had sex with females are still at risk of cervical cancer.

B. Persistent infection of the uterine cervix with high-risk types of human papillomavirus (hrHPV) is required for the development of invasive cervical cancer. Infection with hrHPV is common, especially with sexually active young females; most infections are transient and spontaneously clear without clear clinical consequences. The American Cancer Society, the American Society for Colposcopy and Cervical Pathology, and the American Society for Clinical Pathology clinical guidelines recommend screening strategies with cytology or cotesting (cytology in combination with hrHPV) by age-specific guideline. The American College of Obstetricians and Gynecologists (ACOG) recommends screening for females ages 21 to 65 with cytology alone, and HPV cotesting by age-specific guideline. The 2018 U.S. Preventive Services Task Force (USPSTF) recommendation statement for cervical cancer for females ages 21 to 65 years recommends screening for cervical cancer with cervical cytology alone and hrHPV testing alone dependent on the client's age. See Table II.3 for cervical cancer screening recommendations for average-risk females. Females who are infected with HIV, who are otherwise immunocompromised (e.g., solid organ transplants), females previously treated for cervical intraepithelial neoplasia 2 (CIN2) or cervical intraepithelial neoplasia 3 (CIN3) or cancer, and females exposed to diethylstilbestrol (DES) before birth need more frequent screening.

TABLE II.3 CERVICAL CANCER SCREENING GUIDELINES FOR *AVERAGE-RISK* FEMALES

	Recommending Body		
	ACS, ASCCP, and ASCP 2012 Guidelines	**USPSTF 2018 Guidelines**	**ACOG 2016**
Statement about annual screening	Females of any age should not be screened annually by any screening method.	Cervical cancer screening visits are an opportunity to discuss other health problems and preventive measures.	Clients should be counseled that annual well-woman visits are recommended even if bimanual pelvic exam with cervical cancer screening is not performed at each visit. The components of the examination may vary depending on the client's age, risk factors, and physician preference. The visit is valuable in promoting prevention practices, recognizing risk factor for disease, identifying medical problems, administering immunizations based on age and risk factors, and establishing clinician–client relationship.
Females aged <21 years	No screening is recommended, regardless of age of sexual initiation or other risk factors.	No screening is recommended for females <21.	No screening is recommended for females <21, regardless of age of sexual initiation and other behavior-related risk factors.
Females aged 21–29 years • Cytology (conventional or liquid based) alone **OR** • HPV cotest (cytology and HPV test administered together)	Cervical cytology every 3 years is recommended. HPV cotesting should not be used in females <30.	Cervical cytology alone **every 3 years** is recommended.	Cervical cytology **every 3 years** is recommended. Liquid-based and conventional methods of cervical cytology collection are acceptable for screening. HPV cotesting is not recommended in females <30 years.
Females aged 30–65 years • Cytology (conventional or liquid-based) alone **OR** • hrHPV cotest (cytology and HPV test administered together)	Pap test and hrHPV cotesting is recommended **every 5 years.**	Cervical cytology alone **every 3 years** is recommended, **OR alternatively** hrHPV testing alone every 5 years. For females aged 30–65, cotesting is no long recommended.	Cervical cytology test alone **every 3 years** is acceptable. Pap test + hrHPV cotesting every 5 years is recommended ***(preferred over cytology alone every 3 years).***

(*continued*)

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