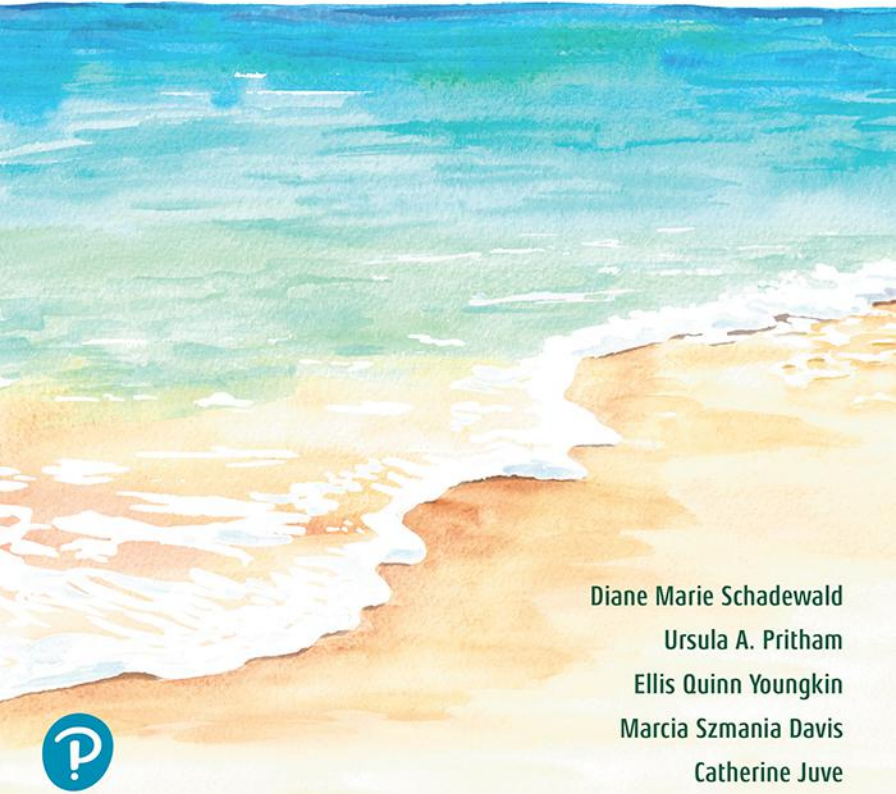
Women's Health

A Primary Care Clinical Guide

FIFTH EDITION



Diane Marie Schadewald
Ursula A. Pritham
Ellis Quinn Youngkin
Marcia Szmania Davis
Catherine Juve

Women's Health

A Primary Care Clinical Guide

This page is intentionally left blank

Women's Health

A Primary Care Clinical Guide

Fifth Edition

Diane Marie Schadewald, DNP, MSN, RN WHNP-BC, FNP-BC
Clinical Associate Professor
College of Nursing, University of Wisconsin-Milwaukee
Milwaukee, Wisconsin

Ursula A. Pritham, PhD, WHNP-BC, FNP-BC, SANE
Past Associate Professor and Graduate Program Director
School of Nursing, Georgia Southern University,
Statesboro, Georgia

Ellis Quinn Youngkin, PhD, WHNP, ARNP
Former Retired Professor and Associate Dean
Christine E. Lynn College of Nursing, Florida Atlantic University
Boca Raton, Florida
Faculty Emeritus
School of Nursing, Virginia Commonwealth University
Richmond, Virginia

Marcia Szmania Davis, MS, MS ED RNC, WHNP-BC, ANP-BC
Clinical Adjunct Faculty
John Tyler Community College
Richmond, VA

Catherine Juve, PhD, MSPH, WHNP
Clinical Associate Professor, retired
School of Nursing, University of Minnesota
Minneapolis, Minnesota

SVP, Product Management: Adam Jaworski
Director Product Management - Health Sciences: Katrin Beacom
Content Manager - Health Professions & Nursing: Kevin Wilson
Portfolio Management Assistant: Erin Sullivan
Associate Sponsoring Editor: Zoya Zaman
Product Marketing Manager: Christopher Barry
Field Marketing Manager: Brittany Hammond
Vice President, Digital Studio and Content Production: Paul DeLuca
Director, Digital Studio and Content Production: Brian Hyland
Managing Producer: Jennifer Sargunar
Content Producer (Team Lead): Faraz Sharique Ali
Content Producer: Neha Sharma
Project Manager, Global R&P: Anjali Singh
DGM, Global R&P: Tanvi Bhatia
Operations Specialist: Maura Zaldivar-Garcia
Cover Design: SPi Global
Cover Photo: Daria Ustiugova/Shutterstock
Full-Service Project Management and Composition: Ashwina Ragounath, Integra Software Services Pvt. Ltd.
Printer/Binder: LSC Communications
Cover Printer: LSC Communications
Text Font: Garamond LT Std

Library of Congress Cataloging-in-Publication Data

Names: Schadewald, Diane Marie, editor | Pritham, Ursula A., editor.
Title: Women's health : a primary care clinical guide / [edited by] Diane Marie Schadewald, DNP, MSN, RN, WHNP-BC, FNP-BC, Clinical Associate Professor, University of Wisconsin-Milwaukee, Milwaukee, WI, Ursula A. Pritham, Past Associate Professor and Graduate Program Director, Georgia Southern University, Statesboro, Georgia
Description: Fifth edition. | Hoboken, New Jersey: Pearson, [2020] | Includes index.
Identifiers: LCCN 2019013811 | ISBN 9780135659663 | ISBN 0135659663
Subjects: LCSH: Women—Health and hygiene—Sociological aspects. | Women—Diseases. | Women's health services. | Gynecology. | Obstetrics.
Classification: LCC RA564.85 .W6668 2019 | DDC 613/.04244—dc23
LC record available at https://lccn.loc.gov/2019013811

ScoutAutomatedPrintCode

ISBN-10: 0-13-565966-3
ISBN-13: 978-0-13-565966-3

Dedication

Image printed with permission of Dr Kathleen J. Sawin

Ellis Quinn Youngkin, PhD, RNC, WHNP, ARNP 1939–2018

We dedicate this text to Ellis Quinn Youngkin for her contributions to the development of nurse practitioners Ellis passed away in January of 2018. We remember her as a dear friend, mentor, and wonderful colleague. We like to think the painting on the previous page by Ellis depicts the path she saw for all of us.

I (Schadewald) met Ellis in 1992 when she was faculty at Virginia Commonwealth University (VCU). Ellis graciously offered to mentor me. Due to family needs and other life events I didn't reach out to Ellis again until late 2009 when I contacted her to inquire when a new edition of her and Marcia Davis's *Women's Health* textbook would be available. This contact restarted our relationship and Ellis served as a mentor to me in the development of the fourth edition of this textbook. Her wisdom and guidance were greatly appreciated and invaluable. Ursula and I asked Marcia Davis and Kathleen Sawin, both colleagues of Ellis's from her days at Virginia Commonwealth University, to write the following dedication to Ellis as they knew her longer than I or Ursula.

Diane Marie Schadewald and Ursula A. Pritham

Born in 1939 in Durham, NC, Dr. Youngkin was a graduate of Duke University (BSN), the University of Maryland (MS), the Medical College of Virginia at VCU (Nurse Practitioner), and Old Dominion University (ODU) (PhD). A practitioner, educator, motivator, innovator, author, investigator, advocate, volunteer, administrator, artist, romance novel writer, friend, humorist, lover of adventures, and for most of her career a Women's Health Nurse Practitioner. But foremost, a wife, mother, daughter, grandmother, and lover of all family members and friends. That was Ellis Youngkin, the initial first author of this book, who left us all too soon. We knew Ellis through her many roles. She loved practicing as an Obstetrics and Gynecology (OBS-GYN) nurse practitioner for over 40 years. As an educator and co-director of several nurse practitioner programs both at VCU and ODU she had the highest standards for her students, but she was invested in creative ways to help them achieve those goals. Ellis was often heard to say that she was committed to serving women and wanted her students to give them the best care. She found joy in teaching and mentoring hundreds of Women's Health and Family Nurse Practitioners students, and they held her in the highest regard. She was an innovative educator, exemplified when she partnered with me (Sawin) to lead the development of the Weekend Family Nurse Practitioner Program at The School of Nursing, VCU. The program received federal funding to recruit nurses from rural communities in Virginia to travel to Richmond on weekends for classes, but stay in their communities for clinical rotations and practice upon graduation, thus enhancing the quality of health care in rural Virginia. An innovative author, she partnered with me (Davis) to develop the first edition of this text, integrating evidence needed to care for women of all ages, including women with a disability. She led the editing team of Drs. Kissinger, Sawin, and Israel in developing an innovative approach to pharmacotherapeutics for primary care in another text by organizing the content the way nurses and nurse practitioners "think," starting with the problem or diagnosis. In addition to these two groundbreaking texts, Dr. Youngkin authored numerous peer-reviewed articles in a wide variety of journals; sharing both her clinical knowledge and results from her work as a researcher. She had many honors including selection as a fellow to the prestigious American Academy of Nurse Practitioners and funding from the American Nurses Foundation. Ellis had a major impact on health care through her work with professional communities especially the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN), for example serving on the editorial board of Lifelines (now Nursing for Women's Health), AWHONN's clinical practice journal. She also was ever-present in the community, whether practicing at student health, planned parenthood, a prenatal clinic, community clinic, or as a sexual assault nurse examiner. Ellis was equally effective presenting to national audiences or to high school students and had a special way of connecting to all audiences. She was an artist and even wrote, but never published, romance novels. She enjoyed showing her paintings at Arts in the Park in Richmond Virginia, and in the Villages in Florida where she lived. She was delighted that one of her most favorite paintings titled "Hope" hung in a nearby cancer center and was published in the *Journal of Arts and Aesthetics in Nursing and Healthcare* (2016, 3(2), 20–21). She saw friends as gifts in her life, dedication to friends permeated her being, and we were fortunate to have her in our lives. Ellis was a faculty member at VCU School of Nursing for 25 years, ODU for 5 years and and her last academic home, Florida Atlantic University (FAU), for 10 years. She was the Associate Dean at FAU School of Nursing at the time of her retirement in 2007. Ellis retired in 2007 to a life full of painting, writing, and prized time with her family. She was devoted to her family. She and her beloved husband Yunk, married for 58 years, were parents of two children and she was "Noni" to seven grandchildren. In retirement, Ellis painted prolifically—her paintings depict hope, joy, and journeys.

Kathleen J. Sawin and Marcia Szmania Davis

Contents

Preface

New to This Edition

1. Learning objectives for each chapter.
2. Chapter 26 *Substance Use Disorders in Women*.
3. Appendix B *Elective Termination of Pregnancy*.
4. Chapter 8 has information on care for transgender populations.
5. Chapter 10 has expanded information on complementary therapies.
6. Chapter 15 has information about HIV prevention with use of PrEP.

In addition each chapter has been updated to include current recommendations for diagnosing and providing care for women.

Editors' Notes

Many women, by choice or by necessity, will seek out the women's health care provider as their source of primary care. This fifth edition of *Women's Health: A Primary Care Clinical Guide* is designed to help meet the needs of providers who offer women more than basic reproductive health care. It covers the traditional reproductive and gynecologic content as well as selected common medical, psychosocial, developmental, and political problems, issues, and needs.

Part I, Women, Health, and the Health Care System, begins with a new chapter on the major historical and contemporary changes impacting women, focusing on the important societal, economic, and political factors that affect women's well-being. Chapter 2 discusses women's development into the 21st century with some basic information on the #MeToo movement included in the chapter, followed by Chapter 3, the epidemiology and diagnostic test and procedures chapter. Chapter 4 deals with adolescent health issues. Chapter 5 includes general guidelines for health care screening, and interventions for adult women. Chapter 6 is the chapter on older women's health.

Part II, Promotion of Wellness for Women, includes Chapter 7 on sexuality, Chapter 8 on the health needs of lesbians, bisexual, and transgender populations, Chapter 9 on health needs of women with disabilities, and Chapter 10 on complementary therapies in women's health.

Part III, Promotion of Gynecologic Health Care, delves into the more traditional health problems and needs of women related to the reproductive system. Chapters 11 through 18 cover menstrual concerns; fertility management; infertility; sexually transmitted infections (STIs) and vaginitis, including the 2015 STI treatment guidelines from the CDC; special needs of women with HIV; pelvic and abdominal diseases; breast concerns; and health concerns related to the menopausal transition.

Part IV, Promotion of Women's Health Care During Pregnancy, details uncomplicated and complicated pregnancy care, postpartum needs and problems, lactation issues, and fetal surveillance.

Part V, Primary Care Conditions Affecting Women's Health, addresses medical problems frequently encountered in primary care of women such as headaches, anemia, hypertension, asthma, and dermatologic conditions. Chapters 23 and 24 are dedicated to current information on common medical problems. Selected psychosocial problems, such as violence, depression, eating disorders, and their impacts on women, with insights into related health care needs and therapies, are discussed in Chapter 25. Chapter 26 is the new chapter on *Substance Use Disorders in Women.* The need for a separate chapter on this problem is imperative due to the opioid epidemic that arose since the publication of the fourth edition of this text.

The appendices address emergency childbirth and assessment of the newborn (Appendix A), the new elective termination of pregnancy appendix (Appendix B), selected screening tools and apps for women's health (Appendix C), billing and coding in women's health (Appendix D), laboratory values commonly referenced in women's health (Appendix E), and federal agencies in the United States that are concerned with women's health (Appendix F).

We particularly intend this book to be a resource that allows students and any primary health care provider to retrieve basic information easily. We see it as a reference with enough depth to be useful in a clinical setting, serving as a source of teaching advice for clients, including differential medical diagnoses, screening and early intervention measures, and guidelines for referral. Some of the chapters fit more easily into an outline format for diseases or other conditions, whereas many chapters conform to a more traditional text format or a combination format for presentation of issues.

We wish to remind the reader that the scope of advanced practice nursing varies from state to state, and the individual practitioner is responsible for knowing his or her legal limits of practice. Also, recognizing the rapidity with which new knowledge becomes available and standards change, the practitioner must stay ever alert.

Women's health care providers are continuously challenged to expand their knowledge and ability to help women fulfill a wide spectrum of needs, both physical and psychosocial. The provision of women's health has not been limited to reproductive organs for some time now. The broadening scope of women's health care is a critically important issue in this period of rapidly changing health care systems. The Patient Protection and Affordable Care Act of 2010 along with the Institute of Medicine's 2011 broad recommendations for essential services to be included for women hold the potential to greatly expand opportunities for women as well as providers of women's health care services. With these changes, hopefully, the struggle to attain holistic health care services for women will be relieved. That is, as long as the Patient Protection and Affordable Care Act is not drastically changed. If the act is repealed and/or replaced it is not clear what will happen with the recommended essential services for women identified in 2011 by the Institute of Medicine. Resources are burgeoning, empowering women to become more informed consumers in the health care arena. We, with the contributing authors, hope that you as students and primary care providers in a rapidly changing world of health care will find this book a useful and effective resource in your endeavors to provide women with the health care they need and deserve.

Our sincere thanks go to our excellent contributing authors. Their outstanding expertise and effort have made this book the useful clinical reference we envisioned. We also wish to thank the fine editors and staff at Pearson Education for their support and many hours of work on this project. Last, our deep appreciation goes to our families who encouraged us during the months of preparation and work. Special thanks to Robin, a practicing family medicine physician and educator and Ryan, a future physician. A note also goes to our inspiring young women, Megan, Lucia, Michelle, Debbie, Taylor, and Emmy Lou, who join the women of the 21st century in deserving the best health care of the new millennium.

We are deeply saddened by the passing of Ellis Quinn Youngkin on January 31, 2018 and give a special thanks to her family for allowing us to use a copy of her artwork for publication in this edition of the text. Please see the dedication to Ellis included in this front matter. Ellis and Marcia Davis had the original vision for this text and we hope this edition will honor their previous work. We would also like to thank the previous author/editor Catherine Juve for her work on the fourth edition of this well-known and widely used women's health text as well as her assistance in contacting some of the previous authors for this fifth edition. We hope that this new edition continues to contribute to excellence in women's health care and remains the go to text for educators and clinicians.

Diane Marie Schadewald

Ursula A. Pritham

Contributors

Kristine Alswager, MS, RNC, WHNP
Women's Health Care Nurse Practitioner
Women's Health Consultants
Minneapolis, Minnesota

Anne L. Bateman, EdD, APRN, BC
Assistant Professor, School of Nursing
University of Massachusetts Medical School
Worchester, Massachusetts

Mary Benbenek, PhD, RNC, FNP, PNP
Clinical Professor, School of Nursing
University of Minnesota
Minneapolis, Minnesota

Aimee Chism Holland, DNP, WHNP-BC, FNP-C, FAANP
DNP Program Director and Associate Professor, School of Nursing
University of Alabama at Birmingham
Birmingham, Alabama

Linda Christinsen-Rengel, MS, RNC, CNP
Nurse Practitioner
Regions Hospital Breast Health Center
St Paul, Minnesota

Michele R. Davidson, PhD, RN, CNM, CFN
Professor
Sentara College of Health Sciences
Chesapeake, Virginia

Mary Dierich, PhD, RN, C-GNP, MSPH
Adjunct Faculty, School of Nursing
University of Minnesota
Minneapolis, Minnesota

Christine Durler, MS, BSN, RN, CNP
Women's Health Care Nurse Practitioner
Women's Health Consultants
Minneapolis, Minnesota

Melissa A. Dahir, DNP, IF
Nurse Practitioner, Pelvic Pain, and Sexual Medicine Clinic
Omaha OB GYN Associates, P.C.
Omaha, Nebraska

Eva Fried, DNP, WHNP
Adjunct Instructor
Georgetown University
Washington, DC

Cheri Friedrich, DNP, MS, RN, CNP
Clinical Associate Professor, School of Nursing
University of Minnesota
Minneapolis, Minnesota

Melissa Frisvold, PhD, RN, CNM
Faculty, School of Nursing and Health Sciences
Georgetown University
Washington, DC

Karen Trister Grace, MSN, CNM
Adjunct Instructor
Georgetown University
Washington, DC

Debra J. Hain, PhD, ARNP, ANP-BC, GNP-BC, FAANP
Professor/Lead Faculty AGNP
Ronald and Elizabeth Blake Distinguished Professor
FNP Davie Campus Coordinator
Christine E Lynn College of Nursing
Florida Atlantic University
Boca Raton, Florida

Beth Kelsey, EdD, APRN, WHNP-BC, FAANP
Editor-in-Chief
Women's Healthcare: A Clinical Journal for NPs
NPWH Director of Publications
Assistant Professor
School of Nursing
Ball State University
Muncie, Indiana

Monica Moore, MSN, RNC
Nurse Practitioner, Lead Educator
Fertile Health, LLC
Ponte Vedra Beach, Florida

Coralie Pederson, MSN, RN, WHNP
Nurse Practitioner
Family Tree Clinic
St.Paul, Minnesota

Elizabeth Przybylski MSN, RN, WHNP, CNM
Midwife
Gundersen Health
La Crosse, WI

Melissa A. Saftner, PhD, CNM, RN, FACNM
Clinical Associate Professor, School of Nursing
University of Minnesota
Minneapolis, Minnesota

Susan D. Schaffer, PhD, FNP-BC
Retired
University of Florida College of Nursing
Gainesville, Florida

Gwendolyn Short, APRN DNP, MSN, MPH, FNP-BC
Associate Professor, NP Program Director
Department of Nursing
St Catherine University
St Paul, Minnesota

Renee Sieving, PhD, RN, FAAN, FSAHM
Professor, School of Nursing & Department of Pediatrics
University of Minnesota
Minneapolis, Minnesota

Sarah Stoddard, PhD, RN, CNP
Assistant Professor, School of Nursing, Department of Systems, Populations, and Leadership
University of Michigan
Ann Arbor, Michigan

Jennifer M. Sullivan, MS, BSN, RN, CNP
Obstetrics and Gynecology
Fairview Health Services, Blaine Clinic
Blaine, Minnesota

Virginia "Gini" Weisz, PhD, WHNP-BC
Interim Associate Director of the Graduate Programs
Radford University School of Nursing
Waldron College of Health and Human Services
Radford, Virginia

Eugenia Hammett-Zelanko, PhD, RN, PMHCNS-BC
North Texas Veterans Administration Health Care System
Dallas, Texas

Contributors to the Fourth Edition

A special thank you and recognition go to those who contributed to the fourth edition of this book:

Jennifer Demma
Health Promotion and Assessment During Pregnancy

Jennifer R. Gardella
Infertility

Jane F. Houston
Vaginitis and Sexually Transmitted Diseases

Catherine Juve
Epidemiology, Diagnostic Methods, and Procedures for Women's Health
Assessing Adult Women's Health
The Menopausal Transition

Reena Lorntson
Common Gynecologic Pelvic Disorders

Debbie Ringdahl
Maternal Conditions Impacting Risk in Pregnancy

Jo Lynne W. Robins
Integrating Wellness: Complementary Therapies and Women's Health

Debera Jane Thomas
Health Needs of Lesbians and Other Sexual Minority Women

Donna Treloar
Women and HIV

Michelle J. Valentine
Infertility

Susan Wysocki
Nurse Practitioners in Women's Health: Where If the Future Heading?

Contributors to the Third Edition

A special thank you and recognition go to those who contributed to the third edition of this book:

Kathleen M. Akridge
Postpartum and Lactation

Lynette Galloway Branch
Breast Health

Joan Corder-Mabe, RNC, MS, WHCNP
Complications of Pregnancy

Valerie T. Cotter, MSN, CRNP
The Climacteric, Menopause, and the Process of Aging

Leslie Fehan, MS, CNM, WHNP
Integrating Wellness: Complementary Therapies and Women's Health

Elaine Ferrary, MS, RN, CFNP
Common Medical Problems: Cardiovascular Through Hematological Disorders
Common Medical Problems: Musculoskeletal Injuries Through Urinary Tract Disorders

Donna E. Forrest, RNC, MS, FNP, WHCNP
Common Gynecologic Pelvic Disorders

Marion Herndon Fuqua, MS, RNC, WHCNP
Assessing Fetal Well-Being

Jennifer R. Gardella, RNC, MSN
Infertility

Deborah Griswold, MSN, CFNP, ARNP
Menstruation and Related Problems and Concerns

Janet C. Horton, MS, RN, APRN-BC
Health Care Concerns for Women with Physical Disability and Chronic Illness

Rita A. Seeger Jablonski, PhD, RN, ANP-BC
Common Medical Problems: Cardiovascular Through Hematological Disorders
Common Medical Problems: Musculoskeletal Injuries Through Urinary Tract Disorders

Angela Carter Martin, MS, RN, CFNP, CS
Psychosocial Health Concerns

Deborah A. Raines, PhD, RNC, CNS
Assessing Adolescent Women's Health

Maryellen C. Remich, RNC, MS(N), OGNP
Promoting a Healthy Pregnancy

Kathleen J. Sawin, DNS, RN, CS, FAAN
Health Care Concerns for Women with Physical Disability and Chronic Illness

Barbara Peterson Sinclair, MN, OGNP, FAAN
Women and the Health Care System

Rachel Effolia Smith, MSN, FNP-CS
Women and HIV

Kelly L. Cokely Yeong, MS, WHNP
Assessing Health During Pregnancy

Contributors to the Second Edition

A special thank you and recognition go to those who contributed to the second edition of this book:

Brenda T. Brickhouse
Emergency Childbirth

Cynthia W. Bailey
Assessing Health During Pregnancy

Sharon Baker
Menstruation and Related Problems and Concerns

Judith B. Collins
Women and the Health Care System

Judy Parker-Falzoi
Common Medical Problems

Martha Edwards Hart
Immediate Assessment of the Newborn

Judith A. Lewis
Legal Issues in Primary Care of Women

Cathy James
Infertility

Mary Beth Bryant McGurin
Emergency Childbirth

Nancy Sharp
Women and the Health Care System

Reviewers

Adena Bargad, PhD, MSN, CNM
Assistant Professor of Nursing, CUMC
Director, Women's Health Subspecialty
School of Nursing
Columbia University
New York, New York

Diana Dowdy, DNP, CNM, RDMS
Instructor of Clinical Nursing, WHNP program
School of Nursing
Vanderbilt University
Nashville, Tennessee

Shellie O. Hawk, MSN, RN, CNM
Interim Concentration Coordinator WHNP
Kent State University
Kent, Ohio
Assistant Director Midwife Services
Cleveland Clinic
Cleveland, Ohio

Melinda McGaughy, DNP, APRN, FNP-BC
Assistant Professor of Clinical Practice
College of Nursing
The Ohio State University
Columbus, Ohio

Part I

Women, Health, and the Health Care System

Chapter 1

Access to Women's Health Care in the United States: Affordability, Equity, Rights

Beth Kelsey

Outline

Learning Objectives

1.1 Describe demographics of women in the United States.

1.2 Discuss funding for women's health care in the United States.

1.3 Explain concepts of health equity, health inequity, health disparity, and social determinants of health.

1.4 Discuss the history of and challenges to women's health rights.

Introduction

As clinicians, we should all strive to provide women's health care that is holistic, honors diversity and inclusion, and embraces engagement with clients as partners in decision making. To do so, we must be cognizant of the systems that influence health care and health care outcomes. This chapter focuses on the interconnection of the components that make up the United States (U.S.) health care system and that influence the quality and accessibility of health care for women. As well, it provides insight into the issues of equity and rights that are inextricably bound to quality and accessibility of health care for women in the United States.

Women in America—Who They Are

Women's biology, life circumstances, and experiences provide them with a unique set of health needs and health issues that vary throughout the lifespan. (See Chapter 3 for epidemiologic information on women's health.) Beyond gender and age, the intersection of determinants such as race and ethnicity, socioeconomic status, geographic location, sexual orientation, and gender identity influence women's health and health care.

Females make up 51 percent of the U.S. population. Reproductive-age females (aged 15 to 49) make up approximately 22.7 percent (76 million), females aged 50 to 64 make up a little over 9.9 percent (33 million) and females aged 65 and older make up almost 8.3 percent (28 million) of the total population (U.S. Census, 2016). Women who reached age 65 in 2016 can expect, on average, to live up to 85.6 years of age compared to 83 years of age for men. The number of women aged 65 and older is expected to double to over 44 million by 2035 (American Association of Retired Persons [AARP] Public Policy Institute, 2015).

As of 2016, approximately 23 percent of females were of a racial minority, and 8.6 percent were of Hispanic or Latina ethnicity. The racial and ethnic diversity of women in the United States is growing across all ages (U.S. Census Bureau, 2016). Projections indicate that people of color will represent the majority of the U.S. population by 2050 (American College of Obstetricians and Gynecologists [ACOG], 2015).

Nearly 16.3 million or one in every eight women lives in poverty. Poverty rates are exceptionally high for Black women (21.4%), Hispanic women (18.7%), and Native American women (22.8%). Families headed by single mothers are 5.4 times more likely than married-couple families to live in poverty. Overall, women make up nearly two-thirds of the elderly poor (National Women's Law Center, 2017).

U.S. Health Care System—Affordability of Health Care for Women

Health care systems are composed of resources, organization, financing, and management that culminate in the delivery of health services to a population. The World Health Organization (WHO) describes a good health care system as one that delivers quality services to all people, when and where they need them (WHO, n.d.). In the United States, this access to quality health care is dependent on the capacity to afford care, the availability of that care, and the ability to navigate effectively within a sometimes complicated and complex health care system. Driven by both governmental and nongovernmental funding, policies, and delivery mechanisms, the U.S. health care system has been described in both positive and negative terms. By some, it is considered to provide the best care in the world. By others, it is described as fragmented, inefficient, and more costly than care in any other country (Porche, 2019).

The capacity for individuals to afford health care in the United States is dependent on several mechanisms, including private insurance, the self-pay fee for service, and several government-funded programs. The largest funder of health care services in the United States is the federal government. Thus, the federal government establishes a considerable amount of policy that influences health care service delivery through financing and mobilization of funds (Porche, 2019). This government role in funding and setting policies regarding health care became highly significant in 1965 with the authorization of the Medicare and Medicaid programs through Title XVIII and Title XIX of the Social Security Act.

MEDICARE Medicare was created to fund health care, primarily hospital care, for people aged 65 years and older, regardless of income, medical history, or health status. In 1972, the program was expanded to cover people under age 65 with permanent disabilities. In the early 1990s, coverage for preventive services such as Pap tests and screening mammograms was added with a 20 percent co-pay requirement. In 2003, Medicare Part D was established, offering prescription drug coverage (Salganicoff, 2015).

Today, Medicare helps pay for many medical services, including hospitalizations, health care provider visits, prescription drugs, and preventive care, along with skilled nursing facility care, home health care, and hospice care. Medicare recipients include approximately 24 million women (Salganicoff, 2015). With the passage of the Affordable Care Act in 2010, Medicare preventive care service benefits have expanded.

MEDICAID Medicaid provides health care coverage to eligible low-income adults, children, pregnant women, elderly adults, and people with disabilities. The program is funded jointly by individual states and the federal government. The federal government has established specific requirements all states must follow. For states to participate in Medicaid, they are required to cover specified groups of individuals. Beyond the mandatory eligibility classifications, states may choose to include other groups (Kaiser Family Foundation [KFF], 2017a).

Other than children, the majority (36%) of Medicaid recipients are women. Approximately two-thirds of adult women on Medicaid are in their reproductive years. In 2014, 19.1 million reproductive-age women were enrolled in the program (KFF, 2017a). Medicaid is the largest single payer of pregnancy-related services, financing 48 percent of all U.S. births in 2010 (Sonfield & Kost, 2015). All pregnant women who are uninsured and whose income is

at or below 133 percent of the federal poverty level (FPL) are eligible for Medicaid. Pregnant women with Medicaid are covered for all care related to pregnancy, delivery, and any complications that may occur during pregnancy and up to 60 days postpartum.

One in three nonelderly women with disabilities receives medical and supportive services through Medicaid. Additionally, women aged 65 and older may rely on Medicaid to cover nursing home stays and long-term care expenditures not covered by Medicare. Eligibility is based on income and assets as determined by individual states. Because women are more likely to live longer and experience higher rates of chronic illness and disability than men, they are more likely to require long-term care services in their lifetime. Approximately two-thirds of nursing home residents (66%) and people receiving home health care (62%) are women (KFF, 2017a).

AFFORDABLE CARE ACT In 2010, President Obama signed the Patient Protection and Affordable Care Act (ACA) into law. The ACA provided the single largest expansion in health insurance since the inception of Medicare and Medicaid. Over the first few years of the ACA, Medicaid was expanded, and tax credits were established so adults who lacked access to employer coverage could afford to purchase private insurance through a health insurance exchange program. Adults were mandated to obtain health insurance coverage or pay a fine for noncompliance (Porche, 2019). Under the ACA, all insurance plans must cover treatment for preexisting medical conditions. As well, adult children up to age 26 years can stay on their parent's insurance plan regardless of employment, student, or marital status. From the time of implementation of the ACA until 2017, the number of Americans with health insurance has significantly increased. For adult women under 65 years of age, this equaled a decline in the number of uninsured from 18 percent in 2013 to 12 percent in 2017 (Ranji, Rosenzweig, & Salganicoff, 2018a).

Within the ACA, there are a set of 10 categories of services (health benefit essentials) that health insurance plans must cover. These categories are ambulatory patient services; emergency services; hospitalization; pregnancy, maternity, and newborn care; mental health and substance use disorder services; prescription drugs; rehabilitative and habilitative services and devices; laboratory services; preventive and wellness services and chronic disease management; and pediatric services, including oral and vision care.

Because of the shift to a focus on preventive and wellness care, the ACA mandates health insurance, whether purchased through the health insurance exchange program or provided through the individual's employer, cover specific preventive services with no deductible or co-pay as long as the individual receives this care within the plan's network. Medicaid and Medicare must also cover specified preventive services with no out-of-pocket cost. An estimated 55.6 million women now have access to these no-cost preventive services (National Family Planning and Reproductive Health Association [NFPRHA], 2017a). See Table 1–1.

Table 1–1 ACA Women's Preventive Health Services Covered with No Cost Sharing

Preventive services	With U.S. Preventive Services Task Force (USPSTF) Grades "A" or "B" recommendations
Vaccinations	Recommended by CDC Advisory Committee on Immunization (ACIP)
Pregnancy-related care	Includes screening, counseling, and interventions
Additional women's preventive service*	Well-woman visits—at least one visit annually to obtain recommended preventive services, including pre/inter-conception care; primary purpose is delivery and coordination of recommended preventive services determined by age and risk factors Counseling for sexually transmitted infections—sexually active women Counseling and screening for HIV—sexually active women Human papilloma virus test as co-test with cervical cytology for women above 30 years of age; no more frequently than every 3 years Contraceptive methods and counseling—All Food and Drug Administration (FDA) approved methods, sterilization procedures, education and counseling for all women with reproductive capacity Screening and counseling for interpersonal and domestic violence Urinary incontinence screening Screening for diabetes in women with a history of gestational diabetes Screening for gestational diabetes between 24 and 28 weeks gestation and at first prenatal visit for women identified to be at high risk for diabetes Breastfeeding support, supplies, and counseling
Medicare covered preventive services at welcome and yearly wellness visits (CMS)**	Health history and risk assessment for personalized prevention plan Preventive services with USPSTF Grades "A" or "B" recommendations Vaccinations—recommended by CDC ACIP Advance care planning

*Recommended by Institute of Medicine (2011) and supported by Health Resources Services Administration (HRSA); most recently updated through the ACOG (2017) Women's Preventive Services Initiative. (2016).

** Center for Medicare and Medicaid Services (CMS) (2018).

The ACA also requires most plans provide no-cost coverage for FDA-approved prescription contraceptive services and supplies for women. In 2017, 75 percent of privately insured women who use prescription contraception reported their insurance fully covered the cost. This represents a substantial increase in no-cost contraceptive coverage since 2013 when it was 45 percent (Rosenzweig, Ranji, & Salganicoff, 2018). Under the ACA's preventive services provision, Medicaid must also cover contraception with no co-pay (Rosenzweig et al., 2018).

TITLE X FAMILY PLANNING PROGRAM The Title X family planning program was enacted during the Nixon administration in 1970 as a safety net to provide funding for a range of sexual and reproductive health care services at no cost to uninsured individuals at or below the poverty level and on a sliding fee scale to low- and moderate-income individuals. Services funded by Title X include pregnancy testing, contraception, cervical cancer screening, clinical breast exams for cancer screening, sexually transmitted infection screening and treatment, and HIV testing (NFPRHA, 2017b). The program is funded through the Health Resources Services Administration (HRSA) with an annual discretionary appropriations process by Congress. The program is administered by the Office of Population Affairs (OPA) within the Department of Health and Human Services (DHSS). Title X funds can be allocated to any clinic that provides family planning services to poor- and low-income clients. These clinics include Planned Parenthood centers, community health centers, health departments, school-based clinics, and some other private nonprofit entities (Ranji, Salganicoff, Sobel, Rosenzweig, & Gomez, 2017). In 2016, Title X-funded providers served more than 4 million clients with 64 percent having incomes at or below the FPL and 43 percent being uninsured (NFPRHA, 2017b).

The Title X program is specifically focused on family planning services and has never funded the provision of prenatal care or abortion care. In 1988, the Reagan administration promulgated restrictions prohibiting providers at Title X-funded sites from providing abortion information or referral to an abortion provider even if such information was requested by the client. Additionally, providers were mandated to provide all pregnant clients with information on prenatal care and social services, regardless of what options the client wanted to pursue. This ruling was referred to as the *domestic gag rule*. Over a period of 5 years, interpretations of the gag rule were disputed with the rule implemented in some states and not in others. In 1993, President Clinton issued a presidential memorandum directing DHHS to rescind the gag rule and promulgate new proposed regulations. The new regulations finalized in 2000 required providers to provide nondirective options counseling for clients with a positive pregnancy test. The regulations clarify that Title X funds could not be used to provide abortion care or to facilitate a client obtaining such care (i.e., making an appointment for her) (NFPRHA, 2018).

CHALLENGES TO AFFORDABLE HEALTH CARE While the number has decreased significantly with the ACA, approximately 12 percent of adult women under 65 years of age remained uninsured in 2017. Overall, close to one-half of these uninsured women (49%) reported that they had delayed or gone without care in the prior year due to costs (Ranji et al., 2018a, 2018b).

In states that did not expand their Medicaid programs, there are coverage gaps for adults with incomes below 100 percent of the FPL, and who are ineligible for Medicaid under the state's existing law. Approximately 5.3 million people fall into this category. As well, individuals who have an "affordable" offer of health insurance from an employer are not eligible for tax credits through the marketplace. Offers are considered affordable if the employee's contribution for single coverage is less than 9.5 percent of the family income. This criterion is based on the cost of single coverage and not inclusion of family coverage (RAND Corporation, 2015). Thus family coverage may not be affordable.

Immigrant women of reproductive age are approximately 70 percent more likely than the U.S.-born women in the same age group to lack health insurance (Center for Reproductive Rights, 2014). Noncitizens who are lawfully present in the United States must wait 5 years before they can enroll in Medicaid, and some states do not allow them to enroll even after completion of this waiting period. Undocumented immigrants are not eligible for Medicaid and are prohibited from purchasing private insurance through health insurance exchanges even with their own money (Center for Reproductive Rights, 2014).

The cost of prescription drugs remains one of the top health care concerns among Americans. One in three uninsured women reports either not filling a prescription, skipping doses, or cutting pills in half because of cost (Ranji et al., 2018a, 2018b). While most prescription drugs are covered under Medicaid plans, there is often a required co-pay. For drugs that may only be partially covered or not covered at all, there are some options available to receive a rebate for some or all of the cost of the prescription (KFF, 2017a). Still, 1 in 10 women on Medicaid report not filling a prescription because of the cost (KFF, 2017a). Medicare recipients must enroll in a supplemental insurance program with monthly premiums to cover outpatient prescriptions although there may still be out of pocket costs. One in 10 older women on Medicare do not have supplemental coverage (KFF, 2017b).

Limited Medicare coverage for long-term-care (LTC) services disproportionately burdens women. About two-thirds of all residents of nursing homes and residential

care communities are women (KFF, 2017a). Out-of-pocket costs can be prohibitive and many women must rely on supplemental Medicaid (KFF, 2017a). Gaps in LTC support services also have implications for the financial, physical, and emotional well-being of informal caregivers for older adults. The majority (66%) of these caregivers are women (Roth, Fredman & Haley, 2015).

Since its inception, the ACA overall and several specific provisions have been challenged on the grounds of being too costly, limiting states' rights, and being unconstitutional. Calls for a complete repeal have not been successful. However, bills have been proposed to make significant changes. Key among the proposed changes are the repeal of individual and employer mandates regarding health insurance coverage and ending the option for states to expand Medicaid going back to eligibility criteria from before 2014 for all new enrollees (RAND Corporation, 2017).

The Trump administration proposed revisions in Medicaid regulations to include work requirements, limiting how long an individual can be enrolled, locking out enrollees for a period if they do not follow specific rules, and mandatory drug testing (Solar & Sonfield, 2017). These considered revisions reflect a vision of Medicaid as a welfare program that people should rely on only briefly during their lives. Since its inception, Medicaid has experienced transformations initially centered on providing reproductive health care and finally culminated in the expansion of Medicaid as a long-term solution to health coverage for low-income individuals under the age of 65. Medicaid covers 20 percent of women of reproductive age, pays for close to half of U.S. births, and accounts for 75 percent of public dollars spent on family planning (Solar & Sonfield, 2017). Close to half (49%) of women on Medicaid work full- or part-time outside the home. Of those not working outside the home, 12 percent are ill or disabled, 6 percent are going to school, and 18 percent are taking care of their family or household (KFF, 2017a).

Access to sexual and reproductive health services is also challenged in other ways. The ACA policy requiring that private insurance plans, including employer-sponsored programs, cover the full cost of prescription contraceptives has been tested by the courts since it was put in place. Some employers with religious or moral objections to contraception claimed that the policy violated their religious rights and were granted limited exemption from providing coverage directly for contraceptives. In October 2017, the Trump administration broadened the exemption to the requirement for contraceptive coverage, although the broadened exemption has been blocked from implementation (Rosenzwieg et al., 2018). The Trump administration also proposed to remove the nondirective options counseling regulation so that a provider in a Title X-supported clinic could opt not to provide any information on abortion. Additionally, the Trump administration proposed to defund clinics (Title X and Medicaid) that provide abortion services, affecting primarily Planned Parenthood. (NFPRHA, 2018; Ranji et al., 2017).

IMPLICATIONS FOR PRACTICE Clinicians cannot provide the best care for women without an understanding of payment mechanisms, that is, what is covered and what is not included. Women of all ages should be encouraged to partake in all of the preventive health care services with mandated coverage. Clinicians should also consider cost as a factor in medication adherence when making drug choices and help clients utilize prescription medication assistance programs when needed.

Additionally, to advocate for quality, affordable and accessible reproductive and preventive health care for women, clinicians must be knowledgeable about proposed health care funding revisions and service restrictions. There are both governmental and nongovernmental resources available to stay up-to-date and to help clinicians analyze policy proposals to determine the effect they may have on the health of women. Please see the end of this chapter for a list of some nongovernmental resources and Appendix F for a list of some governmental resources.

Health Equity

Biological and genetic factors and individual health behaviors are traditionally the determinants used to explain why individuals are healthy or become sick. However, there is sound evidence that social determinants of health (SDH) affect health outcomes as much as biological and health behavior factors (Metzl & Hansen, 2014). SDH include nonmedical factors such as employment, income, housing, transportation, child care, education, discrimination, and the quality of places where people live, work, learn, and play (Braveman, Arkin, Orleans, Proctor, & Plough, 2017; DHHS, 2018a). SDH have been shown to affect many conditions related to women's health, including but not limited to preterm birth, unintended pregnancy, infertility, cervical cancer, breast cancer, and maternal mortality (ACOG, 2018).

The terms *health inequity and health disparity* are not synonymous yet must be looked at in conjunction with each other. Health inequity exists when differences in health are avoidable, unfair, and unjust. Health equity exists when everyone has a fair and just opportunity to be as healthy as possible. Health equity is a guiding principle that motivates action to eliminate health disparities and can be a metric for assessing progress toward health equity (Braveman et al., 2017). Health disparities are differences in health primarily linked with SDH. Health disparities adversely affect groups of people who have systematically faced obstacles to health based on

characteristics historically linked to discrimination or exclusion. These characteristics include, but are not limited to, gender, race, age, ethnicity, socioeconomic status, sexual orientation, gender identity, and disability status (DHHS, 2018b).

A broad approach with attention to SDH at all levels—federal, state, community, and within each clinician's practice—is crucial to eliminate health disparities and to achieve health equity. Such an approach requires a greater focus on health within non-health sectors and recognizing and addressing health-related social needs through the health care system. Successful interventions will be multifactorial and require collaboration across sectors (Artiga & Hinton, 2018). Verbiest, Malin, Drummonds, and Kotelchuck (2016) propose that collaboration is essential in a reproductive and social justice movement to engage thought leaders and community advocates to create change.

Clinicians can advocate for federal and state policies and public health initiatives, but can also implement changes within their clinical practices and communities to reduce health disparities. ACOG (2018) suggests specific actions that include screening for SDH in the health history, establishing social service liaisons within the community that can provide assistance with essential resources (e.g., food pantries, utility bill payment), developing medical-legal partnerships to enable clients to receive help with legal matters that directly affect their health (e.g., access to safe housing, legal aid for immigration challenges), and having professional interpreters available.

Clinicians must be humble about recognizing the limits of their knowledge about a client's situation. This entails avoiding generalizing assumptions, being aware of biases, using client-centered communication, and being respectful when asking open-ended questions to better understand the client's circumstances and values (ACOG, 2018). Recognizing the importance of SDH can help clinicians better understand clients, effectively communicate about health-related conditions and behavior, and improve health outcomes.

Women's Health Rights

Some of the most critical decisions protecting women's rights to control their bodies and destinies have come with landmark U.S. Supreme Court rulings in the past 50 years. These decisions have all favored the side of the right to privacy. The U.S. Constitution does not explicitly protect the right to privacy. Decisions regarding this right typically have been based on interpretation of amendments within the Bill of Rights (Linder, 2018). The Court may be called upon to resolve conflicts between levels of government (state and federal) or between laws enacted by the legislature and the interests of specific groups. Judicial interpretation occurs in three ways. The Court may interpret the meaning of laws that are written broadly or with some vagueness, may interpret how some laws are applied, and may declare that a law made by Congress or the states is unconstitutional, thereby nullifying the statute entirely (Milstead, 2016).

One of the first landmark U.S. Supreme Court decisions protecting the right to privacy was *Griswold v. Connecticut* (1965). This case stemmed from a statute passed in 1879, whereby the state of Connecticut prohibited the use of any drug, medicinal article, or instrument to prevent conception. When Planned Parenthood opened a clinic in New Haven, Connecticut, in 1961 to provide contraception to married women, the medical director, Dr. Buxton, and the executive director, Estelle Griswold, were arrested and charged with a misdemeanor related to their clinic work. They appealed their convictions and challenged the validity of the law with the case making it to the U.S. Supreme Court. In 1965, the Court found in favor of Griswold that married couples had the right to use contraception while engaging in private acts. The fundamental right to privacy established through this ruling has extended to other Supreme Court decisions related to rights regarding reproductive choices and sexual freedoms. In 1972, the U.S. Supreme Court held that under the equal protection clause of the U.S. Constitution, unmarried couples had the same right to contraception as married couples (*Eisenstadt v. Baird*) (Linder, 2018).

Based on the right to privacy, in the 1973 case of *Roe v. Wade*, the U.S. Supreme Court struck down a law prohibiting abortion. The Court decision regarding *Roe v. Wade* made abortion legal in all 50 states (Linder, 2018). Since that time, federal and state governments have sought to institute regulations that erode a woman's ability to obtain safe, legal abortion. The 1976 Hyde Amendment blocked the use of federal funds to pay for abortion with exceptions only for pregnancies that endanger a woman's life or that result from rape or incest. The Trump administration is considering further restrictions to disqualify all individual insurance plans that offer abortion coverage from receiving federal assistance for cost-sharing reduction payments and other mechanisms to stabilize premiums. Mainly, this would serve as a major financial disincentive for plans to offer abortion coverage for policyholders (Sobel, Rosenzweig, & Salganicoff, 2018).

Additionally, individual states have implemented laws and restrictions that significantly limit a woman's access to abortion. Such limits include 24-hour waiting periods, added qualifications for abortion clinics and abortion providers, parental notification, and gestation limits. Because of these restrictions in many areas of the country, women must travel hundreds of miles to find qualified abortion providers. Thus, access to abortion is not ensured by the right to have an abortion.

In the 2013 *United States v. Windsor* case, the U.S. Supreme Court struck down Section 3 of the 1996 Defense of Marriage Act (DOMA) which denied federal recognition to same-sex marriages. In 2015, the Court in *Obergefell v. Hodges* overruled a prior decision and held in a 5–4 decision that the Fourteenth Amendment requires all states to grant same-sex marriages and recognize same-sex marriages granted in other states. This ruling came 12 years after *Lawrence v. Texas* in which the Court struck down laws that had remained in 13 states prohibiting couples from engaging in same-sex sexual relationships (Linder, 2018).

Ross and Solinger (2017), long-time reproductive justice activists and scholars, describe three primary principles for reproductive justice: (1) the right not to have a child, (2) the right to have a child, and (3) the right to parent children in safe and healthy environments. Additionally, they note that sexual autonomy and gender freedom for all individuals are imperative to reproductive justice.

During the 20th century, the U.S. Supreme Court supported laws to ensure the right to obtain contraception and abortion services. As we moved into the 21st century, we saw the ACA expand the availability of health insurance coverage for more individuals, with preventive health care services that included contraception. In this 21st century, the Supreme Court has supported at least some laws that promote sexual autonomy and gender freedom. Today. we face uncertainty regarding protection of these accomplishments. Being able to move forward in our quest for true health equity and reproductive justice requires that clinicians provide the best health care for women, and be knowledgeable advocates for health care systems, policies, and legislation that support social and reproductive justice as well as accessibility and affordability of quality health care for all.

NONGOVERNMENTAL ORGANIZATION RESOURCES: WOMEN'S HEALTH POLICY, EQUITY, AND RIGHTS

American College of Nurse Midwives (ACNM) www.midwife.org

American College of Obstetricians and Gynecologists (ACOG) www.acog.org

Association of Reproductive Health Professionals (ARHP) www.arhp.org

Association of Women's Health, Obstetrics and Neonatal Nurses (AWHONN) www.awhonn.org

Center for Reproductive Rights www.reproductiverights.org

Guttmacher Institute www.guttmacher.org

Kaiser Family Foundation www.kff.org

National Abortion Federation (NAF) www.prochoice.org

National Association of Nurse Practitioners in Women's Health (NPWH) www.npwh.org

National Family Planning and Reproductive Health Association (NFPHRA) www.nationalfamilyplanning.org

National Women's Law Center (NWLC) www.nwlc.org

North American Menopause Society (NAMS) www.menopause.org

Planned Parenthood Federation of America (PPFA) www.plannedparenthood.org

References

American Association of Retired Persons Public Policy Institute. (2015). *Population projections by age, sex, and race/ethnicity*. Retrieved from https://dataexplorer.aarp.org

American College of Obstetricians and Gynecologists (ACOG). (2015, reaffirmed 2018). Committee Opinion Number 649: Racial and ethnic disparities in obstetrics and gynecology. *Obstetrics and Gynecology, 126*, e130–134.

American College of Obstetricians and Gynecologists (ACOG). (2017). *Recommendations for preventive services for women: Final report to the U.S. Department of Health and Human Services, Health Resources & Services Administration/developed by the Multidisciplinary Steering Committee of the Women's Preventive Services Initiative*. Washington, DC: ACOG.

American College of Obstetricians and Gynecologists (ACOG). (2018). Committee Opinion Number 729: Importance of social determinants of health and cultural awareness in the delivery of reproductive health care. *Obstetrics and Gynecology, 131*, e43–e48.

Artiga, S., & Hinton, E. (2018). Beyond health care: The role of social determinants in promoting health and health equity. *Kaiser Family Foundation Issue Brief*, May, 2018.

Braveman, P., Arkin, E., Orleans, T., Proctor, D., & Plough, A. (2017). *What is health equity? And what difference does a definition make?* Princeton, NJ: Robert Wood Johnson Foundation.

Center for Reproductive Rights. (2014). *Reproductive injustice: Racial and gender discrimination in U.S. health care*. Retrieved from: http://www.reproductiverights.org/sites/crr.civicactions.net/files/documents/CERD_Shadow_US.pdf

Centers for Medicare and Medicaid Services. (2018). *Preventive services*. Retrieved from https://www.cms.gov/Medicare/Prevention/PrevntionGenInfo/index.html

Department of Health and Human Services (DHHS). (2018a). Healthy People 2020: Social determinants of health. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

Department of Health and Human Services (DHHS). (2018b). Healthy People 2020: Disparities. Retrieved from: https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities

Institute of Medicine. (2011). *Clinical preventive services for women: Closing the gaps*. Washington, DC: National Academies Press.

Kaiser Family Foundation (KFF). (2017a). An overview of Medicaid. *Kaiser Family Foundation Fact Sheet*, June, 2017, 1–13.

Kaiser Family Foundation (KFF). (2017b). An overview of Medicare. *Kaiser Family Foundation Issue Brief*, November, 2017, 1–13.

Linder, D. (2018). *Exploring constitutional law*. http://law2.umkc.edu/faculty/projects/ftrials/conlaw/home.html (June 16, 2018).

Metzl, J., & Hansen, H. (2014). Structural competency: Theorizing a new medical engagement with stigma and inequality. *Social Science Medicine, 103*(126–133).

Milstead, J. (2016). *Health policy and politics: A nurse's guide* (5th ed.). Burlington, MA: Jones & Bartlett Learning.

National Family Planning and Reproductive Health Association (NFPRHA). (2017a). *Affordable Care Act*. Retrieved from https://www.nationalfamilyplanning.org/Health_Care_Reform

National Family Planning and Reproductive Health Association (NFPRHA). (2017b). *Title X: An introduction to the nation's family planning program*. Retrieved from https://www.nationalfamilyplanning.org/file/Title-X-101-November-2017-final.pdf

National Family Planning and Reproductive Health Association (NFPRHA). (2018). *Fact Sheet: Domestic gag rule*. Retrieved from https://www.nationalfamilyplanning.org/file/Domestic-Gag-Rule-Fact-Sheet—May-2018-003.pdf

National Women's Law Center. (2017). *Women and poverty: State by state*. Retrieved from https://nwlc.org/resources/women-and-poverty-state-state

Porche, D. (2019). *Health policy: Applications for nurses and other health care professionals* (2nd ed.). Burlington, MA: Jones and Bartlett Learning.

RAND Corporation. (2015). *The Affordable Care Act in depth*. Retrieved from https://www.rand.org/health/key-topics/health-policy/aca/in-depth.html

RAND Corporation. (2017). *The future of U.S. health care: Repeal or revise the Affordable Care Act*. Retrieved from https://www.rand.org/health/key-topics/health-policy/in-depth.html

Ranji, U., Rosenzweig, C., & Salganicoff, A. (2018a). Women's coverage, access and affordability: Key findings from the 2017 Kaiser women's health survey. *Kaiser Family Foundation Issue Brief*, March 2018, 1–10.

Ranji, U., Rosenzweig, C., & Salganicoff, A. (2018b). Women's connections to the health care delivery system: Key findings from the 2017 Kaiser women's health survey. *Kaiser Family Foundation Issue Brief*, March 2018, 1–10.

Ranji, U., Salganicoff, A., Sobel, L., Rosenzweig, C., & Gomez, I. (2017). Financing family planning services for low-income women: The role of public programs. *Kaiser Family Foundation Issue Brief*, May, 2017, 1–13.

Rosenzweig, C., Ranji, U., & Salganicoff, A. (2018). Women's sexual and reproductive health services: Key findings from the 2017 Kaiser women's health survey. *Kaiser Family Foundation Issue Brief*, March 2018, 1–13.

Ross, L., & Solinger, R. (2017). *Reproductive justice: An introduction*. Oakland, CA: University of California Press.

Roth, D., Fredman, L., & Haley, W. (2015). Informal caregiving and its impact on health: A reappraisal from population based studies. *The Gerontologist, 55*, 309–319.

Salganicoff, A. (June, 2015). Women & Medicare: An unfinished agenda. *Generations*. Retrieved on September 2, 2018 from www.asaging.org/blog/there-bright-future-medicare

Sobel, L., Rosenzweig, C., & Salganicoff, A. (2018). Abortion coverage in the Bipartisan Health Care Stabilization Act of 2018 (S.1771). *Kaiser Family Foundation Issue Brief*, March 2018, 1–4.

Solar, O., & Sonfield, A. (2017). *Efforts to transform the nature of Medicaid could undermine access to reproductive health care*. New York: Guttmacher Institute. Retrieved from https://www.guttmacher.org/gpr/2017/10/efforts-transform-nature-medicaid-could-undermine-access-reproductive-health-care

Sonfield, A., & Kost, K. (2015). *Public costs from unintended pregnancies and the role of public insurance programs in paying for pregnancy-related care: National and state estimates for 2010*. New York: Guttmacher Institute. Retrieved from https://www.guttmacher.org/report/public-costs-unintended-pregnancies-and-role-public-insurance-programs-paying-pregnancy

U.S. Census Bureau. (2016). Annual estimates of the resident population by sex, age, race alone or in combination, and Hispanic origin for the United States: April 1, 2010 to July 1, 2016. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2016_PEPAGESEX&prodType=table

Verbiest, S., Malin, C., Drummonds, M., & Kotelchuck, M. (2016). Catalyzing a reproductive health and social justice movement. *Maternal Child Health Journal, 20*, 741–748.

World Health Organization (WHO). (n.d.). Health topics: Health systems. Retrieved from http://www.who.int/topics/health_systems/en

Chapter 2

Women's Development into the 21st Century

Diane Marie Schadewald

Outline

Learning Objectives

2.1 Apply growth and development theories to women's health.

2.2 Analyze the impact of societal trends on different life stages for women.

2.3 Relate how women are influencing their development in the new millennium.

Perhaps as more emphasis is given to female perspectives, society can move toward acceptance of power-with, rather than power-over, which would help facilitate a more peaceful environment on a larger scale. (Lewis & Bernstein, 1996)

Introduction

To define and understand women's development, one must consider the societal norms that prevail over time. In the 1950s, changes in women's lives were associated with fewer births, extended longevity, broader acceptance of lifestyle options in marriage and family formation, and attachment to the labor force (O'Rand & Henrette, 1982). Changes during the late 1960s and early 1970s led to women's realization that many individual concerns they had previously been hesitant to discuss were widespread and political. "The personal is political" slogan reflected energy borne out in consciousness-raising groups where women talked about their lived experiences and discovered their innermost feelings were shared by women in general. A period of self-discovery ensued. Women began to break out of socially constrictive stereotypes, and academic programs in women's studies arose (Grosskurth, 1991). The concept of *her*story versus *his*tory was introduced (Morgan, 1970). All of these changes slowed in more socially conservative times during the last two decades of the 20th century.

(*Continued*)

In the 21st century, a higher percentage of women, compared with their mother's generation, are better educated, spend more of their adult life living alone, and bear their first child at a later age or choose to remain childless (Walker, 2011). Women are consistently in the labor force, balancing work and family while encouraged to "lean in" regarding their career choices (Sandberg, 2013). In January of 2017, women marched in Washington, DC, as well as many cities in the United States and around the globe, the day after the presidential inauguration of a man who was caught on tape making demeaning remarks about women. In October of 2017, after Hollywood executive Harvey Weinstein was accused of sexual harassment, the #MeToo movement exploded. Women and men who had experienced sexual harassment were asked to respond metoo to a Twitter feed if they had also experienced sexual harassment. Many famous and not-so-famous individuals began talking about how they had experienced similar sexual harassment and were no longer going to remain silent (Johnson & Hawbaker, 2018).

Is the contemporary view of society toward women indeed different, however, from the past? The answer must be an equivocal yes. The #MeToo movement continues, more women are running for public office, and there has been a Women's March every year since January of 2017. Between 2017 and 2018, the Equal Rights Amendment (ERA) to the U.S. Constitution, passed by Congress in 1972, was ratified by two more states and became within one state of full ratification. However, women who do not marry and reproduce still may be viewed as having failed to develop their fullest potential. Moreover, femininity has long been, and to a great extent continues to be, equated with passivity, looking attractive, making relationships work, and being unselfish and of service while being competent without complaint (Levine, 2005; Pipher, 1994; Sandberg, 2013). As the 21st century progresses, women continue in a state of flux, where old role-restricting expectations have broken down, but unfortunately have yet to be completely replaced with new ideas and actions.

Growth and Development

Growth and development are often viewed according to a person's stage in the life cycle. Whereas *growth* refers to quantitative physical and physiological changes, *development* encompasses more qualitative changes, including functional, psychosocial, and cognitive behaviors. Both areas need to be assessed by health care providers to offer anticipatory guidance to women as they adapt to personal and environmental changes. The developmental theories most closely linked to sequential ages and life stages have frequently been used for clinical evaluation. Controversy exists, however, about the applicability of such theories to women, particularly because cultural biases may be a problem. Developmental norms may not apply to all cultural backgrounds, and stage theories could promote ageism if one does not fulfill expectations, such as marriage, by a given point in life (Erikson, 1968; Norman, McCluskey-Fawcett, & Ashcroft, 2002). In the 21st century, the concept that one must achieve certain goals by a given age has become more fluid (Stassen Berger, 2016). Nevertheless, familiarity with these theories is helpful.

A growing body of knowledge is emerging regarding the impact of adverse childhood experiences (ACEs) both emotionally and physically later in life. Physical changes are thought to possibly extend to the epigenome and, therefore, to future generations. Assessment by clinicians to determine the presence and number of ACEs may become routine to evaluate potential problems with growth and development and plan appropriate intervention (Anda, Butchart, Felitti, & Brown, 2010). See Chapter 5 for more information about an assessment of ACEs and Appendix C for an assessment tool.

Today, women's lives are very complex. Numbers of different life cycles and lines of development exist, overlap, conflict, and perhaps enhance each other. Seiden (1989) whimsically referred to a "life pretzel" where the biological-reproductive circle, the family-marital circle, and the educational-vocational circle are all bound together. Considering women's lives as a simple circle tied to a reproductive life cycle simply no longer suffices (if it ever did).

Stage Theories of Development

Investigation of developmental change across the lifespan has gained prominence over the past several decades, largely as a result of psychoanalytic influence. Although the lifespan developmental framework focused primarily on men, the resulting theories were generalized to apply to both sexes. Women's development, seldom alluded to, was viewed narrowly and judged aberrant if gender development did not conform to the accepted pattern (Kaschak, 1981).

Characteristics commonly attributed to women, such as being less aggressive, more emotional, and less independent, were seen as less healthy. Virtually no attention was directed toward the effects of the societal environment on women. Feminists thus came to view traditional

psychotherapy as an agent of social control, reinforcing traditional sex roles and traditional values and devaluing women.

Historical Psychoanalytic Influence

Freudian psychosexual theory and practice—the largest influence on psychotherapeutic knowledge—gave therapists a largely antifeminine orientation (Benjamin, 2004; Gilligan, 1982a; Else-Quest & Hyde, 2018). Freud espoused that biological drives influence a person's psychological and personality development. In his view, the superiority of men was largely derived from the possession of a penis. Penis envy purportedly led to feminine aggression. According to Freud, limitations of women inherent in their biology ("anatomy is destiny") included women's innate dependency, passivity, and masochism, which were required for their primary fulfilling role, successful motherhood. Compared with men, women were viewed as more narcissistic, more prone to jealousy, and possessing a weaker sense of justice (Strachey, 1961). Women were labeled "frigid" if they were incapable of mature (phallocentric) vaginal orgasm versus clitoral orgasm. The studies of Masters and Johnson proved this concept incorrect (Kaschak, 1981).

Feminist Views on Psychoanalysis

Critics condemned Freud for deriding women who displayed qualities that would be lauded in men, primarily boldness and independence (Grosskurth, 1991). Many women also voiced resentment toward the implied foreclosure on women's opportunities.

- Karen Horney (1920s and 1930s) proposed that if penis envy existed, it was because the penis symbolized the social and political power of men (Else-Quest & Hyde, 2018).
- Simone de Beauvoir (*The Second Sex*, 1949) caused a great deal of controversy by challenging the ideation of biological and psychological determination of roles for women.
- Betty Friedan (*The Feminine Mystique*, 1963) attempted to broaden society's narrow role of women's place being in the home.
- Kate Millet (*Sexual Politics*, 1969) continued to scorn Freud for upholding the male body as the norm and questioned the validity of Freud's concept of female fear of castration while ignoring issues such as rape.
- Jessica Benjamin (*The Shadow of the Other*, 1998) argued that Freud's dichotomous view of passivity (feminine) versus activity (masculine) presents a false choice, leaves no room for coexistence of feminine and masculine traits within individuals, and devalues the strength of femininity.

Adult Developmental Theories

Although developmental changes during childhood and adolescence have been studied, relatively little attention has been paid to the adult years (Levinson, 1986). The study of women's development to this day remains in its infancy, and the climate exists for an interdisciplinary approach to the study of human development.

Erikson's Stages of Psychosocial Development (1950s to 1960s)

One of the earliest contributors to the study of adult development, Erikson (1950, 1968) suggested the normalcy and necessity of growth and change during adult years and not just in childhood. His theories, grounded in conceptions of the life cycle and the life course, addressed stages in ego development. According to Erikson,

- Each stage is primary at a particular age level, or segment of the life cycle, from infancy to old age.
- If a task that is appropriate to a given phase of life is not resolved, then development in subsequent phases of life may be impaired.
- A patterned sequence of stages occurs, each with appropriate physical, emotional, and cognitive tasks.
- A person who successfully passes through each stage eventually attains ego integrity, which is associated with high self-esteem and a positive outlook on life.
- A major difference for a woman is that her identity is enmeshed in a married state, wherein the task of her mate is to provide her with an adult identity, a necessary step in her mature integration of personality.

Erikson's eight stages of development, composed of bipolar tasks at various stages of life, include trust versus mistrust (infancy), autonomy versus shame and doubt (early childhood), initiative versus guilt (preschool age), industry versus inferiority (school age), identity versus identity diffusion (adolescence), intimacy versus isolation or self-absorption (young adulthood), generativity versus stagnation (middle adulthood), and integrity versus despair and disdain (late adulthood).

Erikson takes into account how the biopsychosocial environment and culture impact development of the individual (Hoare, 2005). Slater (2003) further developed Erikson's stage of middle adulthood to illustrate how the stages before and after generativity versus stagnation can be operationalized within that stage. That is, trust versus mistrust reveals itself as inclusivity versus exclusivity,

autonomy versus shame and doubt becomes pride versus embarrassment, initiative versus guilt changes to responsibility versus ambivalence, industry versus inferiority is career productivity versus inadequacy, identity versus identity diffusion appears as parenthood versus self-absorption, intimacy versus isolation becomes being needed versus alienation, and finally, ego integrity versus despair is honesty versus denial.

The economic climate of the Great Recession, which began in 2007, posed many challenges in Erikson's developmental pathway. Loss of employment may have caused feelings of embarrassment and inadequacy for women or their spouses. Adding the challenges of caring for children and possibly elderly parents to the mix, as done by many women in the "sandwich generation" (Pierret, 2006), very likely further increased the potential for difficulties in successful completion of Erikson's developmental tasks. Since the Opioid Epidemic, which reached epidemic levels near the mid-2010s, many older women are now finding themselves parenting their grandchildren, thus impacting development by moving them back to middle adulthood roles. Utilizing Slater's (2003) adult operationalization of Erikson's categories may be helpful in reaching an understanding of how growth and development have been affected by these women.

Levinson's Model of Adult Development (1970s to 1990s)

Levinson proposed a single human life cycle through which both men and women evolve with variation existing related to gender, class, race, culture, historical epoch, specific circumstances, and genetics (Levinson, 1996). Levinson expanded on Erikson's notion of development and characterized each segment of adulthood in terms of intrinsic tasks along with transition crises that involve a reassessment of one's life (Erikson, 1950; Levinson, 1978, 1996). Adult development is seen as an evolving process of mutual interaction between self and the world, of which family and work are central components. Career choice and work are paramount in terms of goals, social roles, ethical standards and values, and development of self-concept. The assumption of a desire for self-actualization is similar for men and women with self-actualization requiring psychological and realistic changes in controllable measures.

Gender splitting is a central concept of Levinson's model. Within the model a sharp division between feminine and masculine permeates every aspect of human life from cultural to the individual. However, perhaps foreshadowing the women's movement of the 21st century, Levinson (1996) described the early stages of a vast historical transition where traditional patterns are eroding, but satisfactory new ones have not been discovered and legitimized. Levinson's stages are as follows.

EARLY ADULT TRANSITION (AGES 17 TO 22) The shaky start toward maturity involves taking new steps in individuation. Choices are made concerning career, lifestyle, and modification of existing family and social relationships. This is an era of greatest energy and abundance—and of greatest contradiction and stress.

ENTERING ADULT WORLD (AGES 22 TO 28) Through the establishment of an independent living situation, exploration, and commitment to adult roles, the 20s reflect structure building.

AGE 30 TRANSITION (AGES 28 TO 33) During the transition period, the sense of being young, especially in terms of options, is given up. Current lifestyles, values, family situations, and career choices are evaluated. Biologically, the 20s and 30s are the peak years of life.

SETTLING DOWN (AGES 33 TO 40) Affirming personal integrity, realizing oneself as a full-fledged adult, and goal achievement are characteristics of this period.

MIDLIFE TRANSITION (AGES 40 TO 45) Lifestyle is critically examined, and the need arises to recognize time limitations for goal achievement. Polarities, including young–old and destruction–creation, are integrated. Levinson believed that the character of living always changes appreciably between early and middle adulthood.

ENTERING MIDDLE ADULTHOOD (AGES 45 TO 50) Undergoing restabilization after midlife transition, individuals in middle adulthood have biological capacities below earlier years but normally are still sufficiently fit for energetic, personally satisfying, and socially valuable lives.

AGE 50 TRANSITION (AGES 50 TO 55) Once more, lifestyle and major goals are reevaluated.

MIDDLE ADULTHOOD CULMINATION (AGES 55 TO 60) Work continues toward achieving life goals and contributing to society.

LATE ADULTHOOD (AGES 60 AND ABOVE) AND LATE ADULT TRANSITION (AGES 60 TO 65) Although the character of one's life is fundamentally altered as a result of biological, psychological, and social changes, the individual recognizes that this period can be distinctive and fulfilling.

Mitchell (2009) proposed that Levinson's developmental theory can be well utilized in counseling women who are seeking help during stressful times in their lives. In order to do this for older women, Mitchell has further developed the theory into the periods from 60 to 80 and 80 onward. These later periods were never fully developed by Levinson. Late adulthood is the period from 60 to 80, and old age is the term proposed for the developmental period from 80 onward. As during the transitions in other stages of life in Levinson's theory, during the transition to late

adulthood, lifestyle and goals are reevaluated. Reflection on life's accomplishments along with a freedom to pursue an interest that was set aside because of other life responsibilities, such as childrearing and career development in the previous stage, can now occur. Spirituality, introspection, and new awareness of self arise (Levine, 2005; Mitchell, 2009). A woman in late adulthood may also find expression of herself in her home. The period from 80 onward is less fully developed by Mitchell, but roughly consists of an active life review and a passing of the baton to younger generations.

Views on Women's Development

Women's Contributions

Throughout history, women's influence has been less acknowledged in many areas, including art, literature, social sciences, and psychological research. Even though many women have devoted their lives to supporting the development of others, their development experiences are still essentially untold. Women's life experiences and viewpoints may indeed be different from men's as a result of complex factors such as social status, power, and reproductive biology (Gilligan, 1982a, 2002; Miller, 1986). Indeed, the lives of women make up a complex web of economic, psychological, and social contradictions. Opportunities in one area have been linked to constraints in others so that choices in one can have unexpected consequences (or benefits) many years later in another (Coogan & Chen, 2007; Orenstein, 2000). Hence Sandberg's (2013) recommendation for the modern workplace to adapt to the multitude of roles women fulfill while advising women to "lean in" to career choices and not be held hostage to old expectations of work over family and inability take a hiatus from a career ladder. Adapting the workplace, for example, flexible hours, also benefits men in the workplace by allowing for family over work at times.

GILLIGAN'S THEORY OF MORAL DEVELOPMENT Gilligan (1982a), a clinical psychologist, traced women's voices as she studied the development of morality. She found that existing psychological accounts failed to describe the progression of relationships toward a maturity of interdependence or trace the evolution of the capacity for responsible care. Gilligan (1982b) challenged Freud, Piaget, and Kohlberg, who studied boys and men and then assumed that women's ability to make moral judgments was inferior. Gilligan's (1982a) work asserts:

- Women have learned, from their early socialization, to place priority on responsibility toward others in important relationships (the ethics of care) rather than on individual welfare and concerns. Identity and intimacy are not separate stages of development for women.
- When faced with a dilemma, women are interested in understanding individual circumstances and in obtaining the best possible solution for all concerned, rather than using more abstract universal justice principles employed by men.
- The standard of moral judgment that women use for self-assessment also has to do with relationships: the ability to nurture, to care for others, and to bear responsibility.
- Women's differing modes of moral reasoning lead to different forms of self-definition and different views of relationships.

BARDWICK'S MODEL OF HUMAN DEVELOPMENT Bardwick's model addresses women's adult development while incorporating much of Levinson's model of adult maturation. Bardwick (1980) maintains that psychological growth and change are intertwined and never cease. Moreover, the goals and values of one's life reflect changing societal and cultural values. The transition from one developmental stage to the next includes a process of self-evaluation. For women, transitions to new values and lifestyles are likely to be more extreme and more emotionally volatile than in previous generations, as options provided to women become more numerous.

Bardwick defines the self in terms of dependent, interdependent, and egocentric mental stances. A woman may maintain a *dependent* sense of self, which is basically relational, or move toward a more *interdependent* stance, in which a sense of self exists simultaneously with a keen awareness of being a contributing and receiving member of an affectional relationship. Bardwick, however, contends that for a woman, developing a permanent *egocentric* stance is rare, because socialization of women in our society and the definition of femininity tend much more toward an interdependent or dependent sense of self.

New Psychology of Women

EQUALITY In 1986, new psychology of women was proposed by Miller based on the observation that caring for others is valued less in our society than individuation and individual achievement, leading to women's concern with relationships often being viewed as a weakness. Individuation and individual achievement remain greatly valued in our society. The need for social equality is reflected in problems that arise when affiliation and relationships are molded by domination and subordination. Miller advised that a new language in psychology should

describe the structuring of women's sense of self, that is, the need to make and then maintain relationships. Caring and connection must be separated from the resulting inequality and oppression. In decades past, women judged themselves regarding their ability to care, so much so that professional and academic endeavors had the potential to be seen as jeopardizing their own sense of themselves (Gilligan, 1982a). Now, as women have increased their presence in many professional fields, their healthy sense of self is generally enhanced by such endeavors (Else-Quest & Hyde, 2018; Sandberg, 2013). However, personal conflict may still arise when women have to choose between achievement and caring, especially if being successful is at the expense of another's failure (Sandberg, 2013).

VALUING SELF The psychology of women has been seen as distinct in relationships of temporary and permanent inequality (Gilligan, 1982b). Women remain seen as subordinate in a social position to men, yet at the same time, they are entwined with them in the intimate and intense relationships of adult sexuality and family life. Feminist therapy promotes the individual's recognition of restrictive social binds that have influenced many women, including an overdependence on men for self-esteem and financial, psychological, and social needs. In a small study, Hollis (1998) found that women, but not men, expressed regret and sometimes frustration toward perceived missed opportunities in life (e.g., career) due to confining social roles of wife and mother in decades ranging from the 1920s to the 1960s.

Today's women have many career opportunities open to them, and they are taking full advantage of such opportunities often by delaying childbearing in order to develop their career (Else-Quest & Hyde, 2018; Sandberg, 2013; Shulman, 2006). Women traditionally have taken care of men, and men have tended to assume or devalue that care (Coogan & Chen, 2007; Gilligan, 1982a). More and more, men have begun to take on these caregiving roles, thus increasing their understanding of the value of such roles (Shulman, 2006). Women's psychology has reflected and continued to reflect both sides of relationships of interdependence.

EMPOWERMENT Despite cracks in the glass ceiling, the ceiling does continue to exist with women representing less than 5 percent of CEOs for Fortune 500 companies—this is a decrease from 2017 when women held near 6 percent of these positions (Zarya, 2018). Miller (1986) maintained that women need power to advance their own development and to maintain an identity characterized by self-determination and a diminished need for continuous approval. To this day, too often women find their lives being dominated by prevalent societal values. Often, women and men experience enormous differences in access to power and control of resources, and for women, a stance of less power may result in an emphasis on relatedness to others and compassion (Sandberg, 2013). Powerlessness, or learned helplessness, in femininity, has been thought to be exhibited in relationships of battering and more subtly as depression (Friedan, 1993; Kaschak, 1981; Tolman, Impett, Tracy, & Michael, 2006). Perhaps as more emphasis is given to female perspectives, society can move toward a focus of power-with rather than power-over, which would help facilitate a more peaceful environment on a larger scale (Lewis & Bernstein, 1996). Mutuality in relationships may help foster efforts toward elimination of many social maladies such as violence against women and discrimination based on ethnicity and gender. Women could take significant steps toward healthier lives as stressors compromising many intimate affiliations diminish.

Women's strength is reflected in greater self-sufficiency, assertiveness, and self-knowledge (Levine, 2005). Consider the example of violence against women. Formerly, issues such as rape, battering of women, child sexual abuse, and incest were largely ignored, or their existence disbelieved before the collected efforts of enraged women brought these issues into the public policy arena (Miller, 1986). These issues were brought to the forefront again with the #MeToo movement (Johnson & Hawbaker, 2018). Women have effected changes in medical/gynecologic care and no longer accept care that is limited to their reproductive organs to the exclusion of concerns such as cardiac disease or the discounting of entities like premenstrual syndrome, as was the case in the not-so-distant past.

A DIFFERENT STARTING POINT IN DEFINING WOMEN'S DEVELOPMENT/TEND AND BEFRIEND Women's development was often described as related to their attachment to others. The cornerstone of a new psychology of women is the appreciation of the power of relationship and connection in women's lives (Lewis & Bernstein, 1996). In this psychology women's sense of self, as well as their perceived strength, is considered as based on the ability to form affiliations and relationships (Gilligan, 1982a; Lewis & Bernstein, 1996). Although experience of attachment to others provides women with more opportunities for interpersonal pleasure, there can be concurrent fear of separation. That is, women may perceive the threat of a disrupted affiliation as a total loss of self.

Along a similar vein, findings of a landmark study (Taylor et al., 2000) strengthen theory regarding women's sense of the value of friendship and affiliation. Women's stress responses have developed to enhance the survival of themselves and their offspring. Females create, maintain, and utilize social groups (befriend), particularly their female friends, to manage stressful situations, building on the attachment–caregiving process. Women also nurture their offspring (tend), while in turn reducing neuroendocrine responses that may compromise their health.

The tend-and-befriend behavior is thought to be oxytocin mediated, moderated by sex hormones and endogenous opioid peptide mechanisms. It is well known that animals as well as humans derive health benefits from social contact. Positive physical contact such as touching or hugging is known to release oxytocin, which further counters stress and produces a calming effect. The fact that men and women respond differently to stress has significant implication for health. Women need time to partake of each other's nurturance and healing talk (Levine, 2005).

The Ways That Women Know

In the 1980s, intellectual development of women became a topic of study (Belenky & Field, 1985; Belenky, Clinchy, Goldberger, & Tarule, 1997). Inability of women to gain a voice may be seen as reflective of being powerless, subjugated, and inadequate. More women than men pose questions, listen to others, and refrain from speaking out (Jack, 1991). For example, a mother may refrain from sharing ideas too quickly with her child in order to foster the child's own ability to form ideas. This mode of discourse, similar to Socratic thinking, was thought to serve as a model for promoting development (Rosenblatt, 1995).

Women today are in general more assertive than in the 1980s. However, the findings of Belenky and colleagues (1985; 1997) may still be reflective of an approach to thinking and communication by women that is different than the approach taken by men and not in fact reflective of lack of power. Else-Quest and Hyde (2018) maintains that such gender differences in communication style are small when they exist and possibly not interrupting reflects more politeness in women's communication tendencies rather than a lack of power.

Women's Issues and Conflicting Values

VALUE CHANGES The value changes that occurred most dramatically during the 1970s redefined and expanded choices for women in their roles related to work and family (Bardwick, 1980). Many women now address both modern and traditional patterns of lifestyle in their decision making. Facing conflicting life choices, societal norms, and changing economies, women continue to grapple with cultural ambiguity and personal uncertainty. Traditional norms regarding femininity prevail in many instances, even for women in less traditional roles. For example, despite reduced gender separation of work and family roles, couples still tend to make decisions concerning geographical locations and timing of major family events according to the husband's career needs. On the other hand, women are choosing to have children later in life (Pew Research Center, January 2018). Also, with a lower marriage rate, later marriage, divorce, and widowhood, today's women spend more of their lives alone than in any previous era (Orenstein, 2000; Trimberger, 2005).

CULTURAL AMBIGUITY AND PERSONAL UNCERTAINTY Although choices women face can create ambiguity and uncertainty, the freedom of choice is perhaps less frustrating than the restrictions of the past (Bardwick, 1980). Often, however, change may be an illusion for women; the reality of the social foundation of power still leans strongly toward enhanced status for traditional feminine values (Mednick, 1989; Orenstein, 2000). Modern women also face significant challenges to have it all because the social changes necessary to allow for ample choices have not been resolved. Although passage of the Lilly Ledbetter law regarding pay equity has been helpful, barriers still exist to equitable pay, adequate childcare, and breaking through old boy networks. Women may have adequate drive to achieve; however, they may feel limited to a level of achievement that society deems appropriate for their gender or, some would argue, their social status. Competition may be viewed as contrary to the traditional feminine ideal and may lead to social rejection. Although women and men tend to be compared favorably in neutral situations, women tend to have less internal hope for success in more competitive situations (Orenstein, 2000; Sandberg, 2013). Economic and logistical demands (e.g., childcare and eldercare) often find women slipping into more traditional roles (Hewlett, 2007; Orenstein, 2000; Sandberg, 2013).

GENDER ISSUES Levinson (1986, 1996) maintained that the timing of developmental periods and tasks is similar for women and men, while giving weight to how men's and women's lives are affected by gender-splitting issues, creating in human life a rigid division between male and female, masculine and feminine. Though the concept that women and men have lived in different social worlds with very different social roles, identities, and psychological attributes persists, the dramatic socioeconomic changes of the 2000s created constrictions for men, which have increased the opportunities for both genders to move into the other's sphere or social role.

The historical process within postindustrial conditions has included a gender revolution. Many social changes reduced women's involvement in the family and increased involvement in outside work. Some of these changes include (1) the rise in human longevity; (2) the decreasing demand for women's work in the family, concomitant with smaller family size (contraception options); and (3) the growing incidence of divorce. Nearly 57 percent of all U.S. women are now in the civilian labor force—part-time or full-time, paid or volunteer, continuously or sporadically (Bureau of Labor Statistics [BLS], 2017).

Other developmental themes hold that gender differences exist in movement through developmental periods (Bardwick, 1980; Caffarella & Olson, 1993; Else-Quest & Hyde, 2018; Mercer, Nichols, & Doyle, 1989). Women's self-esteem and identity have also been described as dependent more heavily on validation by others (Bardwick, 1980).

LIFE EVENTS, OPTIONS, AND STRESS Along with more options, women may also experience discontent and stress, as it may be less clear what is expected of them. Stressors occur in traditional homemaker choices, in career options, in childcare, in eldercare, and in attempts to combine or juggle it all. Also, women may experience developmental periods at later ages and in more irregular sequences, while focusing on different aspects of their life structure (Mercer et al., 1989; Stassen Berger, 2016). Moreover, developmental tasks may be dealt with very differently at different times, as women themselves may change psychologically over time.

Major Periods and Tasks: The Women's Perspective

A body of knowledge on women's development has been presented and continues to evolve, although it is not as well formed as some other developmental areas. Issues in women's development are discussed in this section, using Levinson's framework, where feasible, and other authors' contributions that have remained valid over time, including those of Bardwick (1980). The novice phase of early adulthood—individuals as apprentice adults, ages 17 to 33—encompasses several large tasks, including forming a dream, a mentor relationship, an occupation, and an enduring relationship. Women and men may have significant differences in accomplishing these tasks (Roberts & Newton, 1987). Timing of major life events is not as important as understanding the importance of forming the life structure. A discussion of key transition periods follows. Newer data is added where relevant to the discussion.

Early Adult Transition/Emerging Adulthood (Ages 17 to 22 or 25)

Major tasks for women in this period include value assessment; goal setting for education and work; formation of important peer relationships that focus on sex, love, and commitment; formation of relationships to occupation; and separation from parents. However, today's emerging adults are more likely to receive help from their parents for educational expenses or rent (Pew Research Center, 2007). Pipher (1994) described young women's need to reject the person they most closely identify with as they grow up. They have a tremendous fear of becoming like their mothers, and yet, in a way if a young woman hates her mother, she hates herself. Strong girls may manage to stay close to their families and maintain some family loyalty, usually having someone in the family whom they love and trust. The task is not to end the relationship, but rather to reject certain aspects (e.g., submission and defiance), sustain more valued aspects, and build in new qualities such as mutual respect (Levinson, 1996). Individuation may be reflected in great differences in values between parents and young adults in areas such as politics and career choices. Values may more strongly reflect identification with peer groups, however, than true individuation or autonomy. Pipher noted girls may stay in adolescence longer now, taking about 12 years to make it through the crucible (age 22). Economics may be one reason; however, the home may seem a haven in an increasingly dangerous world.

A major conflict exists between making commitments and avoiding them to keep options open (Erikson, 1968). Commitments are more easily made if one's peers are doing so. The early adult is often egocentric as she progresses through rapid emotional and physical changes.

GENDER IDENTITY A crucial task is to internalize a sense of gender, which encompasses a sense of one's body in relation to sexuality. A great deal of psychological fluidity exists with some sense of egocentrism. Today's emerging adult women have been found to identify with more masculine traits of self-reliance, assertiveness, and ambition than their predecessors who came of age at the dawning of the second wave of the women's movement. Their identification with feminine traits, however, remains unchanged (Strough, Leszczynski, Neely, Flinn, & Margrett, 2007). Therefore, masculine traits have been added to gender identity for the emerging adult woman, but not at the diminution of feminine traits. The need to form relationships continues to dominate. For example, a woman may fear that her ambitions will cost a relationship. A conflict exists between fulfillment of egocentric, self-reliant, and interpersonal/dependent priorities as the early adult tries to define the sense of self.

IDENTITY AND ADULT COMMITMENTS Erikson (1968) describes the male adolescent as developing an autonomous, initiating, and industrious self through the forging of an identity based on the ideal image—the ability to support and justify adult commitments. He describes the female adolescent as holding her identity in abeyance while preparing to attract the man she will marry and by whose status she will be defined. Such attitudes predominated well into the 1960s. Pipher (1994) describes our culture as look obsessed. Body objectification by female adolescents has been associated with increased risks for

problems with self-esteem and depression (Tolman et al., 2006). Despite advances of feminism, escalating levels of sexism and violence against women and girls exist. Sexual harassment can begin in elementary school. Girls are often undervalued for their intelligence and if so face problems related to low self-esteem. Girls remain prey to depression/suicide attempts and eating disorders as well as addictions now more than ever (Orenstein, 2011; 2018). Media images of thin bodies as the ideal may play a role in this (Grabe, Ward, & Hyde, 2008).

IDENTITY AND INTIMACY For men, identity precedes intimacy and generativity in the traditional view of the optimum cycle of human separation and attachment. For women, these tasks have been seen as fused, developing together as the woman comes to know herself as she is known, primarily through her relationships with others (Gilligan, 1982a). Vocation or career identity is often in an exploration phase with young women of today either changing jobs frequently or if in college taking time to settle on a major (Stassen Berger, 2016). Many emerging adults satisfy their needs for intimacy outside of marriage with friendships, family, or lovers. Cohabitation is much more common than marriage for this age group (Else-Quest & Hyde, 2018; Stassen Berger, 2016).

FACTORS INFLUENCING IDENTITY For women, identity and intimacy are developed at the same time (Gilligan, 1982a). Identity development in women is influenced by communion, connection, relation (to friends and all significant others), embeddedness, spirituality, and affiliation (Josselson, 1987). Also, to keep their true selves and grow into healthy adults, girls need the above as well as meaningful work, respect, challenges, and physical and psychological safety (Pipher, 1994). Online social media began to play a role in identity development with the debut of Facebook in 2004. Research regarding the impact of social media sites on self-esteem has to date revealed both positive and negative outcomes for both emerging adult women and men (Gonzales & Hancock, 2011; Mehdizadeh, 2010; Rosen, 2011).

IDENTITY AND PARENTHOOD Motherhood is perceived by some as central to women's sense of femininity, far more so than marriage (Orenstein, 2000). Whereas the choice to remain childless is being intentionally made by many at this stage of life, only 39 percent of women have had a child by age 24 (Pew Research Center, January 2018), single parenthood is chosen by others (Maier, 2007; Walker, 2011). Safer (1996), a psychologist, found most women see children as a source of fulfillment and not as an obstacle to it. Large studies show childless couples can be as happy as parents who have good relationships with their children and certainly happier than those whose relationships have distanced.

Entry Life Structure for Early Adulthood (Ages 22 or 25 to 28)

Life structures for women tend to be less stable than those for men, essentially because of more diverse concerns involving marriage, motherhood, and career. The primary tasks of this period are to build and maintain a first adult life structure and to enrich one's life within that structure.

Women, especially working women or those with difficult infants, experience appreciably more change than men if in the transition to parenthood (McBride, 1990; Sandberg, 2013). They also experience the contagion of stress as they internalize the distress experienced by those to whom they are closest, particularly family members. During this period, however, if work serves as a visible marker of achievement, it may lessen stress. Indeed, women with multiple roles may be the most well adjusted.

Age 30 Transition and the Settling Down Period of Early Adulthood (Ages 28 to 39)

Both sexes in settling down must give up the idea that involvements are tentative. Priorities of the 20s may be reversed; choices and their consequences may be reassessed, and options regarding marriage and especially childbearing may be considered more pressing or not to exist much longer at the later stages of early adulthood (Hewlett, 2002; Levinson, 1986). A bewildering discovery occurring at about age 30 is that the life one has arduously constructed has major imperfections and that there is still some growing up to do (Levinson, 1996).

- *Women's Success.* In contrast to men, few women would define becoming one's own woman primarily through success in their work (Bardwick, 1980). Those who are successful in their careers may be anxious about their femininity unless they are also involved in significant relationships and have experienced motherhood. Women previously sacrificed success in careers and financial status as they compromised to maintain relationships while slipping into traditional roles. However, this sacrificial choice is now being addressed by changes in the corporate world that are designed to make reentry into the workforce easier and, hopefully, this compromise obsolete (Hewlett, 2007; Sandberg, 2013). A woman's success includes becoming more fully adult by dealing with the child in herself and with the old cultural assumption that an adult female is still a girl (Levinson, 1996). Sadness and depression may develop from self-silencing if women suppress their authentic selves and make repeated compromises (Jack, 1991).

- *Prolonged Transition.* Women in their 30s are likely to experience a more prolonged and profound transition period than men, perhaps most importantly linked to the age limits for childbearing (the biological clock). Technology may permit some women to become pregnant well beyond their earlier expectations; however, these expectations may be unrealistic (Walker, 2011). During this period of evaluation and reappraisal (ages 28 to 33), married women may demand that husbands recognize and accommodate their aspirations and interests outside of the home (Orenstein, 2000; Roberts & Newton, 1987).

- *Career Versus Family.* Women reappraise the relative importance of career and family, often adding the missing component rather than reversing priorities (e.g., a mother may begin a career). A second guessing of priorities is frequently present. Women may attempt to lead a life in which they do it all (Hewlett, 2007; Sandberg, 2013). The mental health stressors of women's multiple roles may be influenced more by marital factors than by work factors. Work often buffers some marital stress, but parenthood exacerbates occupational stress, especially if responsibilities are not shared in the home (McBride, 1990).

  Hewlett (2002) warned that when women embrace a male model of single-minded career focus, they may encounter a "creeping nonchoice" in future motherhood. Unfortunately, many women do not realize that after age 30 their chances of becoming pregnant begin to decline. Women in the past feared that by slowing down their careers to have children, they would run the risk of never catching up. As mentioned previously, this fear has a realistic historical basis, but recommendations for greater flexibility for workforce reentry have been brought forward (Hewlett, 2007; Sandberg, 2013). However, time to form meaningful relationships can be limited by work factors when a focus on productivity predominates over balance.

  Census data from 2016 shows childlessness for women aged between 40 and 44 is lower by 6 percent from childlessness in this age group a decade ago (Pew Research Center, January 2018). Twenty percent of those of the same age with professional degrees are childless. This is an increase in the fertility rate for professional women as compared to 1994 when the childless rate for professional women was 47 percent. Certainly, many of these women chose not to have children (Maier, 2007; Walker, 2011). However, Hewlett's figures from 2002 showed that 14 percent made this choice, while the others had the choice made for them by delaying attempting to conceive until they became too old to conceive.

- *Multiple Roles.* Having multiple roles may counterbalance some negative effects of a particular role. Thus, the healthiest women and men may be those with multiple roles, including having a career, a spouse, and often children (Barnett & Hyde, 2001). Employment status accounted for most of the variance in psychological well-being for women aged 35–55. Married women with children and high prestige jobs reported the greatest well-being. However, "having it all" may mean "doing it all," and women may experience strain in attempting to fulfill multiple role obligations (Sandberg, 2013). Women's ability to cope with the stresses has been associated with having a high income and job satisfaction, marrying later, and arranging time for family activities (McBride, 1990).

- *American Values and Women's Sexuality.* The U.S. culture values youth and beauty, and often by age 35, a woman is no longer considered young. However, as the percentage of the population in the United States over the age of 30 has begun to increase and midlife women have begun to see themselves as more vibrant (Shulman, 2006), a decreased emphasis on these cultural values of youth and beauty may be emerging.

- *Confusing Choices.* Women in their 30s and 40s have grown up with mothers and other role models who have experienced the growing influence of feminist thinking and more egalitarian life patterns. The demands and needs of motherhood in this half-changed world are extremely complicated whether a woman works full-time or part-time, or stays at home.

- *Readjustment in the 30s.* Demographically, many women now in their 30s have never married. The percentage of never-married women between the ages of 25 and 34 was around 46 in 2009 (Mather & Lavery, 2010). That does not mean that these women are childless because close to 40 percent of births are to single women. However, the percentage of nonmarital births in the United States has been declining since peaking in 2008 (Centers for Disease Control and Prevention [CDC], 2017). As married women reach ages 35 to 40, their husbands' tremendous involvement in their careers and children's decreasing dependence on them may provide the opportunity for personal change. Women may return to work or school or look for other relationships in the community.

- *Stress.* Stress is inherent in the reality or the illusion of choice. Some women may sacrifice personal relationships to achieve career success; others may be doing it all with very little support from their partners. Partners' expectations of each other in their relationship are not always clear. For married women, responsibilities outside the home—community and career involvement—may help them become less dependent economically, socially, and psychologically. Most women in this age group tend toward interdependence.

Midlife Transition and Middle Adulthood (Ages 39 to 60)

An appreciable change in the character of living occurs between early and middle adulthood. The main tasks of entering middle adulthood are making crucial choices, giving those choices meaning and commitment, and building a life structure around them (Levinson, 1986).

MIDLIFE TRANSITIONS

- *Career and Family.* Women and men become more autonomous as they age, but women gain in larger increments (Levine, 2005). Becoming involved in a career after 40 can be an opportunity for real beginnings, but it also can be frightening. This may be a time for women to generate new values internally, reflecting who they are rather than what they do.

  Over past decades, middle adulthood women tended to face loss much earlier than men of this age group if their primary role in life was that of mother, their secondary role that of homemaker, and their tertiary role that of sexual partner. As family becomes less central to women's lives, other sources of satisfaction can become significant. Often, the marital relationship has to be modified as women strive to create better lives for themselves. Accomplishments in careers may not bring the same satisfaction or sense of accomplishment as in earlier years (Belenky et al., 1986; Orenstein, 2000).

  Women in midlife may find themselves caring for their parents as well as their own children or grandchildren. "The sandwich generation" is a term that refers to women fulfilling such roles in this age group. Depression, anxiety, and fatigue may result as women may neglect their own needs (Murray & Bachman, 2000; Pierret, 2006).
- *Readjustment in the 40s to 50s.* Assessment for both men and women may have a sense of urgency as they wish to accomplish their life goals. Those who do not assess their lives at this point may feel frightened and unable to make changes in their lifestyles or careers. Men assess what they receive and what they give to work, family, friends, and community as they reach the symbolically powerful age of 40 (Levinson, 1978, 1986). Their established autonomy now allows greater compassion, more reflection, less tyranny by inner conflicts and external demands, and more genuine love of self and others.

  By the end of middle adulthood, problems may include declining health, aging or death of parents, spousal death, and stagnation at work with no viable options. Although the relationship with one's spouse may only be comfortable, the option of ending it means losing crucial roots. Nonetheless, divorce has increased for both men and women in their 40s being at 21 per 1,000 in 2015 as compared to 18 per 1,000 in 1990. Divorce rates for those age 50 and older have doubled since 1990 (Stepler, 2017). One may see a partner as a reason for discontent or as someone to blame for perceived losses. A new relationship may be viewed as a way to recoup the feelings and pleasure of youth.
- *American Values and Women's Sexuality.* Although women may feel dismayed over excessive value placed on their appearance, including its damaging impact on young girls, they may also feel invisible as their looks change, and men may not notice them as they did in the past. Use of cosmetic surgery and other methods to look younger remains on the rise (Lachman, 2004). As women reach their 40s, they reach more toward something deeper: an authentic personal voice. At this time, women start viewing their life by how much is left to live (Lachman, 2004; Levine, 2005).
- *Stress.* Losses or adjustments in relationships may cause depression in women beginning the midlife phase; they may experience loneliness as children leave home or they become widowed or divorced. Women, but not men, tend to define their age status in terms of the timing of events within their family; even unmarried career women may discuss middle age in terms of the family they might have had (Orenstein, 2000, Walker, 2011). Women with more complex lives may experience sadness and joy in this time of readjustment as they face losses along with new beginnings. Many more men than women remarry at this age. The past four decades have seen a 40 percent decline in women's remarrying after divorce. They are now more economically independent and may no longer see marriage as their best option (Orenstein, 2000).

MIDDLE ADULTHOOD Although Levinson's studies ended with men and women in their 40s, he believed that a major transition phase occurs from ages 50 to 55. According to Levinson (1978, 1986), a stable period follows from ages 55 to 60, during which rejuvenation in some can result in achieving significant fulfillment and enrichment. This period of fulfillment and enrichment has all but disappeared for many women and men in this age group during the economic uncertainty, high unemployment, and shrinkage of the middle class that began to occur in the United States at the beginning of the 21st century. For men, especially whose connection with others depends largely on their jobs, job loss or forced early retirement may be associated with a loss of prestige and decreased self-esteem. During the Great Recession, women in this

age range may have experienced fewer problems with unemployment and forced retirement than men, similar to what occurred in the Great Depression of the 1930s, when women at times became the only breadwinner in the family (Boehm, 2004). However, women faced and continue to face concerns about job loss, a decrease in wages, loss of health benefits, and whether they will have Social Security (National Economic Council [NEC], 2010). As the economic climate improves, such concerns will hopefully diminish.

- *Readjustment in the 50s to 60s*. The aging process traditionally has been symbolized as retirement for men and menopause for women, although the formerly predominant all negative views regarding menopause have been challenged (Friedan, 1993; Sheehy, 2006). Aging is a gradual process, and changes of aging are adaptive across the life span. During middle age, women may to some extent lose their roles of mother and sex partner, especially through divorce or death. A partner's retirement may force another adaptation. Distancing from parents in the middle years is replaced by establishing a commitment to parents' care, which allows some women who see themselves primarily as homemakers to reestablish that lifestyle.

  Anticipating menopause is often more dreadful than the difficulty experienced with its actual occurrence. Women often feel relief with the loss of menses as well as the loss of tasks associated with rearing young children. The real difficulty may be adjusting to the aging process—a continuum that does not just begin after menses ends. Other changes associated with aging are socially more apparent, such as graying hair and wrinkles. Bifocal glasses and hearing aids may be a threat to self-esteem and a visible admission of aging, which may cause problems in intimate relationships. Physical changes may be a liberating process, allowing women to reclaim lost parts of themselves, reviving connections to family, work, and community and, finally, to a more authentic sense of self (Levine, 2005; Orenstein, 2000). Interestingly, another change that occurs around menopause is a growth spurt of myelination of cells in the hippocampus similar to, but to a lesser extent than, the spurt that occurs in adolescence, possibly promoting further maturation and integration of emotional and cognitive processes in the menopausal woman (Benes, 1998; Levine, 2005). Perhaps the wisdom of aging!
- *American Values and Women's Sexuality*. Societal views of aging women include negative stereotypes such as being inactive, unhealthy, asexual, unattractive, and ineffective—despite the diversity of older women who lead interesting, productive lives. The baby boomers continue to be determined to refute these views (Levine, 2009). Friedan (1993) addressed our denial of the personhood of age, with its definition ensuring the blackout of people over 50 as sexual beings, especially women. Widowed or divorced women may yearn for an intimate, sexual relationship. There may be an intimacy that may be possible only as we age (Levine, 2009). Health care providers need to recognize the diversity among women as they age. Older women receive messages that growing older is a process to be prevented (with facelifts or antiaging facial creams) rather than to be enjoyed. Even professional women view aging as a serious impairment. Discrimination in employment is particularly harmful to women reentering the workforce after their children leave home or when the loss of a spouse decreases their income and security (Hewlett, 2007). Throughout adulthood, women are increasingly threatened by poverty as a result of greater numbers of female-headed households and the continuing disparity in salaries between men and women. Older women are particularly affected by inadequate spousal retirement plans, especially if they have a history of unemployment. As women live longer, they have more opportunity to develop illness, another stress on their finances.
- *Stress.* Women in middle adulthood years may feel the need to change or reassess values or direction at this stage in their lives; others will reject new values, believing themselves incapable of achieving different goals. Women most at risk for psychological dependence are traditional housewives who lack involvement or outside commitments. Interdependence is more likely to occur among older women who have found fulfillment in their traditional roles and who have assumed varied roles, whether through employment or other options. Some older women are egocentric as a result of being widowed, divorced, or displaced homemakers, or have never married.

Young–Old Transition (Ages 60 to 70)

Ages 60 to 65 mark the end of middle life and entry into the late adult transition (Levinson, 1996). Overall, women feel good about themselves and what they are accomplishing as they use time freed by retirement or other life changes to pursue creative activities, community work, and self-development (Mercer et al., 1989). Many older women are beginning to embrace what they can't change regarding their aging bodies and balance this by employing health-promoting exercise to increase vitality (Levine, 2009). Women's presence in the labor force has increased dramatically. In 2016, nearly 16 percent of women over age 65 were working (BLS, 2017). Higher poverty rates exist among older women. Women have substantial involvement in unpaid work, specifically caregiving and home labor,

and suffer from discriminatory retirement policies. When women outlive their husbands, creativity may develop as a response to loss and loneliness, including social and emotional isolation. During their 60s, women are most likely to experience transitions relating to their illness and the illness and death of significant others.

Old-Old Adult and Oldest-Old Adult Women

Women can expect to live well into their 70s and 80s. Ages 76 to 80 may represent a transition toward wisdom as women are challenged to adapt to some changes, including loss of health, friends, and family (Mercer et al., 1989). Women are more likely than men to experience chronic illness in later life. Bodily restrictions may impede social and personal activities leading to lowered self-esteem. The importance of body image may decrease with age as women accept natural changes with aging (Hurd, 2000). A surge of creativity may continue as women find pleasurable ways to enrich their lives. Relationships and affiliation with others remain important for women, and their creativity may take the form of altruistic responses to the needs of others. Successful or creative aging may be associated with maintaining meaningful activities, keeping close relationships with persons of all ages, and remaining flexible and adaptable. Nonconformists who are willing to take risks and who sustain a positive outlook on life perhaps experience the greatest success in aging. Psychological development never ends as long as the individual engages in reality; thus, the potential for growth and change is always present.

Women's Development and Family Theory

Family developmental theory is important to consider when discussing women's development. Family theory takes fully into account how interpersonal relationships with changing structures, roles, and processes impact an individual's growth and development over time. Bioecological theories, such as Bronfenbrenner's Bioecological Systems, or systems theories, such as Family Systems Theory, based on von Bertalanffy's work, have been useful in the development of family assessment tools. Carter and McGoldrick have revised the original work of Duvall and Duvall and Miller's Developmental and Family Life Cycle to better reflect the modern family's stages of development (Kaakinen, Gedaly-Duff, Coehlo, & Hanson, 2018). This updated theory, along with Family Systems Theory, has influenced the continued evolution of Wright and Leahy's Calgary Family Assessment Model (CFAM) (2013) described in Chapter 5. CFAM has been widely used as a tool for family assessment both nationally and internationally. A woman's growth and development cannot be considered in isolation. The inclusion of family assessment with a fluid definition of family is a way to avoid this isolation. Evolution to a more interconnected world demands this broader consideration.

Women and the New Millennium

Despite sexual harassment in the workplace being defined as illegal by Title VII of the Civil Rights Act of 1964, it has remained a problem. Gretchen Carlson (2017) was one of the recent voices regarding how matters of sexual harassment are handled in the workplace. She has advocated for changes in how those who report such harassment are treated as reporting harassment often has its consequences. She is unable to provide details about the harassment she faced because, as part of her settlement, she had to agree to remain silent about her experience. In, *Be Fierce: Stop Harassment and Take Your Power Back*, in addition to describing how victims who speak out can be revictimized, Carlson describes how companies and individuals can use forced arbitration and nondisclosure agreements to silence victims of harassment.

There is a saying, attributed to Mark Twain, "History doesn't repeat itself, but it often rhymes." Like women in the 1960s discovering that problems they experienced were not isolated the outpouring associated with the #MeToo movement has made it clear that sexual harassment is rampant, and victims have much in common. The #MeToo movement has also made it clear that such harassment will no longer be tolerated. True to women's tendency to inclusivity #MeToo has provided a voice for both female and male victims of sexual harassment. Also, perhaps women marching in cities around the world in January of 2017 for women's right to be viewed as individuals to be respected and not viewed as sexual objects to be abused is reflective of the suffragettes who marched for women's right to vote at the turn of the 20th Century. Women in the United States have made many strides since receiving the right to vote in 1920, but as evidenced by continued problems with sexual harassment as one example, still need to advocate for respect and fair treatment under the law. Advocacy for and finally ratification of the ERA, which some women thought was already in force, may help with these endeavors. Passage of the ERA by 2020 may enhance the centennial celebration for the Nineteenth Amendment. So, as the new millennium ends its second decade, women are on the move and reaching for levels of development that improves the lives of all.

References

Anda, R.F., Butchart, A., Felitti, V.J., & Brown, D.W. (2010). Building a framework for global surveillance of the public health implications of adverse childhood experiences. *American Journal of Preventive Medicine, 39*(1), 93–98.

Bardwick, J.M. (1980). The seasons of a woman's life. In D.G. McGuigan (Ed.), *Women's lives: New theory, research, and policy*. Ann Arbor: University of Michigan, Center for Continuing Education of Women.

Barnett, R.C., & Hyde, J.S. (2001). Women, men, work, and family: An expansionist theory. *American Psychologist, 56*(10), 781–796.

Belenky, M.F., & Field, M. (1985). Epistemological development and the politics of talk in family life. *Journal of Education, 167*(3), 9–27.

Belenky, M.F., Clinchy, B., Goldberger, N., & Tarule, J. (1986). *Women's ways of knowing. The development of self, voice, and mind*. New York: Basic Books.

Belenky, M.F., Clinchy, B., Goldberger, N., & Tarule, J. (1997). *Women's ways of knowing: The development of self, voice, and mind*. Tenth Anniversary Edition. New York: Basic Books.

Benes, F.M. (1998). Brain development, VII human brain growth spans decades. *American Journal of Psychiatry, 155*(11), 1480.

Benjamin, J. (1998). *The shadow of the other: Intersubjectivity and gender in psychoanalysis*. New York: Routledge.

Benjamin, J. (2004). Deconstructing femininity: Understanding "passivity" and the daughter position. *Annual of Psychoanalysis, 32*, 45–57.

Boehm, L.K. (2004). Women, impact of the great depression on. In R.S. McElvaine (Ed.), *Encyclopedia of the great -depression*. Farmington Hill, MI: Macmillan Reference USA.

Bureau of Labor Statistics (BLS). (2017). *Women in the labor force: A databook*. Retrieved from https://www.bls.gov/opub/reports/womens-databook/2017/pdf/home.pdf

Caffarella, R.S., & Olson, S.K. (1993). Psychosocial development of women: A critical review of the literature. *Adult -Education Quarterly, 43*(3), 125–151.

Carlson, G. (2017). *Be fierce: Stop harassment and take your power back*. New York: Center Street.

Center for Disease Control and Prevention (CDC). (2017). *Unmarried childbearing*. Retrieved from: https://www.cdc.gov/nchs/fastats/unmarried-childbearing.htm

Coogan, P.A., & Chen, C.P. (2007). Career development and counselling for women: Connecting theories to practice. *Counselling Psychology Quarterly, 20*(2), 191–204.

de Beauvoir, S. (1949). *The second sex*. New York: Random House.

Else-Quest, N.M., & Hyde, J.S. (2018). *The psychology of women and gender: Half the human experience* (9th ed). Thousand Oaks, CA: Sage Publications, Inc.

Erikson, E.H. (1950). *Childhood and society*. New York: Norton.

Erikson, E.H. (1968). *Identity, youth and crises*. New York: Norton.

Friedan, B. (1963). *The feminine mystique*. New York: Norton.

Friedan, B. (1993). *The fountain of age*. New York: Simon & Shuster.

Gilligan, C. (1982a). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.

Gilligan, C. (1982b). New maps of development: New visions of maturity. *American Journal of Orthopsychiatry, 52*(2), 199–212.

Gilligan, C. (2002). *The birth of pleasure*. New York: Alfred A. Knopf.

Gonzales, A.L., & Hancock, J.T. (2011). Mirror, mirror on my Facebook wall: Effects of exposure to Facebook on self-esteem. *Cyberpsychology, Behavior, and Social Networking, 14*(1–2), 79–83.

Grabe, S., Ward, L.M., & Hyde, J.S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin, 134*(3), 460–476.

Grosskurth, P. (1991). The new psychology of women. *New York Review of Books, 38*(17), 25–32.

Hewlett, S.A. (2002). *Creating a life: Professional women and the quest for children*. New York: Talk Miramax Books.

Hewlett, S.A. (2007). *Off-ramps and on-ramps: Keeping talented women on the road to success*. Boston: Harvard Business School Press.

Hoare, C.H. (2005). Erikson's general and adult developmental revisions of Freudian thought: "Outward, forward, upward." *Journal of Adult Development, 12*(1), 19–31.

Hollis, L.A. (1998). Sex comparisons in life satisfaction and psychosocial adjustment scores with an older adult sample: Examining the effect of sex role differences in older cohorts. *Journal of Women and Aging, 10*(3), 59–77.

Hurd, L.C. (2000). Older women's body image and embodied experience: An exploration. *Journal of Women and Aging, 12*(3/4), 77–97.

Jack, D. (1991). *Silencing the self: Women and depression*. Cambridge, MA: Harvard University Press.

Johnson, C.A., & Hawbaker, K.T. (2018, August 20) #MeToo: A timeline of events, *Chicago Tribune*. Retrieved from: http://www.chicagotribune.com/lifestyles/ct-me-too-timeline-20171208-htmlstory.html

Josselson, R. (1987). *Finding herself: Pathways to identity -development in women*. San Francisco: Jossey-Bass.

Kaakinen, J.R., Padgett Coehlo, S.P., Steele, R., & Robinson, M. (2018). *Family health care nursing: Theory, practice and research* (6th ed.). Philadelphia: F. A. Davis Company.

Kaschak, E. (1981). Feminist psychotherapy: The first decade. In S. Cox (Ed.), *Female psychology* (pp. 387–401). New York: St. Martin's Press.

Lachman, M.E. (2004). Development in midlife. *Annual Reviews in Psychology, 55*, 305–331.

Levine, S.B. (2005). *Inventing the rest of our lives: Women in second adulthood*. New York: Viking.

Levine, S.B. (2009). *50 is the new fifty*. New York: Penguin Group.

Levinson, D.J. (1978). *The seasons of a man's life*. New York: Alfred A. Knopf.

Levinson, D.J. (1986). A conception of adult development. *American Psychologist, 41*(1), 3–13.

Levinson, D.J. (1996). *The seasons of a woman's life*. New York: Alfred A. Knopf.

Lewis, J.A., & Bernstein, J. (1996). *Women's health: A relational perspective across the life cycle*. Sudbury, MA: Jones & Bartlett.

Maier, C. (2007). *No kids*. Toronto, Ontario: McClelland & Stewart Ltd.

Mather, M., & Lavery, D. (2010). *In U.S., proportion married at lowest recorded levels*. Retrieved from https://www.prb.org/usmarriagedecline/

McBride, A.B. (1990). Mental health effects of women's multiple roles. *American Psychologist, 45*(3), 381–384.

Mednick, M.T. (1989). On the politics of psychological constructs: Stop the bandwagon, I want to get off. *American Psychologist, 44*(8), 1118–1123.

Mehdizadeh, S. (2010). Self-presentation 2.0: Narcissism and self-esteem on Facebook. *Cyberpsychology, Behavior, and Social Networking, 13*(4), 357–364.

Mercer, R.T., Nichols, E.G., & Doyle, G.C. (1989). *Transitions in a woman's life: Major life events in developmental context*. New York: Springer.

Miller, J.B. (1986). *Toward a new psychology of women* (2nd ed.). Boston: Beacon Press.

Millet, K. (1969). *Sexual politics*. Chicago: University of Illinois Press.

Mitchell, V. (2009). Who am I now? Using life span theories in psychotherapy in late adulthood. *Women & Therapy, 32*, 298–312.

Morgan, R. (1970). *Sisterhood is powerful: An anthology of writings from the women's liberation movement*. New York: Random House.

Murray, J.L., & Bachman, G.E. (2000). Sandwich generation. In B.E. Johnson, C.A. Johnson, J.L. Murray, & B.S. Apgar (Eds.), *Women's health care handbook* (2nd ed.). Philadelphia: Hanley & Belfus, Inc.

National Economic Council (NEC). (2010). *Jobs and economic security for America's women*. Retrieved from http://www.whitehouse.gov/the-press-office/2010/10/21/jobs-and-economic-security-americas-women-report

Norman, S.M., McCluskey-Fawcett, K., & Ashcroft, L. (2002). Older women's development: A comparison of women in their 60s and 80s on a measure of Erikson's developmental tasks. *International Journal of Aging and Human Development, 54*(1), 31–41.

O'Rand, A.M., & Henrette, J.C. (1982). Women at middle age: Development and transitions. In *Annals of the American Academy of Political and Social Sciences*. Beverly Hills, CA: Sage.

Orenstein, P. (2000). *FLUX: Women on sex, work, love, kids and life in a self-changed world*. New York: Anchor Books.

Orenstein, P. (2011). *Cinderella ate my daughter: Dispatches from the front lines of the new girlie girl culture*. New York: Harper Collins.

Orenstein, P. (2018). *Don't call me princess: Essays on girls, women, sex, and life*. New York: Harper.

Pew Research Center. (2007). *A portrait of "generation next": How young people view their lives, futures and politics*. Pew Research Center. Retrieved from http://pewsocialtrends.org/2007/01/09/a-portrait-of-generation-next/

Pew Research Center. (2018). *"They're waiting longer but women more likely to have children now than a decade ago."* Retrieved from: http://www.pewsocialtrends.org/2018/01/18/theyre-waiting-longer-but-u-s-women-today-more-likely-to-have-children-than-a-decade-ago/

Pierret, C.R. (2006, September 3–9). The "sandwich generation": Women caring for parents and children. *Monthly Labor Review*.

Pipher, M. (1994). *Reviving Ophelia: Saving the selves of adolescent girls*. New York: Ballantine Books.

Roberts, P., & Newton, P.M. (1987). Levinsonian studies of women's adult development. *Psychology and Aging, 2*(2), 154–163.

Rosen, L. (2011, September 6). *Poke me: How social networks can both help and harm our kids*. Presentation at American Psychological Association 119th Annual Convention in Washington, DC.

Rosenblatt, E.A. (1995). Emerging concept of women's development: Implications for psychotherapy. *Psychiatric Clinics of North America, 18*(1), 95–106.

Safer, J. (1996). *Beyond motherhood: Choosing a life without children*. New York: Pocket Books.

Sandberg, S. (2013). *Lean In: Women, work, and the will to lead*. New York: Alfred A. Knopf.

Seiden, A.M. (1989). Psychological issues affecting women throughout the life cycle. *Psychiatric Clinics of North America, 12*(1), 1–24.

Sheehy, G. (2006). *Passages: Predictable crises of adult life*. New York: Ballantine Books.

Shulman, L. (2006). Celebrating women: Leaping into the future with energy. *Alive: Canada's Natural Health & Wellness Magazine, 285*, 42–46.

Slater, C.S. (2003). Generativity versus stagnation: An elaboration of Erikson's adult stage of human development. *Journal of Adult Development, 10*(1), 53–65.

Stepler, R. (2017, March). *Lead by baby-boomers, divorce rates climb for America's 50 plus population*. FacTank News in the Numbers, Pew Research Center. Retrieved from: http://www.pewresearch.org/fact-tank/2017/03/09/led-by-baby-boomers-divorce-rates-climb-for-americas-50-population/

Stassen Berger, K. (2016). *Invitation to the life span, 3rd ed*. New York: Worth Publishers.

Strachey, J. (Ed. & Trans.). (1961). *The standard edition of the complete psychological works of Sigmund Freud*. London: Hogarth Press.

Strough, J., Leszczynski, J.P., Neely, T.L., Flinn, J.A., & Margrett, J. (2007). From adolescence to later adulthood: Femininity, masculinity, and androgyny in six age groups. *Sex Roles, 57*, 385–396.

Taylor, S.E., Klein, L.C., Lewis, B.P., Gruenewald, T.L., Gurung, R.A., & Updegraff, J.A. (2000). Biobehavioral responses to stress in females: Tend-and-befriend, not fight-or-flight. *Psychological Review, 107*(3), 411–429.

Tolman, D., Impett, E.A., Tracy, A.J., & Michael, A. (2006). Looking good, sounding good: Femininity ideology and adolescent girls' mental health. *Psychology of Women Quarterly, 30*, 85–95.

Trimberger, E.K. (2005). *The new single woman*. Boston: Beacon Press.

Walker, E.L. (2011). *Complete without kids: An insider's guide to child free living by choice or by chance*. Austin, TX: Greenleaf Book Group Press.

Wright, L., & Leahy, M. (2013). *Nurses and families: A guide to family assessment and intervention* (6th ed.). Philadelphia: F. A. Davis Company.

Zarya, V. (2018, May 21), The share of female CEOs in the Fortune 500 dropped by 25% in 2018. *Fortune*. Retrieved from: http://fortune.com/

Chapter 3

Epidemiology, Diagnostic Methods, and Procedures for Women's Health

Aimee Chism Holland and Diane Marie Schadewald

Outline

Learning Objectives

3.1 Describe epidemiologic trends related to women's health.

3.2 Explain appropriate use of diagnostic methods and procedures commonly used in women's health.

Epidemiology is in large part a collection of methods for finding things out on the basis of scant evidence, and this by its nature is difficult.
(*Alex Broadbent*)

Mortality and Morbidity in U.S. Women

Leading Causes of Mortality in U.S. Women

The average life expectancy for U.S. women increased from 48.3 years in 1900 to 81.1 years in 2016. From 1900 through the late 1970s, the sex gap in life expectancy widened from 2.0 years to 7.8 years. Since its peak in the 1970s, the gap has been narrowing. The difference in life expectancy between the sexes was only 5.0 years in 2007 and remained the same in 2016. The discrepancy in life expectancy between White and Black women continues to be significant: 81.1 years for White women in 2016 compared to 77.9 years for Black women. In 2016, diseases of the heart, cancer, and unintentional injuries led the way as the top three causes of death for both women and men, with chronic lower respiratory diseases in fourth place (National Center for Health Statistics, 2018). However, causes of death do differ for U.S. women, depending on

age and race (see Tables 3–1, 3–2, and 3–3). Heart disease is the leading cause of death for all groups except non-Hispanic Asian/Pacific Islander (A/PI) and Hispanic women. Among these women, cancer is the overall leading cause of death. Cancer is the second leading cause of death among all other women and the number one cause of death among women aged 35 to 65. Among females, brain and other nervous system (ONS) are the leading cause of cancer death before age 20, breast cancer at age 20 to 59, and lung and bronchus cancer at age 60 and older (Siegel, Miller, & Jemal, 2018). Cancer prevalence rates had increased among women aged 45 and older between 1999 and 2009 (Xu et al., 2010). However, cancer prevalence overall has been stable in women for the past few decades. The three most commonly diagnosed types of cancer among women in 2015 were cancers of the lung and bronchus, breast, and colon and rectum, accounting for about 50 percent of estimated cancer cases in women. Breast cancer alone accounts for 30 percent of all new cancer cases among women (Siegel, Miller, & Jemal, 2018). Better screening and diagnostic technologies are partially responsible for this trend. Smoking is a major contributor to cancer deaths and chronic obstructive pulmonary disease (COPD) in women. Women smokers are more than 13 times more likely to die of lung cancer than nonsmoking women (Schane, Ling, & Glantz, 2010). Kidney disease

Table 3–1 Death Rates for U.S. Women by Selected Cause and Age (Per 100,000 Population)

Age	Heart Disease[a]	Cancer[a]	Accidents[a,b]	Cerebv. Dis.[a]	CLRD[a]	Pneumonia[c]	Suicide[a]	Liver Disease[a]	DM[a]	Homicide[a]
10–14	0.6	2.0	2.6	*	0.3	*	1.6	NA	NA	NA
15–19	1.0	2.3	11.5	0.3	0.3	NA	5.1	NA	NA	2.1
20–24	2.0	3.2	19.7	0.4	NA	0.4	5.5	NA	0.5	3.5
25–34	5.6	8.6	23.5	1.1	NA	NA	6.6	1.5	1.5	3.5
35–44	16.2	30.7	25.8	3.9	1.8	NA	8.4	5.2	3.6	2.8
45–54	47.4	100.0	32.6	11.0	10.7	4.0	10.7	14.2	10.6	NA
55–64	112.3	245.4	28.6	24.3	39.9	NA	9.7	19.9	25.9	NA
65–74	266.2	499.8	31.2	66.0	126.3	25.4	NA	NA	55.2	NA
75–84	855.9	906.4	88.5	266.0	331.4	87.2	NA	NA	121.1	NA
85 and older	3,717.6	1,315.8	329.6	1,035.3	641.8	388.2	NA	NA	237.5	NA
Total for women	183.1	172.9	32.9	50.3	50.6	18.5	32.9	NA	22.3	NA
Total for men	211.7	198.3	58.7	36.8	44.8	17.0	21.5	16.2	27.3	NA

Cerebv. Dis.—cerebrovascular diseases
CLRD—chronic lower respiratory diseases
DM—diabetes mellitus
NA—not available
* Figure does not meet standards of reliability or precision
[a] Heron, 2017, Table 1
[b] Unintentional injuries
[c] Pneumonia and influenza

Table 3–2 Differences in Death Rates for U.S. Women by Selected Cause for All Ages and Detailed Race/Hispanic Origin (Per 100,000 Population)

Disease/Cause	White Non-Hispanic Females	Black Females	AI/AN Females	Asian/PI Females	Hispanic Females
Heart disease	233.6	162.8	101.3	63.7	57.8
Cerebrovascular diseases	62.4	45.0	25.9	26.5	18.8
Malignant neoplasms	215.1	154.9	109.0	85.4	64.2
Nephritis	16.8	21.7	13.2	6.7	6.2
Accidents	42.2	22.3	49.0	10.5	13.4
Alzheimer's disease	63.4	27.2	15.1	15.1	15.8
Chronic lower respiratory diseases	71.9	23.4	33.7	8.1	9.1

Based on: Heron, "National Vital Statistics Report, Deaths: Leading Causes for 2015," NVSS 2017

Table 3–3 Leading Causes of Death in U.S. Females According to Detailed Race and Hispanic Origin in 2015

Disease	White	Black	American Indian/Alaskan Native	Asian/Pacific Islander	Hispanic
Heart disease	1	1	2	2	2
Malignant neoplasms	2	2	1	1	1
Cerebrovascular diseases/ stroke	5	3	7	3	3
Chronic lower respiratory diseases	3	6	5	8	7
Alzheimer's disease	4	5	8	4	4
Unintentional injuries	6	7	3	6	6
Diabetes mellitus	7	4	4	5	5
Influenza and pneumonia	8			7	9
Nephritis/nephrotic syndrome/nephrosis	9	8	9	9	10
Septicemia	10	9	10		
Perinatal conditions					
Chronic liver disease			6		8
Essential hypertension and hypertensive renal disease		10		10	

Based on: Centers for Disease Control and Prevention (2015a). *Health Equity, Women's Health, Leading Causes of Death* https://www.cdc.gov/women/lcod/2015/index.htm

became a top 10 cause of death for all U.S. women in 1999. For White women, Alzheimer's disease is the fourth leading cause of death, and pneumonia/influenza remained in the top 10 (National Center for Health Statistics, 2018). Other ethnic variations include the higher prevalence of diabetes among all women other than White women. Although the 20th century, by and large, saw declines in infectious diseases, influenza and pneumonia remain among the top 10 leading causes of death for all ethnic groups. Unintentional injuries also remain in the top 10. These injuries include motor vehicle accidents (MVAs), falls, poisonings, and other injuries that were determined not to be self-inflicted. Suicide is the 15th leading cause of death among women. Four times as many males as females die by suicide. Firearms are the most common method of suicide for both females (33%) and males (56%). Poisoning as a method of suicide is more commonly used by females (31%) than males (10%). (National Institute of Mental Health [NIMH], 2018).

ADOLESCENCE TO YOUNG ADULTHOOD (AGES 15 TO 24) The number of adolescents and young adults in this country has steadily increased since the 1990s. By 2020, 43 million teenagers, up from 35 million in 1990, will live in the United States. Adolescent and young adult women are at the greatest risk for death from accidents and violence. More than one in three unintentional fatal injuries among this age group is from motor vehicle fatalities. In adolescents, alcohol is a major contributing factor. In 2014, 21 percent of adolescent accident fatalities occurred among those who were alcohol impaired (blood alcohol level > 0.08). Alcohol use is associated with lack of use of auto safety restraints, which further increases the risk of fatalities (National Highway Traffic Safety Administration [NHTSA], 2016). Females are less likely to drink and drive and more likely to use safety restraints than their male counterparts. The under-20 age group had the highest proportion of distracted drivers involved in fatal crashes. Sources of distraction include things such as conversation with passengers, use of media, grooming, and eating/drinking. Cell phone usage and texting have been implicated as a contributing factor to MVA deaths and injuries, especially among young people. The National Occupant Protection Use Survey in 2015 found that 4.8 percent of drivers aged 16 to 24 continued to either text message or otherwise manipulate handheld devices as compared to 2.1 percent of drivers over the age of 25 with females more likely than males to use a handheld cell phone. (National Transportation Safety Board, U.S. Department of Transportation, 2016).

Suicide and homicide are the second and third leading causes of death, respectively, among teens aged 15 to 19, after unintentional injury (Childtrends Data Bank, 2015). Homicide is the second most prevalent cause of death among young women between 15 and 24 years of age. However, when rates are examined by ethnicity, suicide as the cause of death is ranked number one for A/PI, and number two for American Indian/Alaskan Native (AI/AN) and White females in this age group (Centers for Disease Control and Prevention [CDC], 2016a). The suicide attempt rate also varies by race/ethnicity: Attempts are

slightly higher for Hispanic students (15%) than for Black non-Hispanic and White non-Hispanic students (10% and 10%, respectively) (Childtrends Data Bank, 2015). Gay, lesbian, and bisexual youth are more likely to attempt suicide as compared to their peers. Suicide is more prevalent in lesbian and bisexual female youth who have been found to be eight times more likely to attempt suicide than heterosexual female youth (Kann et al., 2016). Overall, adolescent males are three times more likely than females to die from suicide, while adolescent females are more likely to attempt suicide. Whereas firearms are the most prevalent method among males, females are more likely to use poisoning (overdose) as a method. The incidence of attempted or completed suicides by hanging has increased in the past several years. Between 2008 and 2015, the rates of suicide for those between 15 and 24 years of age has increased from 6.7/100,000 to 8.7/100,000, indicating a need for providers to be alert to risks and signs of depression and suicidal intentions among young people (Childtrends Data Bank, 2015).

In 2016, females accounted for an estimated 16 percent of adolescents aged 13 to 19 diagnosed with HIV infection, compared with 11 percent of young adult females aged 20 to 24. Heterosexual contact (84% and 86% respectively) followed by injection drug use (6.5% and 10.4% respectively) are the most common routes of transmission of HIV among adolescent females between the ages of 13 to 19 and 20 to 24. African American (AA) youth have a disproportionate burden of HIV, representing over 62 percent of the HIV diagnoses for those between ages 13 and 19 and 53 percent of those between ages 20 and 24 (CDC, 2016b). These data provide guidance regarding preventive measures and screening among young people.

YOUNG ADULTHOOD TO MID-ADULTHOOD (AGES 25 TO 44) In 2015, among females aged 25 to 34, unintentional injury, primarily MVAs, ranked as the number one cause of death, while malignant neoplasms ranked number two (CDC, 2018a). Suicide is the third leading cause of death in females aged 25 to 34 with heart disease being fourth. These causes were reversed for women in the 35 to 44 age group. Heart disease is the third leading cause of death for females in this age group. Suicide remained fourth. It has remained at number four since 1997, when it tied with HIV infection (which was not a major cause of death in 1999). Homicide deaths were fifth and eighth, respectively, in 2015 for 25- to 34-year-olds and 35- to 44-year-olds.

MID-ADULTHOOD TO OLDER ADULTHOOD (AGES 45 TO 64) In mid-adulthood, cancer and heart disease emerge as the primary causes of death among women of all ethnic backgrounds with the exception of AI/AN women ages 45 to 54 for whom chronic liver disease is the second leading cause of death. Overall chronic liver disease is fourth leading cause of death for women ages 45 to 54 and seventh for women ages 55 to 64. Unintentional injuries are third and fourth, respectively, overall among women ages 45 to 54 and women ages 55 to 64. Stroke has moved to the fifth leading cause for women ages 45 to 54 and sixth for women ages 55 to 64. Diabetes is in the top 10 leading causes of death at eighth for ages 45 to 54 and fifth for ages 55 to 64. Among Black women, HIV deaths are the sixth most common cause of death for the 45 to 54 age group, but not in the top 10 most common causes for the 55 to 64 age group (CDC, 2018a).

MATURITY (AGES 65 AND OLDER) Heart disease increases dramatically with age, as do cancer, cerebrovascular diseases, chronic lower respiratory diseases, pneumonia/influenza, and diabetes. Alzheimer's disease ranked as the third or fourth leading cause of death among all ethnic groups except for AI/AN for which it ranked sixth. Chronic lower respiratory diseases, influenza and pneumonia, kidney disease, and diabetes were also important causes of death for older women. Between 2007 and 2016 fall-related deaths increased by 30 percent among people aged 65 and older. Rates of fall-related fractures among older women are more than twice those among men. White women have significantly higher hip fracture rates than Black women. Among older adults (those aged 65 or older), falls are the leading cause of injury death rather than MVAs. Impaired vision, poor balance, and side effects of medication are a few of the risk factors that contribute to increased fall rates in this age group (CDC, 2017a). See Chapter 6 for more information on falls.

DIFFERENCES IN CAUSES OF DEATH FOR WOMEN BY RACE Heart disease and cancer are the number one and two causes of death, respectively, for women regardless of ethnic background or Hispanic origin. For women younger than age 64, cancer or unintentional injuries are the primary cause of death for most age groups of all ethnicities with the exception of deaths from suicide being a leading cause of death for AI/AN females aged 10 to 19 and A/PI females aged 20 to 24 (CDC, 2018a). Deaths from HIV infection are significantly higher in Black women, with Hispanic women much lower but higher than other races. Although the overall incidence of breast cancer among AA women is lower than in White American women, this cancer is more common in young premenopausal AA women, and AA breast cancer patients of all ages are more likely to have advanced disease at diagnosis, higher risk of recurrence, and poorer overall prognosis (Williams, Mohammed, & Shields, 2016) (see Table 3–3).

CHILDBIRTH-RELATED DEATHS Although the risk of dying from pregnancy and childbirth-related causes in the United States is low, the rate has more than doubled since 1987, when it reached an all-time low of 6.6 deaths per 100,000 live births. This rate was maintained until about 1998, when the rates began to rise. Between 2003 and 2007, the maternal mortality rate rose from 12 to 15 per 100,000 women in the United States. The rate in 2013 was 17.3 deaths per 100,000 live births in the United States (Creanga, 2018). The World Health Organization (WHO) reports rates for maternal mortality in developed countries as 12 deaths per 100,000 live births (World Health Organization [WHO], 2018). In 2015 the United States was identified by the WHO as one of eight countries that had an increase in maternal mortality over the past decade. Maternal mortality increases with age across all age groups and ethnicities. The leading complications causing maternal deaths in the United States overlap with the main global causes; hemorrhage, pregnancy-related hypertensive disorders, and infection are among the top causes of death in both the United States and the developing world. Other leading causes of maternal death in the United States are thrombotic pulmonary embolism, cardiomyopathy, cardiovascular conditions, cerebrovascular, and other medical conditions, whereas in developing countries, obstructed labor and unsafe abortions lead. Black women are three to four times more likely to die of maternal complications than White women (Creanga, 2018). Foreign-born Hispanic women are more likely than U.S.-born Hispanic women to die from pregnancy complications, perhaps related to language barriers or concerns about immigration status impacting access to prenatal care. However, ethnic differences cannot be solely accounted for by an increased prevalence in health conditions related to maternal mortality. Access to care and quality of care are contributing factors (Creanga et al, 2012; Tucker, Berg, Callaghan, & Hsia, 2007; WHO, 2018).

CANCER In 2014, cancer was the second leading cause of deaths in the United States (Siegel, Miller, & Jemal, 2018). The most common sites for cancer in women regardless of race/ethnicity were the breast, lung and bronchus, and colorectum. Lung and bronchus cancer was the number one cause of cancer death for all women with the exception of women of Hispanic origin, in whom breast cancer was the number one cause. Note that the Hispanic group, by definition, overlaps with all other groups. Although lung cancer is the number one cause of cancer death, female breast cancer is by far the most common cancer to occur among women. Over twice as many females have breast cancer than lung cancer, although the mortality prevalence is reversed for all but women of Hispanic origin. Colorectal cancer is the third most common cause of cancer mortality among women of all ethnic backgrounds. Deaths from cancer of the pancreas and ovary are also ranked in the top 10 causes of cancer deaths among women. Liver cancer is plateauing for men, but continuing to rise rapidly in women with an annual increase of 8 percent between 2010 and 2014 in those ages 60 to 69 years (Siegel, Miller, & Jemal, 2018).

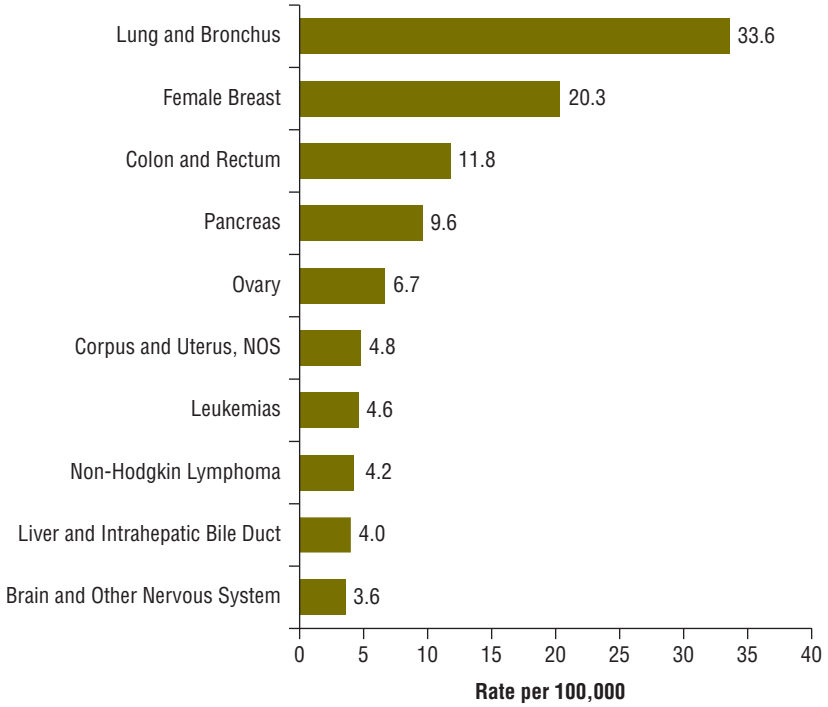
Although the incidence rate of breast cancer for Black women is less than for White women, the mortality rate is significantly higher for Black women (Williams, Mohammed, & Shields, 2016). It is estimated that the cost of cancer care in the United States in 2020 will be $158 billion per year, with a little over $19 billion going for breast cancer (Mariotto, Yabroff, Shao, Feuer, & Brown, 2011). The incidence for breast cancer slightly increased between 2005 and 2014 perhaps due to better screening (Siegel, Miller, & Jemal, 2018). However, breast cancer incidence rates decreased with the cessation of widespread use of estrogen-progestin hormone therapy. Following the release of the 2002 report of the Women's Health Initiative (WHI) trial of estrogen plus progestin, the use of menopausal hormone therapy in the United States decreased substantially. Subsequently, the incidence of breast cancer also dropped, suggesting a cause-and-effect relation between hormone treatment and breast cancer. However, the cause of this decrease remains controversial (Chlebowski et al., 2009).

Lung cancer incidence and mortality rate is beginning to decrease among women and is continuing to decrease among men in most states. The rate of decrease for men is about twice as much as for women. Lung cancer incidence is influenced by variations in smoking behavior (Henley et al., 2011; Siegel, Miller, & Jemal, 2018).

Colorectal cancer incidence is similar in men and women. Between 2005 and 2014 its incidence has annually decreased by about 2 to 3 percent. This decrease of incidence is most likely related to increased use of colonoscopy for screening, leading to removal of pre-cancerous polyps. This decrease of incidence has stabilized in women for the most recent years (see Siegel, Miller, & Jemal, 2018). Colorectal cancer deaths are higher in Black women, perhaps indicating a need for earlier detection (U.S. Cancer Statistics Working Group, 2018). Ovarian cancer rates are higher among White women, but mortality rates are similar for all ethnic groups. A 1.5 percent decrease in incidence rates was observed between 2001 and 2015, perhaps due to the use of hormonal contraception. Survival rate is tied directly to the stage of ovarian cancer (Noone et al., 2018). New cases of cervical cancer in U.S. women in 2015 were 12,845; approximately 4,175 women died from this cancer in 2015. The incidence of cervical cancer in the United States in 2015 was highest in Hispanic and Black women. Some geographical areas of

Figure 3–1. Most Common Cancer Deaths for Women.

SOURCE: U. S. Cancer Statistics: Data Visualization, Leading Cancer Cases and Deaths, Male and Female, 2015. https://gis.cdc.gov/Cancer/USCS/DataViz.html

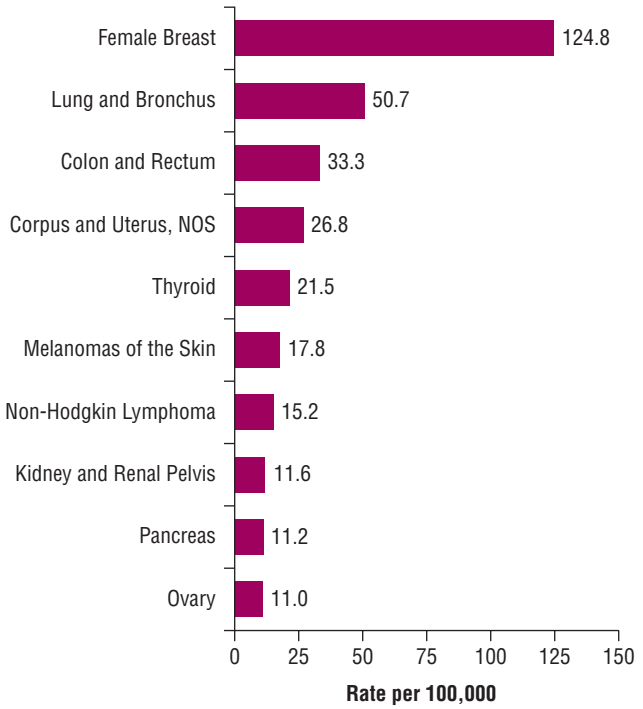


the United States also have higher incidences of cervical cancer. These higher incidences are thought to be related to lack of availability of screening (U.S. Cancer Statistics Working Group, 2018) (see Figures 3–1 and 3–2).

HIV/AIDS Mortality rates from HIV have been plummeting in general; however, for Black women aged between 20 and 54, HIV continues to be ranked among the top 10 causes of death, peaking at number four among Black women in the 35- to 44-year age group. HIV also is ranked among the top 10 causes of death for AI/AN women aged between 25 and 34, being ranked tenth (CDC, 2018a). Adult and adolescent females' new HIV diagnoses were 19 percent (7,529) of the total new HIV diagnoses (39,782) in the United States in 2016. The overall rate of diagnosis of HIV infection in women declined by 16 percent between 2011 and 2015. By race/ethnicity, the percentage of new cases for Black/AA women (61%) was slightly more than three times higher than the percentage for White women (19%) and just less than four times higher than the percentage for Hispanics/Latinos (16%). Relatively few cases were diagnosed among Asian, AI/AN, Native Hawaiian/other Pacific Islander females, and females reporting multiple races. The CDC recommends routine HIV screening in health care settings for all adults, aged 13 to 64, and repeat screening at least annually for those at high risk (CDC, 2018b).

Figure 3–2. Top 10 Cancer Sites in Women.

SOURCE: U. S. Cancer Statistics: Data Visualization, Leading Cancer Cases and Deaths, Male and Female, 2015. https://gis.cdc.gov/Cancer/USCS/DataViz.html



CARDIOVASCULAR DISEASES More than one in three female adults has some form of cardiovascular disease (CVD), and it is the leading cause of death for AA and White women. It is the second leading cause for other races and ethnicities, following cancer (CDC, 2018a). Since 1984, the rate of CVD among women has been greater than among men; however, in 2015, female deaths from heart disease were nearly equal to males. About 6.6 million living women have a history of a myocardial infarction (MI) or angina pectoris, with 2.7 million having had an MI. Despite a lower incidence rate, Black women are more likely than White women to die of CVD. Women are more likely than men to die: 26 percent of women with a recognized MI die within 1 year of diagnosis compared to 19 percent of men over the age of 45 with a recognized MI. This is, in part, because women have heart disease, on average, at an older age than men (Mehta et al., 2016). Black women also are more likely to have a stroke (also known as cerebrovascular accident [CVA]) and to die from a stroke. Of all stroke deaths, 60.2 percent were among women. Hypertension (HTN) is a primary contributor to CVD. Again, Black women are much more likely to have this condition than others, with 44.2 percent of Black women over the age of 20 having HTN (USDHHS, Office of Minority Health, 2014). After the age of 65, women are more likely than men to be diagnosed with HTN (Benjamin et al., 2017). Smoking, obesity, and cholesterol levels all contribute to the risks for CVD. A study comparing AA, Asian Indian American (AIA), and Caucasian American women found that AA and AIA women aged 30 years or older had more lifestyle, dietary, hemodynamic, anthropometric, and laboratory identified risk factors than White women, including higher apolipoprotein A-1, lipoprotein (a) (Lp(a)), fibrinogen, and fasting insulin levels in AA women, and higher Lp(a) and fibrinogen levels in AIA and Asian American/Pacific Islander women. Unfortunately, adopting a Western lifestyle, including more dietary fat and decreased exercise, further increases the risk for CVD (Banerjee, Wong, Shin, Fortmann, & Palaniappan, 2011; Guerra et al., 2005; Narayan et al., 2010; Velásquez-Mieyer et al., 2008). Data published by the American Heart Association confirms that women's risks for CVD are steadily increasing with the rise of obesity rates and metabolic syndrome and the subsequent increase in the incidence of diabetes mellitus, type II (DMII) and chronic kidney disease (CKD) (Benjamin et al., 2017) (see Figure 3–3).

Many lifestyle risk factors are modifiable, such as eating too much fat and being sedentary. Smoking only four or fewer cigarettes per day increases the risk of MI by two times. Better screening for and management of diabetes, HTN, smoking, overweight, inactivity, and high cholesterol can significantly improve one in every three women's risk for coronary heart disease. Obesity is now one of the major preventive health dilemmas in the United States. As obesity and overweight grow as public health problems, efforts to begin to change the trajectory in childhood become critical.

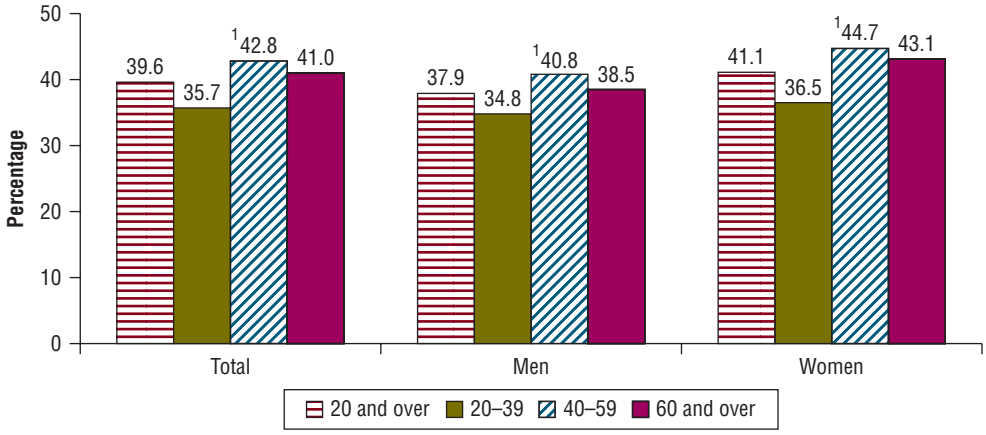
Leading Causes of Morbidity in U.S. Women

CONDITIONS REQUIRING EMERGENCY DEPARTMENT OR HOSPITAL VISITS Between 2006 and 2014, the annual number of emergency department (ED) visits increased by 14.8 percent. Overall ED utilization rates in 2014 were 26 percent higher for women than for men (472.3 visits per

Figure 3–3. Obesity Among Adults Aged 20 and Over.

SOURCE: National Center for Health Statistics Data Brief, Number 288 October 2017, "Prevalence of Obesity Among Adults and Youth: United States, 2015–2016," Figure 1: https://www.cdc.gov/nchs/data/databriefs/db288.pdf

NOTES: Estimates for adults aged 20 and over were age adjusted by the direct method to the 2000 U.S. census population using the age groups 20–39, 40–59, and 60 and over. Crude estimates are 39.8% for total, 38.0% for men, and 41.5% for woman. Access data table for Figure 1 at: https://www.cdc.gov/nchs/data/databriefs/db288_table.pdf#1.



[1]Significantly different from those aged 20–39.

1,000 women versus 390.7 visits per 1,000 men). Women made 55.5 percent of all ED visits in 2014 (Moore, Stocks, & Owens, 2017). Only 55.2 percent of suicide attempts in 2014 sought medical attention in an ED. Seeking medical attention for a suicide attempt is more common for adults aged 26 to 49 (55.3 %) than for young adults aged 18 to 25 (44.5%) (Substance Abuse and Mental Health Services Administration, 2015). Additionally, suicidal ideation and intentional self-inflicted injury increased as a first-listed ED diagnoses by 414.6 percent between 2006 (43,800) and 2014 (225,600) perhaps reflective of the opioid epidemic (Moore, Stocks, & Owens, 2017).

Rates of ED visits varied by demographic characteristics, with rates highest among women, individuals 65 years and older, those from the lowest income areas, and those from rural areas (Moore, Stocks, & Owens, 2017). Falls led the list in 2010 as the major cause of unintentional injuries for all ages and increased dramatically in the 65-and-older age group with over 70 percent of ED visits in this age group being related to falls. MVAs were the third major reason for ED visits for all age groups except those ages 0 to 17 for which experiencing a cut was third (Villaveces, Mutter, Owens, & Barrett, 2013). Females accounted for 58 percent of all hospital stays in 2009, with hospitalization for childbirth accounting for 12 percent of these hospital stays. Other major reasons for female hospitalizations were related to the circulatory system, respiratory system, and biliary tract. If pregnancy and childbirth are excluded, the major differences in hospitalizations between males and females are circulatory and digestive conditions. More men were hospitalized for circulatory problems and more women for digestive issues. Five heart-related diagnoses—coronary artery disease, congestive heart failure, heart attacks, nonspecific chest pain, and cardiac dysrhythmias—were among the 10 most common principal diagnoses for both male and female hospitalizations. Other conditions causing many more hospitalizations for females than males included mood disorders (41 per 10,000 stays for females vs. 34 per 10,000 stays for males), degenerative joint disease (47% higher for females), and urinary tract infections (2.5 times higher for females) (Wier, et al., 2011).

CHRONIC CONDITIONS Most women in the United States are in good health, with 8 in 10 reporting excellent, very good, or good health. However, nearly one in five (18%) women reports that she is in fair or poor health. Rating health as fair or poor increases to one in three (33%) for low-income women and for all women this proportion increases with age, to nearly one-third of women aged 65 and older. Over 4 in 10 women (45%) have a chronic condition that requires ongoing medical attention. The incidence of chronic conditions increases with age, with over 6 in 10 women aged 55 to 64 reporting a condition needing ongoing monitoring. Women aged 18 to 64 reporting a disability (18%) is also nearly one in five (Kaiser Women's Health Survey, 2018).

Over half of women in their senior years (65 and older) have HTN (57.4%) and almost half have arthritis (47.6%). Many younger women also have chronic health problems. By the time women reach their middle years (45 to 64), 3 in 10 already have arthritis, and even nearly 1 in 10 women of reproductive age (18 to 44) says she has arthritis, HTN, asthma, or another respiratory condition. Women are also more likely to experience pain (in the form of migraines, neck pain, lower back pain, or face or jaw pain) than men. Women were nearly twice as likely to experience migraines or severe headaches, or pain in the face or jaw, than men (National Center for Health Statistics, 2017). The increase in obesity, poor nutrition, and sedentary lifestyle contributes significantly to chronic illness. Overweight (BMI = 25–30) and obesity (BMI ≥ 30) are epidemic in the United States, with 82 percent of Black African/American women and 63.5 percent of non-Hispanic White women falling into these categories (USDHHS, Office of Minority Health, 2017). Counseling for mental health issues in the past three years, including anxiety and depression, increased from 41 percent of all women in 2013 to 52 percent of all women in 2017 (Kaiser Women's Health Survey, 2018).

Arthritis is reported to affect 24.4 percent of all women compared to 18.5 percent of men (National Center for Health Statistics, 2017). A diagnosis of arthritis is associated with aging, female gender, obesity, genetics, history of abnormal alignment of the joint, history of injury to the joint, and repetitive joint use (Palazzo, Nguyen, Lafevre-Colau, Rannou, & Poiraudeau, 2016). It is estimated that by 2040, 26 percent of Americans aged 18 years or older will develop arthritis. It is the leading chronic condition in Whites and greatly affects AAs, Hispanics, AIs, and ANs as a leading cause of activity limitation. Arthritis is the number one cause of work disability (CDC, 2018c).

It is estimated that one in two women aged 50 and older will experience a fracture in their lifetime related to osteoporosis. It is much more common for women to have osteoporosis than men with women representing about 80 percent of those diagnosed with osteoporosis. Race and ethnicity also impact risk with 20 percent of White and A/PI women with osteoporosis, while only 10 percent of Hispanic women and only 5 percent of AA women are affected. However, low bone density affects higher percentages of women aged 50 and older, involving more than 50 percent of White, A/PI, and Hispanic women,

and 35 percent of AA women. Although more commonly seen in women (80% of those who have osteoporosis), the burden of osteoporosis in men remains underdiagnosed and underreported (National Osteoporosis Foundation, 2018).

Among older adults (those 65 years or older), falls are the leading cause of injury death. They are also the most common cause of nonfatal injuries and hospital admissions for trauma. The chances of falling and of being seriously injured in a fall increase with age. In 2009, the rate of fall injuries for adults aged 85 years and older was almost four times than that for adults aged 65 to 74.3 years. Women are more likely than men to be injured in a fall. In 2009, women were 58 percent more likely than men to suffer a nonfatal fall injury. Over 95 percent of hip fractures are caused by falls. Each year over 300,000 older adults are hospitalized for hip fractures with women experiencing three-quarters of all hip fractures. White women have significantly higher hip fracture rates than Black women (CDC, 2017a). See Chapter 6 for more information on falls.

AAs, AIs, and ANs have a greater incidence of kidney disease than whites or Asians, with some of the disproportionate effect explained by higher numbers of these races with HTN and diabetes. Slightly more women than men are affected. Other risk factors for developing CKD include CVD, obesity, elevated cholesterol, and a family history of CKD. The risk of developing CKD increases with age largely because risk factors for kidney disease become more common as one ages. Those most at risk are AAs, Hispanics, AI/ANs, older people (older than 60 years), and the poor (National Center for Health Statistics, 2017).

Other serious chronic diseases that occur most often in women are autoimmune diseases, systemic lupus erythematosus, multiple sclerosis, scleroderma, Hashimoto's thyroiditis, and Graves' disease. Lupus is two to three times more prevalent among women of color—AAs, Hispanics/Latinos, A/PIs, AI/ANs—than among Caucasian women (USDHHS, Office of Women's Health, 2018). Alzheimer's disease, urinary incontinence, major depression, dysthymia, and anxiety disorders are also more prevalent in women.

Women's health needs are reflected in their provider choices. Virtually all adult women aged 55 to 64 (90%) have a regular provider, compared to 75 percent of women aged 18 to 34, 84 percent of women aged 35 to 44, and 88 percent of women aged 45 to 54. As they age, women are less likely to visit a reproductive health specialty provider. Only 31 percent of women aged 45 to 64 report a gynecological visit in the past year as compared to 47 percent of women aged 18 to 44 (Kaiser Women's Health Survey, 2018).

Sensitivity, Specificity, and Predictive Value of Tests

Clinicians must understand the concepts of sensitivity, specificity, and predictive value to use and interpret test results effectively. Sensitivity is the percentage of people with a disease or condition who have a positive test. A sensitive test is used when the goal is to detect all people with the disease because nondetection consequences can be disastrous. An example is the initial enzyme-linked immunosorbent assay (ELISA) test for HIV antibodies. The test is designed to miss the lowest number of those exposed to the virus, though some nonexposed people are expected to have a positive test.

Specificity is the percentage of people with no disease who have a negative test. It takes the number of people without disease and a negative test and divides it by the total number of nondiseased people. An example is the Western blot test, which is very specific for HIV antibodies, the follow-up test for those with a positive ELISA, and is quite unlikely to be positive if HIV antibodies are absent.

Predictive value helps predict disease status. Positive predictive value (PPV) is the probability of disease if a test is positive, and negative predictive value (NPV) is the probability if the test is negative. The predictive value of a test utilizes disease prevalence in a particular site along with sensitivity and specificity. For example, a positive ELISA for HIV is more likely to be a false-positive result in a setting where prevalence of HIV disease is low.

Overview of Commonly Indicated Laboratory Tests

Performance of the tests discussed next requires the following rules and regulations established by the Clinical Laboratory Improvement Amendments (CLIA). Some tests are waived from regulation as long as the quality control tests recommended by the manufacturer are followed and the results of those tests are documented. Clinicians need to familiarize themselves with these rules and maintain knowledge of updates.

Cervical Cytology/Cancer Screening

PAPANICOLAOU TEST (PAP TEST)

Purpose. The Papanicolaou (Pap) test is a screening mechanism used to identify abnormal/atypical cervical cells suggesting actual or possible preinvasive cervical neoplastic changes (Nayar & Wilbur, 2015; Solomon et al., 2002). Cervical cancer deaths have decreased by

more than 60 percent in the United States since the Pap smear use began in 1950 (National Institutes of Health [NIH], 2018). Cervical cancer is a major solid tumor that is virally induced in nearly all cases by human papillomavirus (HPV) DNA. There are more than 150 types of HPV, more than 40 of which infect the genital area (NIH, 2018). There are 15 known HPV types associated with cervical cancer. The most common types, 16 and 18, account for more than 70 percent of all invasive cancers of the cervix (NIH, 2018). Selected other high-risk types associated with cervical cancer include 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 68, 73, and 82 (CDC, 2017b; Munoz, et al, 2003). That is, some form of HPV genotype is present in more than 99 percent of Pap specimens evaluated as positive for cervical cancer. Preinvasive lesions are categorized in a variety of ways. Squamous intraepithelial lesions (SIL), either low grade (LSIL) or high grade (HSIL), encompass terminology of cervical intraepithelial neoplasia (CIN) grades 1, 2, or 3 (more serious neoplastic changes are indicated with the increasing numeral), and dysplasia (mild, moderate, or severe). This varied terminology can be confusing, but the 2001 Bethesda System for reporting cervical cytology results is helpful in interpretation (see Table 3–4) (Nayar & Wilbur, 2015; Solomon et al., 2002). (See Chapter 16 for more information on management of cervical cancer.)

More than 90 percent of new HPV infections clear within 24 months of onset (CDC, 2017b). Persistent infection caused by high-risk HPV types is the primary risk factor for cancer precursors and cervical cancer (CDC, 2017b). It routinely takes decades for an HPV infection to progress to cervical cancer, but more rapidly progressing occurrence has been documented (CDC, 2017b). The peak incidence of HPV infections occur in the early 20s, with the highest cancer risks between ages 45 and 60 (CDC, 2017b). The median age of cervical cancer diagnoses in the United States is 49 years (CDC, 2017b).

Although the Pap test can identify some infections of the cervix and vagina, other more definitive tests are needed for diagnosis (see later and Chapter 14). New research and consensus of experts indicate that routine screening should be initiated at age 21 years and should continue until age 65 years (American Cancer Society [ACS], 2016; U.S. Preventive Services Task Force [USPSTF], 2016). Recommendations for frequency of testing vary based both on age and on previous Pap test results (see Table 3–5). However, when considering discontinuing testing, risk factors for an individual woman, including history of cervical intraepithelial neoplasia, cervical cancer, in utero exposure to DES, or a suppressed immune system, should dictate the need to continue screening beyond age 65. Screening should be discontinued upon a woman receiving a total hysterectomy with the removal of the cervix (ACS, 2016; USPSTF, 2016). Women between the ages of 21 and 29 years should have a Pap test every 3 years. Starting at age 30 years, co-testing with a Pap test and HPV screening every 5 years is preferred and should continue until age 65 years (ACS, 2016; USPSTF, 2016). However, it is acceptable for women to continue Pap tests every 3 years until age 65 years.

General Principles for Pap Specimen Collection. Prepare all collection materials prior to positioning the patient in the stirrups. Collect *before* the bimanual. Collect the Pap test *before* other tests, such as gonorrhea (GC) and chlamydia (CT) tests. This order of collection is clearly supported by the American College of Obstetricians and Gynecologists (ACOG); the rationale is to ensure the best sample with suspicious cells for the Pap test. If a wet mount is to be done, collect the specimen from the vaginal fornices before the Pap or any test is done to avoid blood from the Pap obscuring cells on the wet mount (ACOG Practice Bulletin, 2016).

To obtain the best possible specimen for liquid-based cervical cytology (LBCC) or the conventional Pap test (CPT), be precise. It is essential to get samples from the transformation zone (TZ) (the squamocolumnar junction [SCJ]), the usual site of abnormal changes (ACOG Practice Bulletin, 2016; Solomon et al., 2002). Sampling error is a major factor in false-negative results. Be sure that the entire cervix is visible prior to attempting to obtain the sample. Factors that have been identified to impact sample quality for either CPT or LBCC include bleeding, vaginal inflammation/infection, genital atrophy, history of cervical radiation, history of chemotherapy, hysterectomy, pregnancy, postpartum, lactation, or recent physical manipulation of the cervix (Gupta, Sodhani, Sardana, Singh, & Sehgal, 2013).

For CPT, the speculum can be warmed and lubricated with water prior to insertion. For LBCC, in addition to use of water for warming, the posterior blade of the speculum may also be lubricated with a small amount of water-based lubricant prior to insertion (Lin, Taylor, Apperstein, Hoda, & Holcomb, 2014). Do not routinely clean or swab the cervix prior to sampling. Excessive amounts of mucus can be gently teased off the cervix by use of a large cotton swab placed either near the vaginal sidewall next to the cervix or in the posterior fornix; then rotate the swab gently to capture and tease the mucus away from the cervix. Be sure all collection containers or slides are labeled correctly with name, date, another patient identifier, and source, and that the containers or slides match the paperwork.

The TZ may be quite different in different age groups. The TZ at the SCJ where the cells from the ectocervix and endocervix meet is the area most vulnerable to HPV DNA

Table 3–4. Cervical Cytology Results, Interpretation, and Recommended Actions for the Primary Care Provider (Don't Screen Before Age 21)

Cervical Cytology Results	Interpretation	Recommended Actions
Negative for intraepithelial lesions or malignancy	See Recommended Actions. The optional or organism findings should be interpreted in light of the history, the physical findings, and other appropriate laboratory findings.	Repeat in 3 years for women 21–29 years of age who are not at risk.
Optional to report nonneoplastic findings other than organisms. These include but are not limited to reactive cellular changes associated with inflammation (includes typical repair), radiation, intrauterine device, glandular cells post hysterectomy, atrophy.		
		For women 30–65 years of age who are not at risk and also have a negative human papillomavirus (HPV) co-test,[a] repeat in 5 years. If no HPV co-testing is used, repeat in 3 years as done for women 21–29 years of age. If positive HPV co-test, then repeat Pap in 1 year, *or* if positive HPV type 16 or 18, refer for colposcopy.
		For women > 65 years of age who are not at risk, do not screen if previous adequate results are negative.
Organisms that may be reported include organisms such as *Trichomonas vaginalis*, fungal organisms consistent with Candida species, shift in flora suggestive of bacterial vaginosis, bacteria morphologically consistent with *Actinomyces* species, cellular changes consistent with herpes simplex virus. Endometrial cells in women > 35 years of age.	Endometrial cells present in women > 35 years of age who are not currently menstruating require further evaluation.	If there is a nonneoplastic finding reported, management should be specific to the cause. Treatment of organisms depends on other findings. The woman should be reexamined and tested for the specific problem and then treated appropriately if indicated.
No endocervical cells The presence or absence of endocervical cells is provided if adequate squamous cells are present. Ten well-preserved endocervical cells should be present.	The specimen contained no endocervical cells, hence may have missed the squamocolumnar junction in the transformation zone.	For women aged 21–29 if judged "satisfactory for evaluation," repeat cytology is not necessary for 3 years. For women aged 30 and older judged "satisfactory for evaluation," if HPV negative return to routine screening. If HPV is positive repeat both tests in 1 year. If judged "unsatisfactory for evaluation," and unknown or negative HPV repeat in 2–4 months. If judged "unsatisfactory for evaluation" and age 30 or older and HPV positive, repeat the cervical cytology in 2 to 4 months or colposcopy.
ASC-US (atypical squamous cells of undetermined significance)	The cellular abnormalities are more marked than can be attributed to reactive change but cannot be definitively called squamous intraepithelial lesions (SIL). They fall short of being SIL in quantity or quality. All ASC suggest SIL, and some ASC-US are associated with CIN 2,3, but the risk of invasive cancer is low.	For women aged 21–29 repeat cervical cytology 12 months. (Reflex HPV testing is acceptable.) For women aged 30 and older reflex HPV is preferred. However, it is acceptable to repeat cervical cytology in 12 months. If HPV positive, refer for colposcopy. If negative, move to routine screening. If positive, refer for colposcopy. If negative, repeat cytology in 12 months at preferred management.
ASC-US in special circumstances *Postmenopausal* *Pregnancy*		Manage same as ASC-US result for general population. Endocervical curettage is unacceptable. Manage same as ASC-US result for general population. Except may defer colposcopy until 6 weeks postpartum.

(continued)

Table 3–4. Cervical Cytology Results, Interpretation, and Recommended Actions for the Primary Care Provider (Don't Screen Before Age 21 (continued))

Cervical Cytology Results	Interpretation	Recommended Actions
ASC-H (atypical squamous cells, cannot exclude high-grade SIL)	5–10 percent of ASC cases are in this category. It contains a mixture of real HSIL and cells that mimic. It is positively predictive (50%) for CIN 2,3 that falls between ASC-US and HSIL.	Refer for colposcopy. If biopsy confirms CIN 2,3, manage by ASCCP guidelines. If no CIN 2,3 found, repeat cytology in 6 and 12 months or perform HPV DNA testing in 12 months. If negative, return to routine screening. If positive (≥ ASC or HPV+), repeat colposcopy.
AGC (atypical glandular cells) (include categories of endocervical or glandular cells) (see next if atypical endometrial cells present)	Only about 0.2% of smears have this finding. However, this result can represent a squamous or glandular abnormality in over one-third of the cases.	All AGC results require colposcopy referral with HPV DNA testing and endocervical sampling; add endometrial sampling (if ≥ 35 or at risk for endometrial cancer).
AGC, atypical endometrial cells		Reflex HPV DNA testing or repeat cytology is unacceptable management. Requires endometrial sampling and endocervical sampling. If no endometrial pathology, then need referral for colposcopy.
AGC, favor neoplasia	This result indicates a higher risk of having high-grade CIN lesions upon biopsy.	Reflex HPV DNA testing or repeat cytology is unacceptable management. If no invasive disease, requires diagnostic excisional procedure.
AIS (endocervical adenocarcinoma in situ)	AIS result is associated with a very high risk of having AIS or invasive cervical adenocarcinoma	If no invasive disease, requires diagnostic excisional procedure.
Low-grade SIL (LSIL)	Squamous cervical abnormalities are considered to be noninvasive; with no lesion or CIN 1. However, women with LSIL are considered at higher risk for developing CIN 2,3 (28% will develop in 2 years).	Refer for colposcopy. With satisfactory colposcopy and lesion, endocervical biopsy is considered acceptable. With satisfactory colposcopy and no lesion and nonpregnant, endometrial biopsy is preferred, or with unsatisfactory colposcopy, endocervical biopsy is preferred. Management is dependent upon findings. Follow ASCCP guidelines.
LSIL in special circumstances *Postmenopause*	Initial colposcopy may not be necessary. Important to evaluate for atrophy and contraindication to vaginal estrogen use.	Perform repeat cytology with reflex HPV DNA testing in 6 and 12 months or colposcopy. If HPV+ or ASC-US or greater, refer for colposcopy. If HPV negative, repeat cytology in 12 months. If two consecutive repeat cytologies are negative, return to routine screening.
Pregnancy		Colposcopy is the preferred approach for nonadolescent; however, may choose to defer colposcopy until 6 weeks postpartum. Endocervical curettage is not acceptable during pregnancy.

(continued)

Cervical Cytology Results	Interpretation	Recommended Actions
Adolescence (age 21–24)		Repeat cytology in 12 months; refer for colposcopy if HSIL develops or if cytologic abnormality persists for 24 months. HPV DNA testing is not useful.
HSIL	Not a common diagnosis. Predicts a 70–75 percent chance of having CIN 2,3 (biopsy confirmed) or a 1–2 percent chance of invasive cervical cancer.	May choose immediate loop electrical excision procedure (LEEP) or refer for colposcopy with endocervical assessment. If colposcopy satisfactory without CIN 2,3 may repeat colposcopy and cytology every 6 months for 1 year (if negative at both screenings return to routine screening), proceed with LEEP, or review colposcopy findings with management based on revised results. If colposcopy satisfactory with CIN 2,3 confirmed, managed by ASCCP guidelines. If colposcopy unsatisfactory, diagnostic excisional procedure is recommended.
HSIL in special circumstances *Pregnancy*	Colposcopic evaluation indicated by experienced clinicians who are experienced in evaluating pregnancy-induced colposcopic changes. Pregnancy contraindicates endocervical curettage.	If HSIL on cytology confirmed but no CIN 2,3 confirmed with biopsy, colposcopy and cytology are recommended no earlier than 6 weeks postpartum. If CIN 2,3, repeat cytology and colposcopy every 12 weeks with repeat biopsy as indicated.
Adolescence (age 21–24)	Performance of immediate LEEP is unacceptable.	Refer for colposcopy. If no CIN 2,3, observe with cytology and colposcopy every 6 months for up to 24 months. If HSIL or CIN 2,3 persists for 24 months, then diagnostic excisional procedure. If two consecutive negative Paps or no HSIL, then return to routine screening.

Based On: ACOG Practice Bulletin, 2013, reaffirmed 2016; Massad et al, 2013; Saslow et al., 2012

[a]Risk factors that may indicate need for more frequent screening include those infected with HIV, those who are immunosuppressed, those exposed to diethylstilbestrol in utero, and those previously treated for cervical intraepithelial neoplasia (CIN) 2, CIN 3, or cancer.

Table 3–5 Cervical Cancer Screening Guidelines

Age	Recommendation
>21 years old	Do not screen
Between 21–29 years old	Pap test every 3 years
Between 30–64 years old	Co-testing with Pap and HPV screening every 5 years (preferred mechanism) or Pap alone (acceptable)
Greater than or equal to 65 years old	Stop screening as directed

Based on: Cervical Cancer Screening Guidelines for Average-Risk Women," American Cancer Society, the American College of Obstetricians & Gynecologists, the American Society of Colposcopy and Cervical Pathology, and the American Society for Clinical Pathology, (2012)

effects (See Figure 3–4). In an older woman, a clinician must be sure to obtain the specimen from higher in the endocervix where the SCJ is likely to be found.

Technique for Liquid-Based Cervical Cell Collection. A number of cytological cell collection systems that use a liquid-based or liquid-fixed method are on the market. The brand names of two that predominate in the United States are ThinPrep™ and SurePath™.

For sample collection with SurePath™, a detachable broom implement is used to sweep the cervix. The central portion of the broom implement is inserted in the cervical os and rotated. The detachable end of the broom implement used to collect the cervical sample is placed in the provided fixative container, and the container is then labeled and sent to the laboratory. An endocervical brush may be used in addition to the broom in order to obtain better sampling from the endocervical canal, or the company also has a plastic spatula with a removable end that can be used with the endocervical brush in place of the broom implement (BD, 2011). The additional use of an endocervical brush is particularly helpful for the nulliparous patient or a patient with a somewhat stenotic cervix in order to increase the probability of obtaining a sample from the TZ (see Figure 3–5).

Figure 3–4. Squamocolumnar junction.

SOURCE: Aimee Chism Holland

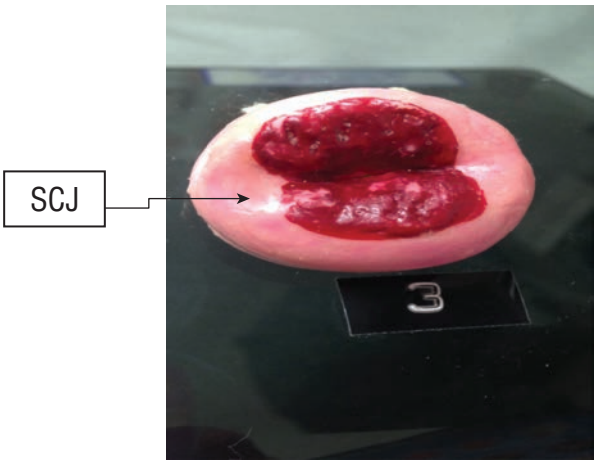
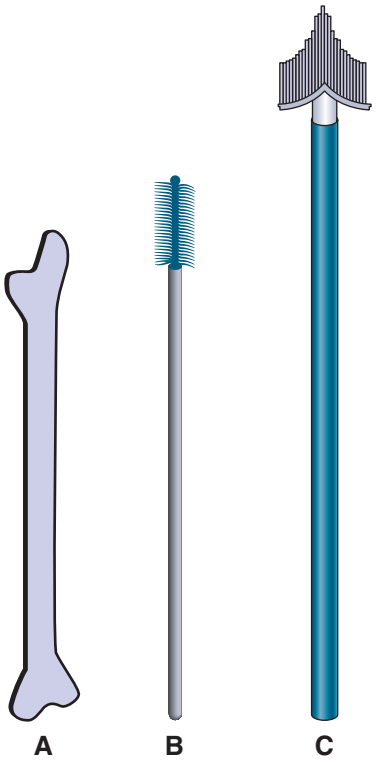


Figure 3–5. Sampling Devices for Pap Smears.



Samples are collected when using ThinPrep™ following either a brush/spatula protocol or a broom protocol described by the company. The plastic spatula is to be rotated 360° around the exocervix while maintaining tight contact. The endocervical brush is to be inserted into the cervical os to a depth where only the bottommost fibers of the brush are exposed and then rotated ¼ to ½ turn in one direction. A warning to not overrotate is included in the company's protocol. The broom protocol advises to make sure that the longer central bristles are inserted into the cervical os to a depth that allows the shorter bristles to have full contact with the exocervix. The implements are rinsed by swishing them in the PreservCyt® liquid in the collection vial in order to remove the cervical cells from the implements. The brush is to be pushed against the container walls and rotated 10 times during the rinsing process (Hologic, 2018) (see Figure 3–6).

Technique for Conventional Slide Pap Smear. This technique for collecting a Pap specimen is now rarely used in the United States. For CPT, use the endocervical cytobrush instead of a cotton-tipped applicator and the plastic spatula instead of a wooden spatula. This is because the cotton-tipped applicator and wooden spatula may hold the best cells in porous material, and therefore, not transfer the best cells to the slide. If a cotton-tipped applicator is used, wet in normal saline first so that the cells will be released from the fibers onto the slide. The cytobrush may be used for pregnant women. However, many providers choose not to use the cytobrush during pregnancy. If used, warn patients that spotting may occur; in fact, this is true for many