WOMEN'S HEALTH FACTS AND PERSPECTIVES





Table of Contents

| About Healtnywomen | 3 |
|--|----|
| HealthyWomen and Health Policy | 4 |
| The Impact of Women's Health | 5 |
| Women's Health, the Family and the Community | |
| Women's Health and the Economy | |
| HealthyWomen's Policy Priorities | |
| 1. Access to Care | 7 |
| 2. Affordability | 8 |
| 3. Preventive Care | 9 |
| 4. Chronic Conditions | 9 |
| Alzheimer's Disease | |
| Arthritis | |
| Asthma | |
| Autoimmune Conditions | |
| Cardiovascular Diseases | |
| Diabetes | |
| Osteoporosis | |
| Pain Management | |
| 5. Opioid Use Disorder and Treatment | 12 |
| 6. Medication Safety | 13 |
| 7. Medical Research and Clinical Trials | 14 |
| Endnotes | 15 |

About Healthy Women

HealthyWomen is the nation's leading independent, nonprofit health information source for women. Our mission is to educate women to make informed health choices for themselves and their families so they can live and age well.

HealthyWomen connects women to health and wellness resources on our award-winning media platforms. Women trust HealthyWomen because of our 30+ year history of providing objective, research-based and accurate content. With a monthly audience of about one million, we deliver information to women in formats—from newsletters to blogs and social media channels—to fit their needs and interests. Our audience also includes health care professionals, the media, policy makers and our many partners who share our commitment to women's health.

We also hear from women through our surveys and features, such as WomenTALK® and *Real Women, Real Stories*, which invite feedback about the health issues that concern them most and the obstacles they encounter in today's increasingly complex health care system.

We Work Collaboratively to Improve Women's Health

HealthyWomen works with a range of partners to help women achieve healthier lives.

We:

- Create partnerships and alliances to highlight women's health needs and identify solutions and program goals
- Engage a national partner network of advocacy groups, women's centers, clinics and health care systems to disseminate health information
- Explore emerging women's health issues with national thought leaders and industry
- Encourage dialogue between women and their health care providers
- Optimize social media platforms to highlight women's health issues
- Conduct research that garners unique insight from consumers and health care professionals
- Develop science-based information and perspectives that reflect advances in research and technology to further our mission to provide women with relevant and accurate health resources

HealthyWomen and Health Policy

Decisions made by local, state and federal policy makers have a direct and lasting impact on women's health. To keep women and other stakeholders informed, HealthyWomen created a Policy Center at HealthyWomen.org and identified seven policy priorities for women's health as starting points for engagement:

- 1. Access to Care
- 2. Affordability
- 3. Preventive Care
- 4. Chronic Conditions
- 5. Opioid Use Disorder and Treatment
- 6. Medication Safety
- 7. Medical Research and Clinical Trials

Our Policy Work

HealthyWomen represents women's health interests by presenting insights and information to help improve health care policy decisions.

We:

- Raise awareness among women and decision makers about the impact health policy issues have on women, families, communities and the economy
- Illustrate how health policies and practices can disproportionately affect women, particularly women of color and women of various ethnic, racial and demographic groups
- Promote policy changes and innovations that would improve women's access to timely, affordable care, based on the decisions women make with their clinicians
- Educate women about the importance of participating in clinical trials and medical research to advance our understanding of women's unique health needs
- Advocate for funding that supports women's health research, particularly to advance understanding of biological variables and sex differences

Health policy in 2019 is more important for women than ever before. Women have different needs than men, and those differences need to be recognized and incorporated into policy decisions.

- Thirty percent of women under age 65 have preexisting conditions, compared with only 24 percent of men.¹ Before the Affordable Care Act (ACA), such preexisting conditions could have been excluded from insurance coverage or prevented women from getting insurance. The likelihood of having a preexisting condition increases with age.²
- ► Thirty-eight percent of women suffer from one or more chronic diseases, compared with 30 percent of men. Seventy-five percent of all U.S. health care dollars treat people with chronic conditions.³
- More than 50 percent of women older than age 65 are living with a disability.4

The Impact of Women's Health

Women's health encompasses many more conditions than what are typically thought of as "women's health." Alzheimer's disease, lupus, migraines and urinary incontinence are some of the many complex and difficult-to-treat diseases that disproportionately affect women. And women often face additional challenges in seeking health care:

- Women have distinct disease symptoms and presentations, which are often different from those in men, especially with heart disease and Alzheimer's.
- Women may have more difficulty affording medical services, products and health insurance because of fewer economic resources.
- Women may have greater barriers accessing health care services, diagnostic and screening tests, and treatments because of caregiving and other time commitments, as well as clinician or systemic biases.
- Women often respond differently than men to certain treatments, and this can lead to greater challenges for clinicians seeking to prevent, screen for, diagnose and treat various conditions, particularly if research hasn't developed more options or insurance has restrictions on what it will pay for.

Women's health concerns also include subpopulation differences and health disparities. For example, compared to Caucasian women, African American women have higher maternal mortality rates and Hispanic women have a higher incidence of diabetes.

WOMEN'S HEALTH, THE FAMILY AND THE COMMUNITY

As health care decision makers for themselves and their families, women clearly influence the overall health of their communities. HealthyWomen's 2018 WomenTALK® survey5 demonstrated the role of women as primary health care decision makers and caregivers for their families, with 73 percent of the women surveyed indicating that they choose their family's health insurance plans. However, 60 percent reported that they found it difficult to locate plan details, and 35 percent found it difficult to understand the details of health insurance options.

Therefore, women need more accurate and timely information about their options for both health insurance and care delivery, including the clini-

Women are often the direct care providers for family members and others. For example, women make up 60 percent of the nearly 15 million Americans who are unpaid caregivers for people with Alzheimer's.¹¹

cians that are in the health insurance plan, the medicines covered by the plan's formulary, what hospitals or other facilities are in the plan's network and what are their expected—or potential—costs beyond the monthly premiums.

WOMEN'S HEALTH AND THE ECONOMY

As the role of women in all sectors of the economy has expanded, their health has become more important to the growth and resilience of local and regional economies. Unlike men, when a woman faces a serious health condition, she becomes less likely to remain fully employed or productive. Similarly, as caregivers, women face unique workplace challenges when a loved one becomes ill. Caregiving also can take a direct toll on a woman's health, resulting in additional downtime or loss of work.

Those factors contribute to reduced economic growth and progress, which is particularly problematic for communities with low unemployment and when organizations are looking to hire new employees.

- Women comprised almost 47 percent of the civilian labor force in November 2018.⁶ However, since 2000, the growth of women in the workforce has stagnated. A 2017 report by the Brookings Institution notes that "barriers to workforce participation for women are stifling the growth of the U.S. economy, and that future economic success hinges on improving career prospects and working environments for all women."⁷
- Women still earn less than men. In 2017, women's average weekly earnings were approximately 20 percent less than men's (\$770 vs. \$941).8 For full-time, full-year earnings in 2016, women's real median earnings were \$41,554, compared to \$51,640 for men.9
- According to one recent estimate, between 2016 and 2040, the increase in women with Alzheimer's and other dementias, combined with the disproportionate number of women who will serve as Alzheimer's caregivers, will result in a cumulative economic loss in the U.S. of \$5.1 trillion (2012 dollars).¹⁰

Healthy Women's Policy Priorities

1. Access to Care

ACCESS TO HEALTH CARE AND INSURANCE IMPROVES WOMEN'S LIVES

Women's health depends on their access to health care services, products and health insurance. This includes being able to find clinicians and care providers (including hospitals and pharmacies) and receive treatments, screenings and other tests that women may need. Access also means care must be geographically available and covered by health insurance.

Studies have shown that women who have health insurance have better health outcomes, productivity and well-being. Access to doctors, other clinicians and care providers can be limited by some health insurance plans' networks or prior authorization requirements. For example, some insurance plans, such as health management organizations, may not cover any care that patients receive from out-of-network providers or clinicians, while other types of health insurance may charge higher costs for patients who use out-of-network clinicians and providers. Both of those situations can lead to very expensive "surprise bills."

This is why access also means being able to find affordable (and understandable) insurance coverage that meets the needs for a woman and her family and includes the doctors, other clinicians and care providers and treatments suited to those needs.

HealthyWomen's 2018 WomenTALK® survey¹³ of 1,001 women ages 35 to 64 found that 35 percent of them had problems understanding what insurance plans covered. It also found that many women have had problems accessing the care they and their clinicians thought was best for them:

- Fifty-four percent reported needing prior approval from insurance companies before receiving medical care or a prescription medicine.
- ▶ Of those women, 27 percent decided not to pursue the medical care or receive the medicine.

The results of the WomenTALK® survey demonstrate that women buying health insurance for themselves or their families might not always understand their options. One of the goals of the Affordable Care Act was to simplify those choices and improve information about insurance options. Insurance that meets the requirements of the ACA cannot charge people with preexisting conditions higher premiums or deny them insurance, and must cover preventive services (without cost), maternity care and prescription medicines.

However, other insurance options—particularly those with lower premiums, higher deductibles or potentially higher total costs—might not meet the ACA's requirements and may not include coverage for certain services, such as maternity care, mental health and prescriptions. Such services often were not included in many health plans sold before the ACA, and HealthyWomen has opposed initiatives to expand those types of "skinny" insurance plans.

For more information visit: www.healthywomen.org/policy-center/access-care.

2. Affordability

BEING ABLE TO AFFORD INSURANCE AND HEALTH CARE IS CRITICAL FOR IMPROVING WOMEN'S HEALTH

Having health insurance that provides access to doctors, other clinicians, hospitals and pharmacies won't help women and families if the care is unaffordable. The ACA defined employer-provided health insurance as "affordable" if the premium for an individual policy is less than 9.69 percent of a household's income. Premiums for an entire family often cost considerably more than this.

Aside from monthly premium costs, affordability can also be a challenge when a plan has a high deductible or significant cost-sharing, which can be flat-dollar co-payments or percentage-of-cost co-insurance. In addition, if the plan has limited networks of hospitals or panels of clinicians, women can face very high costs for unexpected out-of-network care, which are sometimes referred to as "surprise bills." Therefore, cost problems can occur if the premium is not within the family's budget or if certain types of care or treatments have cost-sharing that is beyond the financial means of a woman or her family.

When examining the affordability of health insurance, it is important to remember that it should not be looked at as "pre-payment" for what health care services and products women and families might expect to use in the coming year—although that should certainly be part of their evaluation of potential insurance plans. Rather, insurance should be viewed as fundamental protection against unexpected health problems that can lead to very high costs.

To make informed choices, women need high-quality information about their insurance options and what their plan provides, including:

- Clinicians and hospitals that each insurance plan does—or does not—include
- Monthly premiums, co-payment and coinsurance levels for different services and types of care
- Prescription drug formulary coverage and requirements for prior authorization or step therapy
- Any coverage limitations or restrictions for particular health issues that may be of concern for women or their families

For 2019, the maximum annual out-of-pocket limits for ACA insurance are \$7,900 for individuals and \$15,800 for family coverage.

Understanding how their insurance works helps prevent surprise bills and is a reason why HealthyWomen supports greater transparency about health insurance coverage and costs.

For 2019, the maximum annual out-of-pocket limits for ACA insurance are \$7,900 for individuals and \$15,800 for family coverage.

For more information visit: www.healthywomen.org/policy-center/affordability.

3. Preventive Care

PREVENTIVE CARE AND SERVICES ARE KEY TO HEALTH AND WELLNESS FOR WOMEN

Preventive health care services and benefits are key to keeping women, their families and their communities healthy.

Preventive care has often been shown to produce cost savings:

- Screening for breast cancer is cost-effective with estimated savings of \$31,000 to \$101,000 per life year.¹⁵
- Screening for cervical cancer is cost-effective with estimated savings of \$14,000 to \$41,000 per life year.¹⁶
- Screening women for osteoporosis is cost-effective with estimated savings of \$42,000 to \$200,000 per life year.¹⁷

The ACA requires insurance plans to cover many vaccinations and other preventive services without cost to the patient, including many that are specific to women's health. To educate policy makers about the importance of those preventive benefits, in 2017 HealthyWomen launched our #KeeptheCare Campaign. As part of this campaign we conducted briefings in Washington, DC, and New York City and created a separate webpage about the required preventive services and benefits. (See www.healthywomen.org/policy-center/keep-the-care for the list of ACA required preventive services and benefits.)

For more information visit: www.healthywomen.org/policy-center/preventive-care.

4. Chronic Conditions

WOMEN HAVE MORE CHRONIC CONDITIONS AND FACE HIGHER COSTS

Chronic medical conditions are a serious problem for millions of women and families. Many chronic conditions affect women more frequently than men, including Alzheimer's disease, asthma, autoimmune conditions and migraine. In addition, some chronic conditions have different symptoms in women than men, and women may respond differently to some treatments. Certain chronic conditions can disproportionately affect women of color, those in different ethnic groups or those who live in specific regions of the country. Since access to the right diagnostic and treatment options for chronic conditions is essential to women's health, all of these factors are important for informing and guiding HealthyWomen's work.

About 50 percent of adults in the United States are living with a chronic medical condition. As the primary caregivers in most families, women often have first-hand experience not only with their own chronic medical conditions but also those of their family members.

As the National Conference of State Legislatures noted in 2013, "Thirty-eight percent of women suffer from one or more chronic diseases, compared to 30 percent of men [and] 75 percent of all U.S. health care dollars treat people with chronic conditions." 19

Alzheimer's Disease

Alzheimer's disproportionately affects women because women live longer. Women are also often the primary caregiver and care coordinator for others, so they may be responsible for managing the medical care and financial and insurance issues not only for themselves, but for multiple generations of their family. This may include arranging support services, such as in-home visits and day care.

- Almost two-thirds of Americans with Alzheimer's are women, and women at age 45 have about twice the lifetime risk of developing Alzheimer's as men.²⁰
- Women are more than twice as likely as men to die from Alzheimer's.²¹
- Approximately two-thirds of caregivers for people with Alzheimer's and other dementias are women.²²
- Seventy-six percent of the economic costs for treating dementia (including Alzheimer's) in the U.S. are for women.²³
- The incremental Medicaid costs from Alzheimer's are 70 percent higher for women than for men.²⁴

Arthritis

Women are about 40 percent more likely than men to have arthritis.²⁵

- Men get arthritis more often in their hip joints and women in their hands and knees.²⁶
- Arthritis undermines earning potential because, according to the Centers for Disease Control and Prevention (CDC), arthritis is a leading cause of work disability in the U.S.²⁷

Asthma

Asthma is a serious condition where people have problems breathing, and the rate of asthma in the U.S. may be increasing.

- Women are almost twice as likely to have asthma (10.4 percent vs. 6.4 percent in men).²⁸
- In the United States, 3,518 people died from asthma in 2016, with 2,162 of them being women.²⁹
- Asthma causes an estimated extra \$80 billion in health spending per year.30

Autoimmune Conditions

Many autoimmune diseases occur more frequently in women.³¹

- About 90 percent of adults with lupus are women ages 15 to 44.³²
- Women are five to eight times more likely than men to have thyroid problems³³ that are often autoimmune related, such as Grave's disease, which affects seven times as many women as men.³⁴
- Women are also two to three times more likely to develop multiple sclerosis than men.
- Seventy-five percent of people with rheumatoid arthritis are estimated to be women.
- A 2008 study found that the direct health care costs for women with lupus was over \$12,000, and their employment rate dropped by almost 30 percent after their diagnosis.³⁵

Cardiovascular Diseases

Heart disease, also known as cardiovascular disease, is the leading cause of death for women,³⁶ and women often have different cardiovascular-related symptoms than men.

- One in three women will die of heart disease or stroke, compared with one in 25 women who will die of breast cancer.³⁷
- Forty-two percent of women who have heart attacks die within one year compared to only 24 percent of men.³⁸
- Women have different signs of a heart attack:
 - Women are more likely to experience sharp pain in the upper body as a symptom of a heart attack.³⁹
 - Women are more likely to describe chest pain that is sharp and burning and more frequently have pain in the neck, jaw, throat, abdomen or back.⁴⁰
 - More than half of women having a heart attack experience unexplained or unusual tiredness or muscle fatigue not related to exercise.⁴¹
 - Women are more likely to experience nausea or vomiting as a sign of a heart attack.⁴²
- Women are 35 percent more likely than men to die from a stroke.⁴³
- Women with atrial fibrillation have higher risks of blood clots, which can cause strokes, but women are less likely to be prescribed an oral anticoagulation medicine than a man.44

Diabetes

 Over the course of their lifetime, women have about a 40 percent chance of developing diabetes compared to about 33 percent for men.⁴⁵

Osteoporosis

Of the estimated 10 million Americans with osteoporosis, more than 8 million (or 80 percent) are women. Osteoporosis is most common in older women. In the United States, osteoporosis affects one in four women age 65 or older.⁴⁶

Pain Management

Pain is a complex condition that is hard to measure and can be difficult to treat, in part because the perception of pain varies from person to person. Women are known to both experience pain differently and respond differently to treatments for pain, including migraines and pain-related diseases such as opioid use disorder (see next section).

- According to the CDC, "Women are more likely to have chronic pain, be prescribed opioid pain relievers, and use them for longer time periods than men."⁴⁷
- A majority of common chronic pain conditions are more prevalent in women compared with men, including lower back pain, osteoarthritis, rheumatoid arthritis, fibromyalgia, chronic fatigue syndrome, irritable bowel syndrome, temporomandibular disorders and migraines.⁴⁸
- Compared to men, women experience greater clinical pain, suffer greater painrelated distress, show higher sensitivity to experimentally induced pain, describe pain differently and, in general, consistently rate their pain significantly higher.^{49,50,51,52}
- Sex and gender differences in chronic pain have been attributed to hormonal fluctuations, differences in body size, blood pressure, social expectations, emotional response, sensory aspects, skin thickness, cognitive variations, method of stimulation and differences in psychological traits such as anxiety and depression.⁵³

5. Opioid Use Disorder and Treatment

OPIOID USE DISORDER IS A NATIONAL EPIDEMIC DISPROPORTIONATELY HARMING WOMEN

Opioid Use Disorder

Opioid use disorder (OUD) is a national epidemic that is disproportionately harming women.⁵⁴ While opioid medications (also called narcotics) have a useful role in managing pain from injury, surgery or illness, the overuse, misuse and illicit use of medications and illegal opioids (such as heroin) have fueled a crisis for women and their families nationwide.

A major policy challenge is how to prevent inappropriate use of opioid compounds while also providing adequate treatment for people with acute or chronic pain, both of which may benefit from opioid medications in the right situations. Furthermore, the treatment and management of pain do not begin and end with opioid medications but include other therapeutic options and the expectations of clinicians and patients. It is also important to realize that people can become physically dependent even when taking opioid medicines as directed by their clinicians.

What is clear from the national dialogue about this crisis is that there is not one solution—or even a set of solutions. It will require collaboration and cooperation across many groups, including clinicians, patients and their families, insurers, regulators, legislators, law enforcement, first responders and the media.

The starting point for confronting the opioid epidemic is overcoming the stigma associated with OUD by recognizing that it is a biological disease (like diabetes or high blood pressure) that requires integrated medical care, which can be lifelong. Communities, care organizations, clinicians, patients and families who recognize this—and incorporate it into their policies and approaches to people with OUD—have achieved better outcomes.

HealthyWomen has been—and will be—an active participant in this dialogue to advance the interests of women, their families and their communities in addressing the opioid epidemic. We are engaging partners and stakeholders in an ongoing effort to highlight best practices for overcoming barriers to OUD treatment and policies and issues related to ensuring access to appropriate and adequate treatments for pain.

HealthyWomen has compiled a tool kit of resources for legislators and other interested parties about approaches for combating the wide-ranging OUD crises in their communities, which often require recognizing and overcoming stigma in their professional and personal networks. The "Tool Kit for Legislators: Resources for Strengthening Families and Communities by Improving Access to Treatment for Substance Use Disorder" is available at www.HealthyWomen.org/policy-center/legislator-toolkit.

For more information visit: www.healthywomen.org/policy-center/opioid-use-disorder.

6. Medication Safety

UNSAFE MEDICINES PUT WOMEN'S HEALTH AT RISK

As the primary health care decision maker for most families, women have an important role in making sure all medicines are safe to use for themselves and their families.

In the United States, medicine safety is largely overseen by the Food and Drug Administration (FDA), which approves the sale and marketing of prescription and over-the-counter medicines. However, FDA approval is not enough. Medications that are expired, damaged, adulterated or even fraudulent are also important concerns.

The best way to make sure that medicines are not adulterated or fraudulent is to purchase them from reliable sources. While most major pharmacy chains now have mail, phone or online ordering options, pharmacies that are based only on the Internet should be viewed cautiously, for a number of reasons:

- It can be very difficult (if not impossible) to know where these pharmacies are located and where the medicines they will be sending came from.
- Medicine "trans-shipped" from one country through another to the U.S. may appear to come from that intermediary country, but could be fake, substandard or not meet the quality or safety standards of that country or the United States.⁵⁵
- Medicines shipped from other countries can be confiscated at the border because importation of most medicines is not legal in the U.S. (although you can generally bring small quantities for personal use when traveling).

Furthermore, although medicines purchased from other countries may be less expensive, ordering from an Internet-only pharmacy can raise new challenges. For example, patients lose the ability to communicate with their pharmacist about their medicines and any side effects or usage questions. A local pharmacist—or one at a mail-order pharmacy in the U.S.—can be an important source of information as part of the care team. Lastly, medicines purchased from other countries are not covered by insurance, which means that those costs do not count toward insurance deductibles.

HealthyWomen has expressed our general and specific safety concerns about the importation of medicines to policy makers. For example, we (along with the American Medical Women's Association and Women Impacting Public Policy) sent a letter to state senators in Colorado who were considering importation legislation.⁵⁶ HealthyWomen also remains committed to great understandings of how medicines can have different effects—and possible safety profiles—in women. (See the next section on Medical Research and Clinical Trials.)

For more information visit: www.healthywomen.org/policy-center/medication-safety.

7. Medical Research and Clinical Trials

RESEARCH NEEDS TO INCLUDE WOMEN TO INFORM CLINICIANS ABOUT SEX DIFFERENCES IN DISEASES AND RESPONSES TO TREATMENTS

Medical research is a complex process that spans basic scientific research in the lab to major clinical studies involving people, also called clinical trials. Those trials are designed to determine the safety and effectiveness of new treatments, medical devices and diagnostic and screening tests.

Historically, medical research has focused on male participants. But we know that women have different symptoms for many diseases and can respond differently to treatments. Those differences can include medicine being less effective, requiring different dosages or having greater side effects or risks. That is why the FDA and the National Institutes of Health (NIH) now require women to be included in clinical trials. Most government health agencies have an Office of Women's Health to continue the dialogue about how to improve women's health through basic, applied, clinical and public health programs and research.

Although regulations and best-practice guidelines require including women in clinical research (and female animals in basic research), those inclusive standards aren't always followed. This may be due to ignorance or concerns about increased costs. This means that many therapies are not specifically or adequately studied in women. Therefore, we are encouraged by the Trans-NIH Strategic Plan for Women's Health Research,⁵⁷ as well as the report from the National Institute of Child Health and Human Development's Task Force on Research Specific to Pregnant Women and Lactating Women⁵⁸ that made recommendations for how to close knowledge gaps about the safe and effective use of therapies for pregnant and lactating women.

HealthyWomen believes that ongoing education and vigilance about including women in public and private research is important. And to help women access clinical trials for cancers we established the HealthyWomen Clinical Trial Navigator System.⁵⁹

For more information visit: www.healthywomen.org/policy-center/clinical-trials.

Endnotes

- "Mapping Pre-existing Conditions across the U.S.," Kaiser Family Foundation, August 28, 2018. https://www.kff.org/health-reform/issue-brief/mapping-pre-existing-conditions-across-the-u-s/.
- 2 "How ACA Repeal and Replace Proposals Could Affect Coverage and Premiums for Older Adults and Have Spillover Effects for Medicare," Kaiser Family Foundation, June 5, 2017. https://www. kff.org/health-reform/issue-brief/how-acarepeal-and-replace-proposals-could-affectcoverage-and-premiums-for-older-adults-andhave-spillover-effects-for-medicare/.
- 3 "Improving Women's Health: Health Challenges, Access and Prevention," National Conference of State Legislatures, June 2013. http://www. ncsl.org/research/health/improving-womens-health-2013.aspx.
- 4 "Seven Things You May Not Know about Women's Health," Centers for Disease Control and Prevention. https://www.cdc.gov/features/7things-womens-health/index.html.
- 5 WomenTALK® 2018 survey, HealthyWomen. https://www.healthywomen.org/sites/default/ files/files/womentalk_2018.pdf.
- 6 "Table A-1. Employment status of the civilian population by sex and age," Bureau of Labor Statistics. https://www.bls.gov/news.release/empsit.to1.htm.
- 7 "The 51 percent: Driving Growth through Women's Economic Participation," Brookings Institution, December 5, 2017. https://www.brookings.edu/blog/brookings-now/2017/12/05/10-facts-about-american-women-in-the-work-force/.
- * "Table 39: Median Weekly Earnings of Full-Time Wage and Salary Workers by Detailed Occupation and Sex," Bureau of Labor Statistics. Labor Force Statistics from the Current Population Survey. Last modified January 18, 2019. https://www. bls.gov/cps/cpsat39.htm.
- 9 "Income and Poverty in the United States: 2016," United States Census Bureau, Report Number P60-259, September 12, 2017. https://www. census.gov/library/publications/2017/demo/ p60-259.html.

- ¹⁰ "The Price Women Pay for Dementia," Milken Institute, March 2016.
- "Improving Women's Health: Health Challenges, Access and Prevention," National Conference of State Legislatures, June 2013. http://www. ncsl.org/research/health/improving-womens-health-2013.aspx.
- According to a 2017 Kaiser Family Foundation Survey, "Half (49 percent) of uninsured women went without or delayed care because of the costs... Almost as many postponed preventive services (47 percent) and 42 percent skipped a recommended medical test or treatment. One in three uninsured women did not fill a prescription and/or skipped or cut pills, and roughly one in six (16 percent) reported they experienced problems obtaining mental health care because of cost." https://www.kff.org/womens-health-policy/ issue-brief/womens-coverage-access-and-affordability-key-findings-from-the-2017-kaiserwomens-health-survey/.
- WomenTALK® 2018 survey, HealthyWomen. https://www.healthywomen.org/sites/default/ files/files/womentalk_2018.pdf.
- ¹⁴ Because family health insurance premiums can cost considerably more than 9.69 percent of a family's household income, this created a complication called the ACA's "family glitch," which is a policy problem that can prevent families from buying lower cost health insurance through ACA marketplaces. Also see https://www.healthaf-fairs.org/do/10.1377/hpb20141110.62257/full/.
- The cost savings and cost-effectiveness of clinical preventive care," Robert Wood Johnson Foundation, Research Synthesis Report No. 18. September 2009, p.15.
- ¹⁶ "The cost savings and cost-effectiveness of clinical preventive care," Robert Wood Johnson Foundation, Research Synthesis Report No. 18. September 2009, p.15.
- ¹⁷ "The cost savings and cost-effectiveness of clinical preventive care," Robert Wood Johnson Foundation, Research Synthesis Report No. 18. September 2009, p.16.
- *Multiple Chronic Conditions in the United States," RAND, 2017. https://www.rand.org/pubs/tools/ TL221.html.

- "Improving Women's Health: Health Challenges, Access and Prevention," National Conference of State Legislatures, June 2013. http://www. ncsl.org/research/health/improving-womens-health-2013.aspx.
- ²⁰ "2019 Alzheimer's Disease Facts and Figures," Alzheimer's Association.
- 21 "Deaths: Final Data for 2016," National Vital Statistics Report, Centers for Disease Control and Prevention, Volume 67, Number 5, July 26, 2018. https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_05.pdf.
- *22 "2019 Alzheimer's Disease Facts and Figures," Alzheimer's Association. https://www.alz.org/media/Documents/alzheimers-facts-and-figures-2019-r.pdf.
- ²³ "The Price Women Pay for Dementia," Milken Institute, March 2016.
- 24 "2019 Alzheimer's Disease Facts and Figures," Alzheimer's Association. https://www.alz.org/ media/Documents/alzheimers-facts-and-figures-2019-r.pdf.
- 25 "Percent of Adults who Report Having Arthritis, by Gender," Kaiser Family Foundation. https://www. kff.org/other/state-indicator/percent-of-women-with-arthritis/?.
- 26 "Why Women Get More Arthritis Than Men," Intermountain Healthcare, October 27, 2017. https://intermountainhealthcare.org/blogs/topics/live-well/2016/05/womens-arthritis/.
- 27 "Arthritis," National Center for Chronic Disease Prevention and Health Promotion. https://www. cdc.gov/chronicdisease/resources/publications/factsheets/arthritis.htm.
- 28 "Most Recent Asthma Data," Centers for Disease Control and Prevention. https://www.cdc.gov/ asthma/most_recent_data.htm.
- ²⁹ "Asthma," National Center for Health Statistics. https://www.cdc.gov/nchs/fastats/asthma. htm.
- 30 "Asthma Costs the U.S. Economy More than \$80 Billion Per Year," American Thoracic Society, Press Release, January 12, 2018. https://www.tho-racic.org/about/newsroom/press-releases/journal/2018/asthma-costs-the-us-economymore-than-80-billion-per-year.php.

- 31 "5 Common Autoimmune Diseases That Affect Women," HealthyWomen. https://www.healthywomen.org/content/article/5-common-autoimmune-diseases-affect-women. Accessed April 22, 2019.
- "Lupus and Women," Fact Sheet, Office of Women's Health, Department of Health and Human Services. https://www.womenshealth.gov/files/documents/fact-sheet-lupus.pdf.
- 33 "General Information/Press Room," American Thyroid Association. https://www.thyroid.org/ media-main/press-room/.
- 34 "Graves' Disease," National Institute of Diabetes and Digestive and Kidney Diseases. https:// www.niddk.nih.gov/health-information/endocrine-diseases/graves-disease.
- ³⁵ "Health care costs and costs associated with changes in work productivity among persons with systemic lupus erythematosus." *Arthritis Rheum.* 2008;59(12):1788-1795.
- 36 "Women and Heart Disease Fact Sheet," Centers for Disease Control and Prevention. https://www. cdc.gov/dhdsp/data_statistics/fact_sheets/ fs_women_heart.htm.
- 37 "Cardiovascular Disease and Other Chronic Conditions in Women: Recent Findings," Agency for Healthcare Research and Quality, 2012.
- 38 "Cardiovascular Disease and Other Chronic Conditions in Women: Recent Findings," Agency for Healthcare Research and Quality, 2012.
- 39 "Know the symptoms," Office of Women's Health, Department of Health and Human Services. https://www.womenshealth.gov/heart-attack.
- ⁴⁰ National Heart, Lung and Blood Institute. "What Are the Signs and Symptoms of Heart Disease?" [cited July 19, 2013]; www.nhlbi.nih.gov/health/health-topics/hdw/signs.html External.
- ⁴¹ "Know the symptoms," Office of Women's Health, Department of Health and Human Services. https://www.womenshealth.gov/heart-attack.
- ⁴² "Know the symptoms," Office of Women's Health, Department of Health and Human Services. https://www.womenshealth.gov/heart-attack.
- 43 "Deaths: Final Data for 2016," National Vital Statistics Report, Centers for Disease Control and Prevention, Volume 67, Number 5, July 26, 2018. https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_05.pdf.

- ⁴⁴ Thompson LE, Maddox TM, Lei L, et al. Sex differences in the use of oral anticoagulants for atrial fibrillation: a report from the National Cardiovascular Data Registry (NCDR®) PINNACLE registry. *J Am Heart Assoc.* 2017;6(7).
- ⁴⁵ "At Risk: Pre-Existing Conditions Could Affect 1 in 2 Americans," Center for Medicare and Medicaid Services. https://www.cms.gov/CCIIO/Resources/Forms-Reports-and-Other-Resources/preexisting.html#_edn10.
- 46 "Osteoporosis," Fact Sheet, Office of Women's Health, Department of Health and Human Services. https://www.womenshealth.gov/files/documents/fact-sheet-osteoporosis.pdf.
- ⁴⁷ "Prescription Painkiller Overdoses: A Growing Epidemic, Especially Among Women," Centers for Disease Control and Prevention. https://www. cdc.gov/vitalsigns/prescriptionpainkilleroverdoses/index.html.
- ⁴⁸ Fillingim RB, King CD, Ribeiro-Dasilva MC, Rahim-Williams B, Riley JL 3rd. Sex, gender, and pain: a review of recent clinical and experimental findings. *J Pain*. 2009;10(5):447-485.
- ⁴⁹ Paller CJ, Campbell CM, Edwards RR, Dobs AS. Sex-based differences in pain perception and treatment. *Pain Med.* 2009;10(2):289-299.
- Mogil JS. Sex differences in pain and pain inhibition: multiple explanations of a controversial phenomenon. Nat Rev Neurosci. 2012;13(12):859-866.
- ⁵¹ Brun Sundblad GM, Saartok T, Engström LM. Prevalence and co-occurrence of self-rated pain and perceived health in school-children: Age and gender differences. *Eur J Pain*. 2007;11(2):171-180.
- ⁵² Strong J, Mathews T, Sussex R, New F, Hoey S, Mitchell G. Pain language and gender differences when describing a past pain event. *Pain.* 2009;145(1-2):86-95.

- 53 Derbyshire SWG. Gender, pain, and the brain. *Pain: Clinical Updates*. 2008;16(3).
- 54 "Final Report: Opioid Use, Misuse, and Overdose in Women," Office of Women's Health, Department of Health and Human Services, July 19, 2017. https://www.womenshealth.gov/files/ documents/final-report-opioid-508.pdf.
- 55 The 1987 federal law (Prescription Drug Marketing Act) that banned importation and created the modern supply chain that ensures safety and purity was specifically enacted because of the importation of fake, ineffective birth control pills.
- ⁵⁶ Letter to Colorado state senators about importation legislation from Women Impacting Public Policy, HealhtyWomen and the American Medical Women's Association, March 6, 2019. https://www.healthywomen.org/sites/default/files/files/letter-to-co-senators-importation-march-2019.pdf
- ⁵⁷ "The 2019-2023 Trans-NIH Strategic Plan for Women's Health Research." https://orwh.od.nih. gov/about/trans-nih-strategic-plan-womenshealth-research. Accessed April 11, 2019.
- 58 "Task Force on Research Specific to Pregnant Women and Lactating Women. Report to Secretary, Health and Human Services, and Congress." September 2018.
- 59 "TRY IT: HealthyWomen's New Cancer Clinical Trial Navigation Service," HealthyWomen. https:// www.healthywomen.org/content/article/ try-it-healthywomen%E2%80%99s-new-cancer-clinical-trial-navigation-service.

