CARDIOVASCULAR DISEASE tool kit

a women in government publication

TOOL KIT CONTENTS
» Cardiovascular Disease Article
» Heart Disease Article
» Number of Heart Disease Deaths per 100,000 Women (by state)
» Sample Resolution
» Suggested Social Media Posts
CARDIOVASCULAR DISEASE

Nearly 400,000 U.S. women die each year from cardiovascular disease—either heart disease or stroke—making it the number one cause of death of American women, according to the American Heart Association.\textsuperscript{iv}

Author Linda Johns of Seattle had just finished a presentation with friends on her middle-grade mysteries when flu-like symptoms overtook her. A pressure developed on her heart. As she was driving home, she felt a sharp stabbing pain in her back. Thanks to a PBS documentary, she had an idea of what was happening—she was having a heart attack.\textsuperscript{i}

Allison O’Reilly was at home outside Washington, D.C., when her left arm started aching, but then stopped. Later that night, her ear started ringing, the room started to spin and she felt nauseous. She went to the hospital, where doctors diagnosed her with vertigo. The next morning, her husband called 911 and, when the EMTs arrived, they concurred with his thoughts—O’Reilly seemed to have had a stroke.\textsuperscript{ii}

Michigan state Rep. Julie Plawecki was on vacation hiking with her daughters in Oregon in June 2016. Although she had completed a similar feat the day before, she suddenly felt she couldn’t go on. She’d been hiking 25 minutes and didn’t seem fatigued but suddenly collapsed and later died. She’s presumed to have had a heart attack.\textsuperscript{iii}

Nearly 400,000 U.S. women die each year from cardiovascular disease—either heart disease or stroke—making it the number one cause of death of American women, according to the American Heart Association.\textsuperscript{iv} Nine out of 10 women have one or more risk factors for heart disease or stroke, and women have a higher lifetime risk than men.\textsuperscript{v} In many cases, however, women aren’t aware of their risk and, because the symptoms for women are different than those for men, cardiovascular disease can be much more deadly for women.\textsuperscript{vi}

Women and Heart Disease

For many years, heart disease and stroke were considered as diseases that primarily affected men. As recently as 2012, nearly half of the women surveyed by the American Heart Association—44 percent—were not aware that heart disease is the leading cause of death for women.\textsuperscript{iv} The knowledge rate for the deadliness of cardiovascular disease was much higher for white women—65 percent—compared to 36 percent of African-American women and 34 percent of Hispanic women.\textsuperscript{vi} Illinois state Sen. Mattie Hunter strives to illuminate the disparities in these and other issues related to people of color. She has sponsored resolutions “focusing on African-American women specifically because of the high incidence of African-Americans afflicted with heart disease.”\textsuperscript{xii}

About half the women in the American Heart Association survey knew the major symptoms of cardiovascular disease, and even fewer women—25 percent—could name hypertension and high blood cholesterol as key risk factors for heart disease.\textsuperscript{iv} For these and other reasons, women are less likely than men to survive their first heart attack.\textsuperscript{xv} Women under age 50 are twice more likely than men to die from a heart attack; 42 percent of women who have heart attacks die within a year, compared to 24 percent of men.\textsuperscript{xv}

The American Heart Association in January 2016 issued the first-ever scientific statement on heart attacks in women. While noting the number of cardiovascular deaths in women had dropped dramatically because of improved treatment,
Don’t Dismiss’ Possible Symptoms of Heart Disease

Carmela Powers had severe jaw pain for months back in 2013. It would come and go, so she would ignore it.

“Every time I went to the doctor they would dismiss that so I didn’t think much of it,” she told WTTE-TV.

That jaw pain was a symptom of heart disease, though she didn’t know it at the time.

She’s not alone. Women present with heart attacks different than men; a new scientific statement on heart attacks in women from the American Heart Association details those differences. The statement, released in January, notes atypical symptoms like shortness of breath, nausea or vomiting, and back or jaw pain are more common in women than in men.

For Carmela Powers, the ignored jaw pain escalated to a near-death experience.

In July 2013, she was walking down the hall of her home when she fell and stopped breathing. She had no pulse.

Luckily, her husband Terry was nearby. He started calling 911 and started CPR. The emergency crew arrived within four minutes. “Thank goodness they were grabbing a bite to eat right down the road,” Carmela wrote for Mended Hearts Central Ohio.

She was transported to a nearby hospital where a tube was installed to help her breath. She was diagnosed with ventricular fibrillation arrest—or V Fib Arrest. She was transported to OSU but, when she arrived, she again had no pulse. Medical personnel administered CPR and took her immediately for a heart catheterization. While she didn’t need stents, she was diagnosed with vasospasms, which doctors believed caused her event. She had two more heart attacks while at OSU.

“I spent long days in the hospital and was able to fight for my life with the help of family, friends and medical staff,” she said in her Mended Hearts piece.

Laxmi Mehta, MD, a noninvasive cardiologist and director of the Women’s Cardiovascular Health Program at The Ohio State University and led the writing group, told Women in Government that many people still don’t recognize that women can have heart attacks.

“If you’re having neck pain or back pain, the first thing on your mind isn’t you’re having a heart attack, it’s more muscular,” she said.

Dr. Mehta detailed other possible symptoms for the OSU Wexner Medical Center video.

“It could be a burning pain, it could be a poking pain or they could just have jaw pain and never have associated chest pain. Shortness of breath. Unusual malaise that happens all of a sudden. Indigestion. Jaw Pain. Shoulder pain.”

—Laxmi Mehta, MD
Women’s Cardiovascular Health Program, The Ohio State University

Now, Powers knows not to ignore the symptoms. She checks her pulse rate and blood pressure twice a day and can spot even the most subtle signs of heart problem.

Women often ignore those symptoms or don’t associate them with the severity they impose. “Either because (the symptoms) are atypical or because they don’t have time for a heart attack at this moment,” she said in the OSU video.

“Don’t dismiss it as something else even though it might not seem like a heart problem, it could be easily a heart problem,” she told WTTE-TV.
better efforts to prevent heart disease and increased public awareness, the chair of the writing group, Laxmi Mehta, MD, said, “women still fare worse than men and heart disease in women remains underdiagnosed, and undertreated, especially among African-American women.”

Dr. Mehta, a noninvasive cardiologist and director of the Women’s Cardiovascular Health Program at The Ohio State University, said the statement reviews how women present with heart disease and the differences in general in how heart attacks in women differ in outcomes and treatment than in men. The statement, published in the journal Circulation, offered these highlights:

» “Women frequently have different underlying causes of heart attacks than men, such as the types of plaque buildup.

» “Compared to men, women tend to be undertreated and are less likely to participate in cardiac rehab after a heart attack.

» “Risk factors such as high blood pressure and diabetes increase heart attack risk in women more severely than in men.”

Dr. Mehta pointed out the statement, while published in an American Heart Association journal to reach physicians, also was widely reported in mainstream media. “Not only did it raise awareness in the medical community, but it also really caught the eye of the lay public so women across the country are educated on what heart attacks are and how they present in women,” she said. It also had an international reach, she said, and medical communities in other countries are striving to learn how the U.S. has been able to make improvements in narrowing the gender gap in treatment and diagnosis of heart disease.

“Deaths from cardiovascular disease have decreased over the past decade and a lot of it has to do with pushing people to be aware of symptom differences,” said Dr. Mehta, “not just patients but the medical community as well. Women don’t present like men.”

For instance, Dr. Mehta recently treated a patient who complained of neck pain that became worse with exertion. “If you’re having neck pain or back pain, the first thing on your mind isn’t that you’re having a heart attack,” said Dr. Mehta. That’s because those pains are traditionally associated with a muscular problem. “I think women are still in denial of it, as well as a lack of recognition.” She said the first challenge in diagnosis is getting the patient or patient’s family to recognize something is wrong and the symptoms could indicate a heart attack. The second challenge, Dr. Mehta said, is ensuring the medical community is attuned to the atypical heart attack symptoms in women.

According to the Heart Association’s scientific statement, those atypical symptoms—shortness of breath, nausea or vomiting, and back or jaw pain—are more common in women than men. An early warning sign for 71 percent of women is a sudden onset of weakness that feels like the flu, milder symptoms that present a challenge to diagnosis. Some women experience no chest pain—nearly two-thirds of women who died after heart attacks had no history of such pain.

Oftentimes, heart attacks claim the lives of people who don’t fit the profile of someone with heart disease. Rep. Plaweccki “looked absolutely the picture of health,” said Sen. Rebekah Warren, a Women in Government state director and Rep. Plaweccki’s colleague in the Michigan Senate. “She was fit. She was thin. She wasn’t carrying any extra weight. To think that any moment, if we aren’t paying attention to our own health data …” Too often, Sen. Warren said, women are caretakers for so many other people that “taking care of ourselves is the last thing we do.”

Women and Stroke

Women also have some unique challenges with regard to stroke. While the typical symptoms of stroke are similar in both men and women, women are often less likely to be treated with the current best available treatment, according to Cheryl D. Bushnell, MD, stroke chief at Wake Forest Baptist Medical Center in Winston-Salem, N.C. She led the panel that wrote the first-ever guidelines for preventing strokes in women. The guidelines, published in Stroke, an American Heart Association journal, focused on birth control, pregnancy, depression and other risk factors that only women face or that women face more often than men.

For example, the guidelines suggest women should be checked for high blood pressure before starting on oral contraceptives. The combination of high blood pressure and birth control pills, the guidelines say, raises the risk of stroke. Likewise, pregnancy increases the risk of stroke, especially for those women who suffer pre-eclampsia. Dr. Bushnell said women suffering with pre-eclampsia during pregnancy have an increased risk of stroke for decades after the pregnancy. “Women need to be aware that if they did...
‘Every Stroke is Different’

October 17, 2010, started out as a normal day for Allison O’Reilly. She had an ache in her left arm that started during the day, then dissipated.

Evening came and things changed. “It was about 7 o’clock and all of a sudden my ear started ringing and the room was spinning and I felt nauseous,” O’Reilly said in an interview with Women in Government. “You know your body and something wasn’t right.”

A neighbor transported her to the hospital, where her husband, who had been traveling, met them about midnight. She was released around 3 a.m. with a diagnosis of vertigo, perhaps related to dehydration.

“They never checked for stroke,” O’Reilly said.

It wasn’t until the next morning, when her husband Kevin brought her some juice before going to the pharmacy for her prescription, that the couple knew something was terribly wrong. Kevin O’Reilly called 911 and the EMTs indicated it could be a stroke.

“I’m relatively thin, I was 49 at the time, didn’t have blood clots, never smoked, didn’t have high blood pressure, didn’t have high cholesterol,” O’Reilly said. “They never called the stroke team because I didn’t meet the criteria.”

That’s too often the case when women go to the hospital with atypical symptoms of stroke, which can include an altered level of consciousness, be sleepy or lethargic, or have pain associated with symptoms, which are not readily associated with an impending stroke, according to Cheryl D. Bushnell, MD, stroke chief at Wake Forest Baptist Medical Center in Winston-Salem, N.C.

“Women will often have symptoms that confuse the picture a little more,” Dr. Bushnell told Women in Government. “It’s possible for some reason, that women are missed by emergency physicians or people who are evaluating them in an acute time frame.”

The delay in diagnosis adds to the challenges in recovery for women who suffer strokes. The best available treatment, tissue plasminogen activator or tPA, a medicine that can break up blood clots, must be administered with a few short hours to be effective, Bushnell said.

Allison O’Reilly shares her journey as a stroke survivor in her new book Out of the Darkness.

Photo: Cal Covert, Siler Ridge Productions

The delay also changes the lives of women who suffer stroke.

“I’m not able to do what I used to do,” O’Reilly says through tears. “I just want to be normal again.”

She is still working on her recovery, but knows she’s one of the lucky ones who can afford the physical therapy on her own.

“Stroke has insurance caps,” she said. “They should just help stroke survivors with continued rehab to give them the best possible chance to recover.” That’s one of the biggest challenges stroke patients face, she said. Removing those caps, she said, “would be a wonderful start.”

O’Reilly is also working with the Stroke Recovery Foundation in Naples, Fla., to help people like her. She’s written a book, “Out of the Darkness,” to share her story.

“I wrote the book not to make money but to help other people,” she said, “because there are a lot of books based on doctors writing or caregivers, but not from the patient’s perspective. The fact that I was young, relatively, I felt it would be helpful because no one likes to talk about stroke until it happens.”

While she hopes her story can help others, she stresses that the book is just her story. “Every stroke is different and every recovery is different,” she said.
have a complication such as pre-eclampsia, they need to start focusing on prevention much earlier in life than they would otherwise,” she said. “That means controlling blood pressure, living a lifestyle that can help prevent other risk factors from occurring in the first place.”

The challenge, Dr. Bushnell said, is that stroke often isn’t considered as a diagnosis for women, which delays treatment. Sometimes, she said, patients may be showing up too late to receive the best available treatment, tissue plasminogen activator or tPA, a medicine that can break up blood clots that needs to be administered within a short time frame of three to four hours. “If patients don’t recognize stroke symptoms and they wait, it’s too late to receive this medication,” Dr. Bushnell said. The other challenge, she noted, is that women can have stroke symptoms that may not be as obvious as those in men. While both genders can experience weakness on one side, difficulty speaking or vision loss, women are more likely to have an altered level of consciousness, be sleepy or lethargic, or have pain associated with symptoms, which are not readily associated with an impending stroke. “Women will often have symptoms that confuse the picture a little more,” Dr. Bushnell said. “It’s possible for some reason, that women are missed by emergency physicians or people who are evaluating them in an acute time frame.”

That was the case for Allison O’Reilly, author of “Out of the Darkness,” which chronicles her story after she suffered a stroke in 2010. She had just gotten a clean bill of health from her physician two weeks before she noticed some symptoms, which she didn’t immediately associate with stroke—her left arm started aching during the day, but then stopped. About 7 p.m., her ear started ringing, the room started spinning and she felt nauseous. At the emergency room, doctors diagnosed her with vertigo and sent her home. She wasn’t evaluated for stroke because she didn’t fit the stroke criteria. “I’m relatively thin, I was 49 at the time, didn’t have high blood pressure, didn’t have high cholesterol,” she said. “They never called the stroke team because I didn’t meet the criteria.”

The next morning, her husband, who had been traveling, gave her juice before he went to get the prescription filled for the vertigo medication. It was then he noticed the typical signs of stroke and called for an ambulance; the EMTs thought so as well.

Stroke, like heart disease, was long considered a man’s disease. Dr. Bushnell said research on cardiovascular disease has long been focused on men, but in the last few decades women have been included in research. That’s important, she said, because the prevalence of cardiovascular disease in women is likely to grow, making the stroke guidelines even more important. “Women live longer than men and they’re more likely to have a stroke for that reason,” she said. “The longer you live, the more likely you are to have a stroke; prevention is very important for that reason.”

But stroke is not limited to older people. Susan Baker, PhD, RN, senior manager for programs and memberships for the National Stroke Association, said there has been a 43 percent increase in stroke in young people. “We’re seeing a lot more in young people and that’s the real issue right now,” Baker said, “especially young women with birth control and pregnancies.”

What States Can Do

A majority—80 percent—of heart attacks and strokes can be prevented with healthy lifestyle changes. Women who make healthy lifestyle changes—such as quitting or not starting smoking, avoiding excessive alcohol use, eating a balanced diet and exercising regularly—can reduce their risk of both heart attacks and stroke. Some policies—like banning smoking in public places or requiring healthy food options in state-run cafeterias such as those in schools or state office buildings—can specifically address the risk factors for cardiovascular disease. But some, like Baker, believe “it’s very hard to legislate good health. Individuals have to take that on their own individual health to not only monitor it, but to take control.” She and others believe education on the risks and symptoms of cardiovascular disease can go a long way in helping to reducing the number of cases and deaths from heart disease and stroke.

Dr. Mehta said state legislators can promote policy to advance public health initiatives such as smoking cessation and cutting sodium and fats in foods. “I think that … legislators are public figures and people look to them, so hearing the message from them sometimes carries more weight,” she said. “You can’t force people to make changes, but we can certainly create a healthier environment where the healthy choice is the easy thing to do.” But, she said, cardiac professionals appreciate smoke-free policies, as well as policies focused on efforts to re-
duce salt, fatty foods and sugared beverages in the diet because they can all improve the healthfulness of the population.\textsuperscript{xlii}

The Centers for Disease Control and Prevention provides State Public Health Action Grants for statewide initiatives to address risk factors associated with chronic diseases, including heart disease and stroke, as well as obesity and diabetes, which can increase risk factors for cardiovascular diseases.\textsuperscript{xliii} States have used these grants to increase access to better nutrition; implement quality improvement processes in health care; and increase support for self-management of high blood pressure.\textsuperscript{xliv}

The American Heart Association in 2009 established the 2020 Impact Goal to reduce the number of deaths from cardiovascular disease and stroke and to improve the cardiovascular health of all Americans by 20 percent by 2020.\textsuperscript{xlv} Many states adopted plans modeled after that plan—and the one adopted prior to that goal, the 2010 Impact Goal. For some states, meeting the goals of the plan are more urgent than others. A 2010 CDC study of heart health across the states found Oklahoma, Mississippi and West Virginia had low percentages of adults with ideal cardiovascular health, while Vermont and Virginia, along with Washington, D.C., had higher percentages of adults with ideal cardiovascular health.\textsuperscript{xlvi}

Many states are addressing key risk factors for cardiovascular disease through various policy initiatives.

**Smoke-free Policies**

Smoking is one of three key risk factors for cardiovascular disease—covering both heart disease and stroke. While many physicians and advocates press for smokers to quit to improve their own health, eliminating secondhand smoke has proved to be one way to reduce the number of heart attacks in a community.

Consider Olmsted County, Minn., which implemented a comprehensive smoke-free restaurant ordinance in 2007. In the 18 months after all workplaces, including bars, became smoke free, the incidence of heart attacks—or myocardial infarction—dropped by 33 percent and the incidence of sudden cardiac death dropped by 17 percent.\textsuperscript{xlvii} All other cardiovascular risk factors during that time period remained constant. These results are not outliers. A 2012 meta-analysis of 45 studies conducted after initiation of smoke-free legislation found those laws helped to significantly lower hospital admissions or death for heart disease.\textsuperscript{xlviii} More comprehensive laws resulted in greater reductions for hospital admissions.\textsuperscript{xlix}

Since the U.S. Surgeon General reported there is no safe level of secondhand smoke in 2006, 26 states and Washington, D.C., have adopted comprehensive smoke-free laws, banning smoking in all public places.\textsuperscript{1} While six states have not passed statewide restrictions, the rest of those without a comprehensive ban do prohibit smoking in some venues or allow smoking only in designated smoking areas. In many of those states, local jurisdictions have banned smoking.\textsuperscript{11}

Baker, with the National Stroke Foundation, said those smoke-free policies can help cut the amount of secondhand smoke to which people are exposed. “That’s all fine and dandy with secondhand smoke, but that doesn’t have as much effect as getting somebody to quit smoking,” she said. She advocates for state initiatives for education about the specific impact smoking has on the cardiovascular system in high schools, colleges, community centers, nursing homes and hospitals. But she said, that education should also include...
education about stroke and the fact that it doesn’t just affect older people.\textsuperscript{lii}

**Healthful Diets**

Since 1980, the federal government has published *Dietary Guidelines for Americans* that make recommendations about a healthy diet for Americans.\textsuperscript{liii} In their message for the 2015–2020 Dietary Guidelines, Health and Human Services Secretary Sylvia M. Burwell and Agriculture Secretary Tom Vilsack point out the robust body of literature linking healthy eating and the impact on disease prevention.

“Chronic diet-related diseases continue to rise and levels of physical activity remain low,” they wrote in the message. “Progress in reversing these trends will require comprehensive and coordinated strategies, and the *Dietary Guidelines* is an important part of a complex and multifaceted solution to promote health and help to reduce the risk of chronic disease.”\textsuperscript{liv} The guidelines are intended to be a resource for individuals to help them make healthier food decisions, as well as health professionals and policymakers in the design of food and nutrition programs.

Washington Gov. Jay Inslee considered the 2010 *Dietary Guidelines for Americans* when he issued an executive order in 2013 mandating executive branch agencies to implement food and beverage policies consistent with the Washington State Healthy Nutrition Guidelines.\textsuperscript{lv} Using that order, the state’s Department of Health asks agencies to commit to a policy to serve healthy options in vending machines, meetings and events, on-site retail venues and cafeterias.\textsuperscript{lvi}

Many states focus on school lunches as a way to promote healthier eating. Dr. Mehta, the Ohio cardiologist, said establishing those habits—and education surrounding the need for better nutrition—early is important. “It’s important to have that public education campaign from childhood and beyond,” she said.\textsuperscript{lvii}

In Washington, Inslee also focused on healthful living for youth and led the Healthiest Next Generation Initiative in 2014–2015. Its initial goal was to help children in Washington maintain a healthy weight and eat a healthy diet; the goals were expanded in the second year based on achievements in the first.\textsuperscript{lviii} In his 2014 State of the State address, Inslee introduced the goals set forth by the initiative. “Research shows that, for the first time in our history, this generation is not expected to live as long as the previous generation. This should be unacceptable to us. We need to make the next generation the healthiest generation in the history of our state.”\textsuperscript{lix}

California schools ban fried foods and foods with artificial trans fats.\textsuperscript{lx} Likewise, Colorado schools are banned from serving food that contains industrially produced trans fats.\textsuperscript{lxii} With House Bill 2404, adopted in 2015, Oregon amended its nutrition standards for foods sold outside the National School Lunch Program or the School Breakfast Program. Those standards include everything from a la carte items such as milks and other beverages to fundraising activities and vending machines.\textsuperscript{lxi}

**Exercise**

When he spoke at the Shaping Our Appalachian Region Innovation Conference in eastern Kentucky in June 2016, Dr. Tom Frieden, director of the Centers for Disease Control and Prevention, called physical activity “the closest thing we have to a wonder drug.” Physical activity helps maintain heart health in a number of ways. Not only can it lower your risk of developing heart disease, but it also addresses other risk factors for heart disease, such as high blood pressure, high LDL cholesterol and weight, as well as stroke.\textsuperscript{lxii}

State leaders recognize the health benefits of exercise and have worked to encourage it or make it easier. While no state has a plan specifically targeting exercise, physical activity is often a component in state plans targeting health conditions such as obesity.\textsuperscript{lxiii} They include everything from creation of walkable communities to mandates for physical activity in schools. For example, Louisiana in 2014 passed legislation to develop Complete Streets policies for a connected transportation network for motorists, bicyclists and pedestrians to promote physical activity.\textsuperscript{lxiv}

That same year, the Vermont legislature passed a bill requiring at least two physical education classes each week for children in kindergarten through second grade and all schools to offer all students the opportunity to participate in at least 30 minutes of physical activity every day during or outside the school day.\textsuperscript{lxv} In Utah, the state Office of Edu-

---

*Dietary Guidelines for Americans* is a resource for individuals to help them make healthier food decisions, as well as health professionals and policymakers in the design of food and nutrition programs.
cation encourages employees to develop healthy habits like exercise by giving those who participate an hour and a half each week to participate in the program.\footnote{\textit{Ibid}}

**Raising Awareness**

While legislators can adopt policies and pass laws that can affect the risk factors for cardiovascular disease, one of the most important things they can do, advocates say, is raise awareness of the disease and how it affects women differently than men. “Policy is important—Illinois’ smoking ban is very effective,” said Sen. Hunter. “But I think people need to become more aware and the only thing you can do to make people more aware is to take the issue directly to them.”\footnote{\textit{Ibid}}

In 2004, the American Heart Association created the “Go Red for Women” campaign to draw attention to the disparate ways in which cardiovascular disease affects women and men.\footnote{\textit{Ibid}} Many states each year adopt proclamations recognizing “Go Red for Women” during American Heart Month in February. Michigan state Rep. Sarah Roberts, a WIG state director, said the annual day helps to raise awareness through the visual wearing of red and the many speakers discussing it.\footnote{\textit{Ibid}}

The Go Red for Women event is focused on “education and arming women with the tools it takes to be focused on their own health. Education is key,” said Sen. Warren. But she believes her state can go further. “It hit me that we do that one time of year in a pretty big way and then we don’t do anything again until next year.”\footnote{\textit{Ibid}}

Rep. Roberts points out Michigan took an important step with expanded Medicaid to ensure women can access the treatment they need for cardiovascular disease. “That just allows us to cover more individuals who are low-income women who are less likely to go to the doctor frequently because of costs,” she said. “If women don’t have health care, they’re only going to the doctor when it’s something very dire.”\footnote{\textit{Ibid}}

Sen. Warren said the expanded coverage under the Affordable Care Act should make getting the message to women easier. “Now that we’ve achieved some depth in the number of people covered by insurance, we should be doing education that, as women, we should be getting our annual physical, get more of the important information that we need to know and not just when something is wrong. We do that with our kids.”\footnote{\textit{Ibid}}

But most everyone recognizes that, while there has been progress, there is still work to be done.

“I do think, overall, there is increased awareness about quitting smoking, exercising and eating more fresh whole foods and I think more people are doing that,” said Rep. Roberts. “We still have an epidemic of obesity in this country, and certainly in Michigan, so it’s going to be a work in progress.”\footnote{\textit{Ibid}}

Sen. Hunter would like to expand on what she and others in the Illinois legislature are doing to ensure women know their special risks. “We need to be promoting awareness more so women can make it a priority,” she said. “Not enough women see (cardiovascular disease) as their greatest threat.”\footnote{\textit{Ibid}}

* \textit{Guess Which Woman Is Having A Heart Attack (Hint: You Can’t).} Retrieved July 15, 2016, from NPR.org: \url{http://www.npr.org/sections/health-shots/2016/06/04/480488038/guess-which-woman-is-having-a-heart-attack-hint-you-cant}

* O’Reilly, A. (2016, July 26). (M. Branham, Interviewer)


* \textit{Ibid}


* \textit{Ibid}


* American Heart Association/American Stroke Association, 2016

* \textit{Ibid}


* \textit{Stroke Fact Sheet, 2015}

* \textit{Heart Disease Statistics at a Glance, n.d.)}

* Women and Heart Disease Facts. (n.d.). Retrieved June 2, 2016, from Women’s Heart Foundation: \url{http://www.womensheart.org/content/heartdisease/heart_disease_facts.asp}


* (A woman’s heart attack causes, symptoms may differ from a man’s, 2016)

* Mehta, 2016

* \textit{Ibid}

* \textit{Ibid}

* (A woman’s heart attack causes, symptoms may differ from a man’s, 2016)
HEART DISEASE: a leading cause of death among women

While nearly half of all Americans—49 percent—have at least one of three key risk factors for heart disease, 90 percent of women have one or more risk factors for heart disease or stroke.

Every 80 seconds, a woman in the U.S. dies from cardiovascular disease or stroke; those diseases cause one of three deaths in U.S. women. While nearly half of all Americans—49 percent—have at least one of three key risk factors for heart disease, 90 percent of women have one or more risk factors for heart disease or stroke.

- The key risk factors for heart disease are high blood pressure, high LDL cholesterol and smoking.
- Diabetes can put people at a higher risk for heart disease, as can being overweight or obese, having a poor diet, being physically inactive and using alcohol excessively.
- Heredity, age, gender and ethnicity are risk factors for stroke, as are smoking, excessive alcohol use, a poor diet and lack of exercise.

But many women don’t understand the risks they face. Only 34 percent of Hispanic women and 36 percent of African-American women know that heart disease is their greatest health risk, even though cardiovascular disease is the leading cause of death among those women. That lack of understanding, combined with the differences in the signs and symptoms of a heart attack, can be deadly—women are less likely than men to survive their first heart attack, partly because of the way the disease presents.

- An early warning sign for 71 percent of women is a sudden onset of weakness that feels like the flu, milder symptoms that present a challenge to diagnosis.
- Some women experience no chest pain—nearly two-thirds of women who died after heart attacks had no history of such pain.

As for the other major result of cardiovascular disease—strokes—symptoms include sudden weakness, paralysis (inability to move) or numbness of the face/arms/legs, especially on one side of the body. Other symptoms may include confusion, trouble speaking or understanding speech, difficulty seeing in one or both eyes, shortness of breath, dizziness, loss of balance or coordination, loss of consciousness, or sudden and severe headache.

A majority—80 percent—of heart attacks and strokes can be prevented with healthy lifestyle changes. Women who don’t smoke and avoid drinking alcohol excessively, eat a balanced diet and get exercise can reduce their risk of both heart attack and stroke. Women who make healthy lifestyle changes have better outcomes than men who make those changes, but far fewer women are included in studies that could help improve heart health—less than one-fourth of participants in heart-related studies are women.

States have taken action to address these health risks, some with assistance from the federal government.

- The Centers for Disease Control and Prevention provides State Public Health Action Grants for statewide initiatives to address risk factors associated with chronic diseases, including heart disease and stroke, as well as obesity and diabetes, which can increase risk factors for cardiovascular diseases.
- States have used these grants to increase access to better nutrition; implement quality improvement processes in health care; and increase support for self-management of high blood pressure.

- In the mid-2000s, many states adopted plans modeled after the American Heart Association’s 2020 Impact Goal to reduce the number of deaths from cardiovascular diseases and stroke and to improve the cardiovascular health of all Americans by 20 percent by 2020.
A 2010 CDC study of heart health across the states found Mississippi and West Virginia had low ideal cardiovascular health while Vermont and Virginia, along with Washington, D.C., had higher ideal cardiovascular health.\textsuperscript{xviii}

Mississippi’s plan included goals of increasing the proportion of residents who are physically active and consumed a heart-healthy diet and decreased the number of residents who use tobacco products.\textsuperscript{xix}

West Virginia University in 2013 evaluated that state’s Cardiovascular Health Program pilot project to create a register to address chronic diseases and found ‘significant improvements in cardiovascular health measures including blood pressure, cholesterol and other measures related to the Million Hearts Initiative ...’\textsuperscript{xx}

Many states are addressing key risk factors for cardiovascular disease through various policy.

Thirty states—Arizona, California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Rhode Island, South Dakota, Utah, Vermont, Washington and Wisconsin—have passed statewide laws banning smoking in public places.\textsuperscript{xxi}

Some states target state employees with healthy food options being served in state facilities. Washington’s Department of Health, for example, asks agencies to commit to a policy to serve healthy options in vending machines, meetings and events, on-site retail venues and cafeterias.\textsuperscript{xxii} California schools ban fried foods and foods with artificial trans fats.\textsuperscript{xxiii}

States also have adopted policies to promote physical activity in schools and communities. For example, Louisiana in 2014 passed legislation to develop Complete Streets policies for a connected transportation network for motorists, bicyclists and pedestrians to promote physical activity.\textsuperscript{xxiv} That same year, the Vermont legislature passed a bill requiring at least two physical education classes each week for children in kindergarten through second grade and all schools to offer all students the opportunity to participate in at least 30 minutes of physical activity every day during or outside the school day.\textsuperscript{xxv}
## Number of Heart Disease Deaths per 100,000 Women

**Timeframe: 2014**


<table>
<thead>
<tr>
<th>State</th>
<th>Death Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>131.8</td>
</tr>
<tr>
<td>Alabama</td>
<td>182.5</td>
</tr>
<tr>
<td>Alaska</td>
<td>109</td>
</tr>
<tr>
<td>Arizona</td>
<td>106.2</td>
</tr>
<tr>
<td>Arkansas</td>
<td>169.8</td>
</tr>
<tr>
<td>California</td>
<td>111</td>
</tr>
<tr>
<td>Colorado</td>
<td>102.5</td>
</tr>
<tr>
<td>Connecticut</td>
<td>115.3</td>
</tr>
<tr>
<td>Delaware</td>
<td>135.7</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>166.8</td>
</tr>
<tr>
<td>Florida</td>
<td>116.9</td>
</tr>
<tr>
<td>Georgia</td>
<td>143.7</td>
</tr>
<tr>
<td>Hawaii</td>
<td>96.4</td>
</tr>
<tr>
<td>Idaho</td>
<td>121.4</td>
</tr>
<tr>
<td>Illinois</td>
<td>133.5</td>
</tr>
<tr>
<td>Indiana</td>
<td>144.7</td>
</tr>
<tr>
<td>Iowa</td>
<td>123</td>
</tr>
<tr>
<td>Kansas</td>
<td>121.2</td>
</tr>
<tr>
<td>Kentucky</td>
<td>156.7</td>
</tr>
<tr>
<td>Louisiana</td>
<td>171.6</td>
</tr>
<tr>
<td>Maine</td>
<td>118.1</td>
</tr>
<tr>
<td>Maryland</td>
<td>131.4</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>106.3</td>
</tr>
<tr>
<td>Michigan</td>
<td>161</td>
</tr>
<tr>
<td>Minnesota</td>
<td>88.3</td>
</tr>
<tr>
<td>Mississippi</td>
<td>184.5</td>
</tr>
<tr>
<td>Missouri</td>
<td>154.5</td>
</tr>
<tr>
<td>Montana</td>
<td>116.2</td>
</tr>
<tr>
<td>Nebraska</td>
<td>108.5</td>
</tr>
<tr>
<td>Nevada</td>
<td>148.1</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>119.5</td>
</tr>
<tr>
<td>New Jersey</td>
<td>134.1</td>
</tr>
<tr>
<td>New Mexico</td>
<td>109.9</td>
</tr>
<tr>
<td>New York</td>
<td>145.2</td>
</tr>
<tr>
<td>North Carolina</td>
<td>123.3</td>
</tr>
<tr>
<td>North Dakota</td>
<td>115.7</td>
</tr>
<tr>
<td>Ohio</td>
<td>146.9</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>184.4</td>
</tr>
<tr>
<td>Oregon</td>
<td>102.1</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>139.1</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>122.1</td>
</tr>
<tr>
<td>South Carolina</td>
<td>140.5</td>
</tr>
<tr>
<td>South Dakota</td>
<td>111.9</td>
</tr>
<tr>
<td>Tennessee</td>
<td>164.7</td>
</tr>
<tr>
<td>Texas</td>
<td>134.4</td>
</tr>
<tr>
<td>Utah</td>
<td>128.7</td>
</tr>
<tr>
<td>Vermont</td>
<td>129.5</td>
</tr>
<tr>
<td>Virginia</td>
<td>124.3</td>
</tr>
<tr>
<td>Washington</td>
<td>103.2</td>
</tr>
<tr>
<td>West Virginia</td>
<td>152.3</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>121.5</td>
</tr>
<tr>
<td>Wyoming</td>
<td>126.9</td>
</tr>
</tbody>
</table>
Go Red for Women

WHEREAS, 44 million U.S. women suffer from cardiovascular disease;
WHEREAS, heart disease is the #1 cause of death for U.S. women, killing hundreds of thousands of women each year;
WHEREAS, in _________________ (enter state), ____________(see table) out of every 100,000 women die each year.
WHEREAS, women under age 59 more likely to die after their first heart attack than men—42 percent of women who have heart attacks die within one year, compared to 24 percent of men;
WHEREAS, women can see tremendous benefits from healthy lifestyle changes;
WHEREAS, preventing and controlling risk factors—high blood pressure, high LDL cholesterol—can help to improve women’s health;
WHEREAS, many women are unaware that heart disease is their greatest health risk, and many women who die from coronary heart disease have no previous symptoms;
WHEREAS, awareness of the risks, symptoms and methods of prevention can help women live heart-healthier lives;
NOW, THEREFORE, I ____________________________ do hereby proclaim ___________________ as National Wear Red Day with hopes of raising awareness of the impact of heart disease on women and encouraging women to learn more about their risks in order to take necessary steps to avoid the disease.

American Heart Month

WHEREAS, 49 percent of all Americans have one of three key risk factors for heart disease;
WHEREAS, heart disease kills more than 600,000 Americans each year;
WHEREAS, heart disease is the number one cause of death for men and women;
WHEREAS, women under age 59 more likely to die after their first heart attack than men—42 percent of women who have heart attacks die within one year, compared to 24 percent of men;
WHEREAS, women can see tremendous benefits from healthy lifestyle changes;
WHEREAS, preventing and controlling risk factors—high blood pressure, high LDL cholesterol—can help to improve women’s health;
WHEREAS, many women are unaware that heart disease is their greatest health risk, and many women who die from coronary heart disease have no previous symptoms;
NOW, THEREFORE, I ____________________________ do hereby proclaim February as Heart Month in _____________________ (enter state) with hopes of raising awareness of the impact of heart disease and encouraging residents to learn more about their risks in order to take necessary steps to avoid the disease.
Bank of Tweets and Facebook Posts for American Heart Month

Twitter

#HeartDisease is leading killer of American women. #GoRedForWomen

Eat a #hearthealthy diet to lower risk of #CVD. #GoRedForWomen

Women under age 50 who have #heartattacks are more likely to die than men. #GoRedForWomen #AmericanHeartMonth

If you don’t smoke, maintain a healthy weight and control blood sugar, blood pressure and cholesterol, you can cut your risk of #heartdisease and add 10 years to your life. #GoRedForWomen #AmericanHeartMonth

Know your risks for #heartdisease. #GoRedForWomen #AmericanHeartMonth

Show your support for women’s health, #GoRedForWomen.

#CVD is leading cause of death for African-American women, killing more than 48,000 annually. #GoRedForWomen

Symptoms of #heartattack are different in women and men. #GoRedForWomen #AmericanHeartMonth

Early diagnosis and treatment of #CVD has saved millions of lives. #GoRedForWomen #AmericanHeartMonth

Facebook

The key risk factors for heart disease are high blood pressure, high LDL cholesterol and smoking. Diabetes can put people at a higher risk for heart disease, as can being overweight or obese, having a poor diet, being physically inactive and using alcohol excessively. If you don’t smoke, maintain a healthy weight and control blood sugar, blood pressure and cholesterol, you can add 10 years to your life.

The National Institutes of Health estimates 1.6 million lives have been saved since 1977 through early diagnosis and treatment. Reducing the number of risk factors has been credited with around 44 percent of the drop in heart disease deaths from 1980 to 2000.
ABOUT WOMEN IN GOVERNMENT

Mission Statement
Women In Government Foundation, Inc., headquartered in Washington, D.C., is a national non-profit, non-partisan organization of women state legislators that provides leadership opportunities, expert forums, and educational resources to address and resolve complex public policy issues to all 1,808 women state legislators.

Vision
Women In Government leads the nation with a bold, courageous and passionate vision that empowers and mobilizes all women legislators to effect sound policy.

History
Women In Government is soon to enter its 29th year. Since its founding, WIG has successfully implemented leadership and educational activities to support informed policy decisions at the state level. With over 28 years of experience working with state legislators, state agency representatives and the public, Women In Government proudly hosts educational conferences, state briefings, and other policy events annually to address the nation’s public policy issues.

Women In Government ensures that members and partners are provided with up-to-date publications and resource materials on cutting-edge policy topics. Beginning in 2004, Women In Government launched Policy Resource Centers that provide educational materials and resource tools, including legislative toolkits, while identifying important policy issues and supporting state legislative activity.

Women In Government’s Board of Directors is composed of 13 female state legislators who guide the organizational activities, help recruit new members and provide support to implement WIG’s strategic action plan. The Board is made up of both Democrats and Republicans, reflecting Women In Government’s non-partisan nature.

Through the support of sponsors, including corporations, foundations, and state and federal grants, Women In Government provides its members with legislative scholarships. These scholarships provide conference participants with opportunities to hear presentations from nationally noted expert speakers, receive comprehensive issue-based information and network with fellow policymakers, sharing best practices and developing policy solutions.