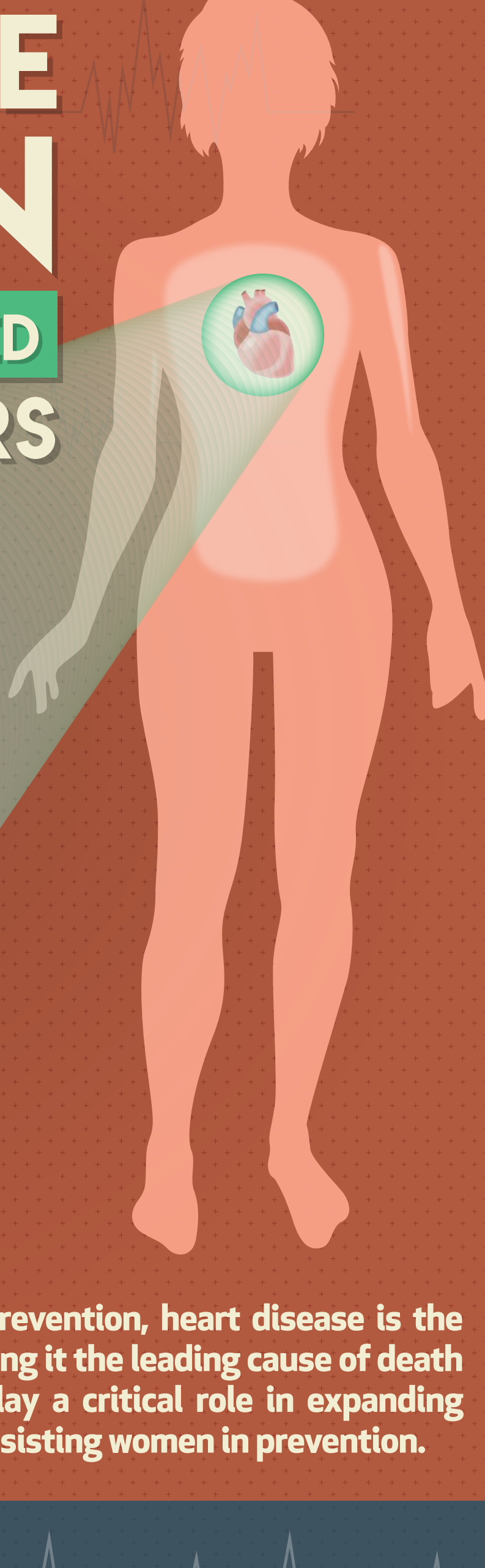


# HEART DISEASE IN WOMEN AND THE ROLE OF ADVANCED NURSE PRACTITIONERS

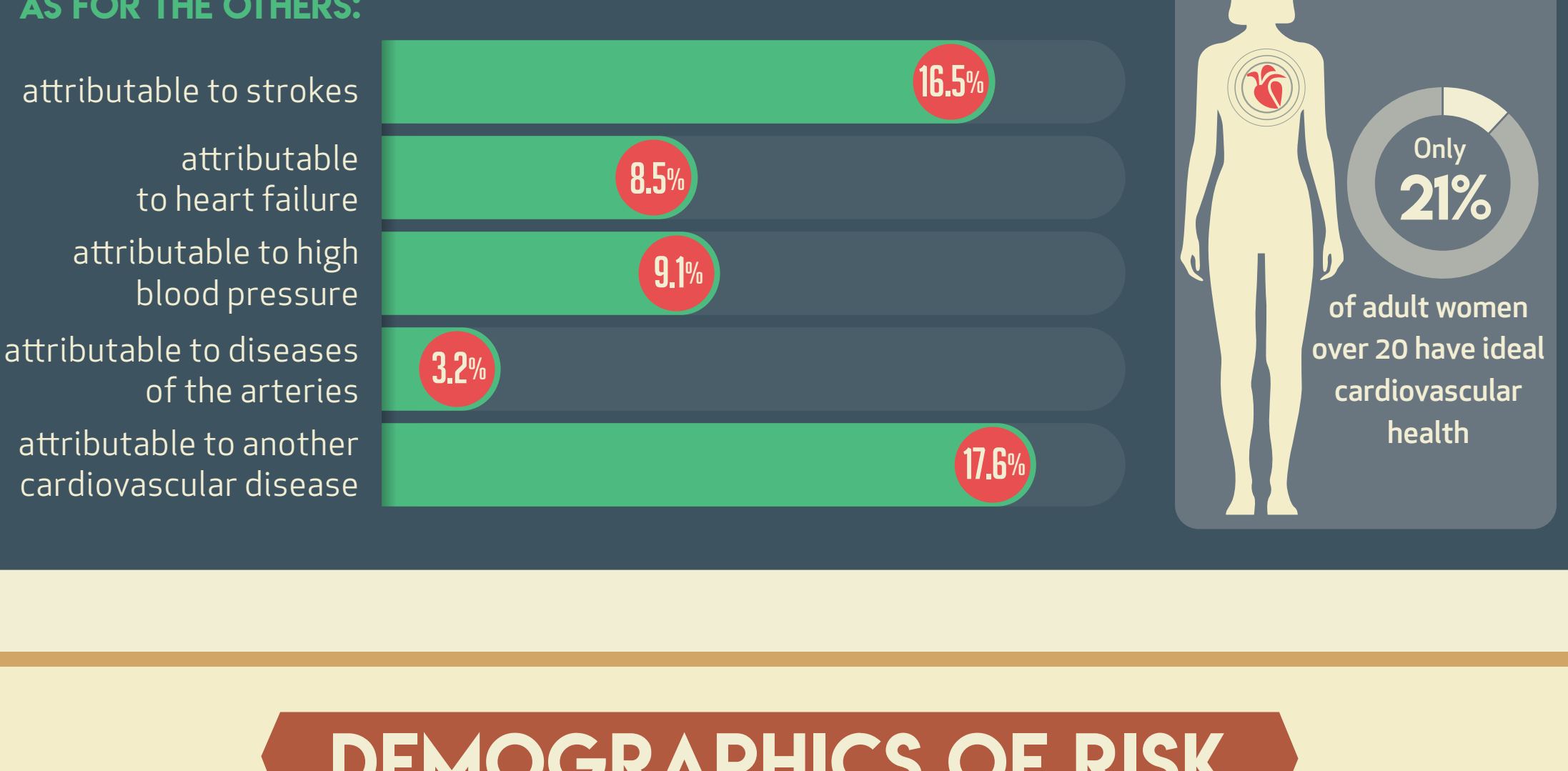


Heart disease was long considered a condition that afflicts men more than women. (It's been known for a long time that women are greatly affected.MB)

But according to the Centers for Disease Control and Prevention, heart disease is the cause of about one in every four U.S. female deaths, making it the leading cause of death in the U.S. for women. Advanced nurse practitioners play a critical role in expanding awareness of the risk of heart disease in women and assisting women in prevention.

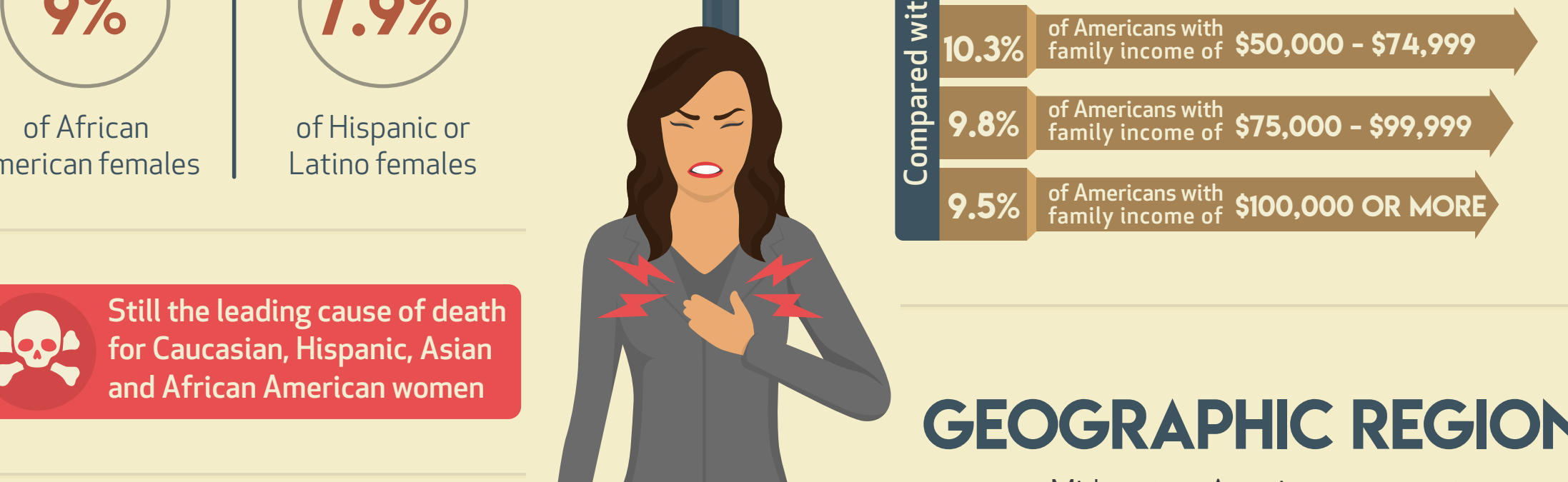
## 1 HEART DISEASE PREVALENCE IN US WOMEN

### PREVALENCE



The majority of these deaths are attributed to coronary heart disease (45.1%).

**AS FOR THE OTHERS:**



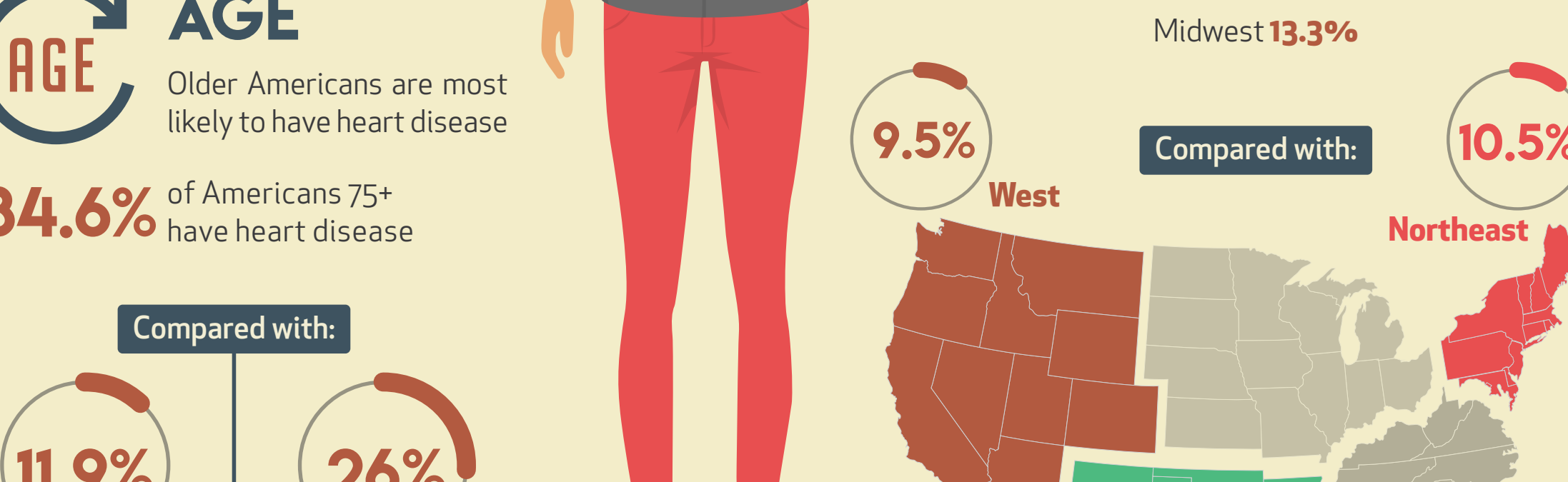
Only **21%** of adult women over 20 have ideal cardiovascular health

## DEMOGRAPHICS OF RISK

**RACE** Caucasian females have the highest prevalence of heart disease (**10.7%**)

**INCOME** Americans with lower incomes are more likely to have heart disease

**14.2%** of Americans with family income of less than **\$35,000** have heart disease



**AGE** Older Americans are most likely to have heart disease

**34.6%** of Americans 75+ have heart disease

**11.9%** of Americans **45-64**

**26%** of Americans **65-74**

**POPULATION DENSITY** Americans living outside of major metropolitan areas are more likely to have heart disease

**4.2%** of Americans living in non-metropolitan areas have heart disease

**10%** living in large metropolitan area (population of 1M or more)

**11.2%** living in small metropolitan area (population of less than 1M)

**GEOGRAPHIC REGION** Midwestern Americans are most impacted by heart disease

Midwest **13.3%**

West **9.5%**

Southwest **10.6%**

Northeast **10.5%**

## PERCEPTION OF DISEASE

Only **54%** of women are aware that CVD is the leading cause of death in women

**45%** Less than half, 45%, of women consider themselves knowledgeable about heart disease



## 2 SYMPTOMS

BECAUSE SYMPTOMS OF A HEART ATTACK CAN SHOW UP AS EARLY AS ONE MONTH BEFORE, WOMEN SHOULD BE ON THE LOOKOUT FOR:



## RISK FACTORS

**SMOKING** Smoking increases cardiovascular disease risk in women **68% - 88%**, depending on age

Among women smokers ages 40-49, **88%** of coronary heart disease was attributable to smoking

**81%** for women smokers **50-59**

**71%** for women smokers **60-69**

**68%** for women smokers **70+**

**EXERCISE LEVELS** Low levels of physical activity have been repeatedly shown to increase cardiovascular disease risk and mortality

**DIET** Inadequate dietary factors (see below) were associated with 45.4% of deaths from heart disease, stroke and Type 2 diabetes

The highest proportions of mortality were related to:

- Excess sodium intake
- Insufficient intake of nuts and/or seeds
- High intake of processed meats
- Low intake of seafood omega-3 fats

**AGE** As noted above, older Americans are more likely to have heart disease

**CHOLESTEROL LEVELS** Prolonged high cholesterol levels are associated with higher coronary heart disease risk

**16.5%** Adults with 11 to 20 years of high cholesterol had an overall risk of 16.5%

**FAMILY HISTORY** Siblings of patients with CVD have about a 40% increased CVD risk

**40%** Children of parents with premature (before 37 weeks) have a 40% increased risk of developing CVD

**8.1%** risk for adults with 1 to 10 years of high cholesterol

**4.4%** risk for those without high cholesterol

**OTHER FACTORS:** High blood pressure, Alcohol intake, Stress levels, Overweight and obesity

## FACTORS SPECIFIC TO WOMEN

**Pregnancy complications and conditions** Women with hypertension during pregnancy have:

**2.2**-times higher risk of developing CVD than those without it

**40%** Women who delivered prematurely (before 37 weeks) have a 40% increased risk of developing CVD

**Menopause** A decline in the hormone estrogen is thought to increase heart disease risk among post-menopausal women

Estrogen is believed to have a positive effect on blood flow and circulation

Changes that naturally occur with menopause, including:

- Higher blood pressure
- Increased LDL cholesterol and decreased or stable HDL
- Increased levels of triglycerides or fats in the blood are correlated with increased CVD risk (needs no bullet)

## 3 ROLE OF ADVANCED NURSE PRACTITIONERS IN PREVENTING HEART DISEASE IN WOMEN

### SCREENING AND PREVENTATIVE MEASURES

Advanced nurse practitioners can order a number of screenings and tests for CVD, but no single test can diagnose the condition

<p><b>CHEST X-RAY</b> Provides pictures of the organs and structures inside the chest. Exposes signs of heart failure, lung disorders and other causes of symptoms not related to CVD</p> <p><b>CORONARY ANGIOGRAPHY</b> Uses dye and special X-rays to reveal the insides of coronary arteries and blood flow patterns</p> <p><b>ECHOCARDIOGRAPH</b> Uses sound waves to create a moving image of patient's heart. Displays the size and shape of the heart, condition of chambers and valves, areas of poor blood flow, heart muscle issues and previous injuries to the muscle</p>	<p><b>BLOOD TEST</b> Measures levels of fats, cholesterol, sugar, and proteins in the blood</p> <p><b>ELECTROCARDIOGRAM (EKG)</b> Measures the heart's electrical activity, the speed of the beat and its rhythm (steady or irregular). Can recognize signs of damage or a previous heart attack</p> <p><b>STRESS TEST</b> Identifies:</p> <ul style="list-style-type: none"> <li>Abnormal changes in heart rate or blood pressure</li> <li>Shortness of breath or chest pain</li> <li>Abnormal changes in the heart's rhythm or electrical activity</li> </ul>
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### DISEASE MANAGEMENT TECHNIQUES

Advanced nurse practitioners can prescribe and educate patients about CVD treatments

**RECOMMENDED LIFESTYLE CHANGES INCLUDE:**

- Heart-healthy diet
- Weight management
- Stress management
- Increased physical activity
- Smoking cessation

**PRESCRIBED MEDICATIONS CAN HELP TO:**

- Lower cholesterol
- Decrease the chance of sudden heart attack
- Lower blood pressure
- Prevent blood clots
- Prevent or delay the need for a stent or percutaneous coronary intervention (PCI) or surgery, such as coronary artery bypass grafting (CABG)
- Reduce the heart's workload and relieve coronary heart disease symptoms

**SURGICAL OPTIONS** Percutaneous Coronary Intervention or angioplasty PCI is a nonsurgical procedure that uses a balloon to open blocked or narrowed coronary arteries by compressing plaque

**CORONARY ARTERY BYPASS GRAFTING** CABG is a surgery that uses arteries or veins from other areas of the body to bypass narrowed coronary arteries

**CARDIAC REHABILITATION** A medically supervised program designed to improve the health and well-being of heart disease patients

Rehabilitation includes:

- Education, counseling and training
- Personalized exercise training

### LIST OF RESOURCES AND ORGANIZATIONS AVAILABLE TO SUPPORT AND EDUCATE WOMEN ON RISKS

A number of organizations can help educate women on the risks, symptoms and management of CVD



## CONCLUSION

American women need to be aware of their unique risks for CVD. They have different risk factors and symptoms than men. Advanced nurse practitioners play a vital role in identifying lifestyle changes for prevention, diagnosing the condition and recommending the best treatment plan for heart disease in US women.