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# IMPROVING CARDIOVASCULAR HEALTH IN LOW SOCIOECONOMIC STATUS WOMEN THROUGH THE VERMONT YOU FIRST PROGRAM

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Preceptor: Dr. Whitney Calkins

# PROBLEM

- ▶ Cardiovascular disease (CVD) is the leading cause of death among men and women in the United States and across the world. It is estimated that approximately one in three female deaths are due to CVD. Clinically, the risk of CVD is often underestimated in women due to the idea that women are protected against CVD and often present “atypically”. <sup>1,2,3</sup>
- ▶ The burdens of CVD also vary based on socioeconomic status (SES), with lower SES groups taking on a higher morbidity and mortality related to CVD. <sup>4</sup>
- ▶ This uniquely puts low SES women at particular risk. Previous work has shown that low income in women is significantly associated with increased risk for sudden cardiac death, non-sudden cardiac death, and non-fatal myocardial infarction. <sup>5</sup>
- ▶ Lifestyle changes and risk factor modifications before CVD sets in can reduce the risk of CVD by 80%. This puts family medicine in a crucial position in decreasing the impacts of CVD in our communities. <sup>1</sup>
- ▶ CVD represents the second leading cause of death among Vermonters, with 8% of Vermonters being diagnosed with CVD. <sup>6</sup>

# PUBLIC HEALTH COST OF CVD

- Between 1996 and 2015, annual spending on adult CVD increased from \$212 billion to \$320 billion. Public insurance covered about 54% of this cost, with private insurance and out of pocket payments covering the rest. <sup>7</sup>
- The American Heart Association estimates that on the current trajectory, by 2035 spending on CVD could be as high as \$1.1 trillion per year. <sup>8</sup>
- In Vermont, patients with CVD are significantly more likely to be covered by public insurance than those without CVD (74% vs 40%) <sup>9</sup>



# COMMUNITY PERSPECTIVE

Dr. Sherrie Khadanga, MD Cardiologist at UVMMC

- “Enough focus or attention hasn’t been given toward women’s cardiovascular health.”
- “What we are noticing in recent years with the trend is that women are presenting with a STEMI at an earlier age than what it was 10 years ago. And why is that? Perhaps it is due to stress and underlying cardiovascular risk factors.”
- “The takeaway from the research paper that we did was that women who are of low SES, in particular if they are smokers, are the most vulnerable compared to any other type of patient population.”
- “The biggest challenge I’ve noticed is in terms of diet. In this country, in order to be healthy you have to pay more.”

38 year old female patient at UVMMC South Burlington Family Medicine who qualifies for the You First program

- “Finances are the big one [obstacle to achieving optimal cardiovascular health]. I can’t afford to join a gym.”
- “The price of food is horrible. I find the only affordable options are less healthy.”
- “I am interested in the You First program helping cover my gym membership.”



# INTERVENTION: YOU FIRST

You First is a program through the Vermont Department of Health

It is designed to help low-income women with breast cancer screening, cervical cancer screening, and heart disease screening.

In addition to screening, the program offers lifestyle perks to help prevent CVD such as fitness memberships, access to health coaches, weight loss programs, and coupons to local farmers markets.

Criteria for joining the program:

- You live in Vermont
- You are at least 21 years old
- You have (or have had) breasts or a cervix, or need preventative breast or cervical cancer screening
- You meet the income guidelines of the program

# RESULT

I have placed You First information sheets in the waiting area at UVMMC Family Medicine South Burlington. This is meant to make patients aware of the program.

I have created an information sheet about You First that will be shared with the providers at UVMMC Family Medicine South Burlington. This outlines some findings from research done through the cardiology department at UVMMC and shares information about who can qualify for the You First program and what the program has to offer.

I have created a dot phrase in EPIC that can easily be put into patient instruction messages. This will provide patients with some brief information about what You First has to offer and where they can find more information, including the application.

# EFFECTIVENESS AND LIMITATIONS

## Effectiveness:

- You First is an effective way to address some of the financial obstacles facing women of low SES
- Since this intervention is largely aimed at preventing CVD, it will take many years before knowing if this intervention has been effective.
- In the short term, the effectiveness of this intervention could be determined by individual providers who help their patients find this program.

## Limitations:

- Ability to afford resources that help improve cardiovascular health is not the only obstacle that many low SES women face. While taking a step forward in addressing the financial aspect of this issue, this intervention does not address many of the other obstacles of low SES women.
- Improving awareness of this program does not ensure that women will participate in it.



# FUTURE DIRECTIONS

The main goal of this project is to address some of the barriers to low SES women achieving optimal cardiovascular health. You First helps address the financial barrier, but low SES women face other challenges to achieving optimal cardiovascular health:

- Access to transportation
- Access to childcare
- Low health literacy

Addressing any of these or other challenges would take another step forward in improving the ability of low SES women to improve their cardiovascular health.



# REFERENCES

1. McClellan M, Brown N, Califf RM, Warner JJ. Call to action: Urgent challenges in cardiovascular disease: A presidential advisory from the American Heart Association. *Circulation*. January 2019.
2. Garcia M, Mulvagh SL, Merz CNB, Buring JE, Manson JE. Cardiovascular disease in women. *Circulation Research*. 118:1273-1293. 2016.
3. Maas AHEM, Appelman YEA. Gender differences in coronary heart disease. *Netherlands Heart Journal*. 18(12): 598-602. 2010.
4. Schultz WM, Kelli HM, Lisko JC, Varghese T, Shen J, Sandesara P, Quyyumi AA, Taylor HA, Gulati M, Harold JG, Mieres JH, Ferdinand KC, Mensah GA, Sperling LS. Socioeconomic status and cardiovascular outcomes. *Circulation*. 137:2166-2178. 2018.
5. Kucharska-Newton AM, Harald K, Rosamond WD, Rose KM, Rea TD, Salomaa V. Socioeconomic indicators and the risk of acute coronary heart disease events: Comparison of population-based data from the United States and Finland. *Annals of Epidemiology*. 21 (8):572-579. 2011
6. Vermont Department of Health. Cardiovascular Disease in Vermont. 2017
7. Birger M, Kaldjian AS, Roth GA, Moran AE, Dieleman JE, Bellows BK. Spending on cardiovascular disease and cardiovascular risk factors in the United States: 1996-2016. *Circulation*. 144:271-282. 2021.
8. American Heart Association. Cardiovascular disease: A costly burden for America: Projections through 2035. 2017.
9. Vermont Department of Health. Heart Disease and Diabetes Surveillance. 2023.