

Heart Disease in Alameda County

Carolina Siliezar, Tracy Tud, Silvia Sidor, Fern Villarosa, Dan O’Leary

Coronary Artery Disease


Coronary artery disease (CAD) is the most common type of heart disease in the U.S. CAD occurs when there is a build up of cholesterol plaque inside the coronary artery walls. As the build up grows, the heart muscle can’t get the blood or oxygen it needs. This can lead to chest pain: angina, or in case of a complete cut off of blood supply: heart attack. CAD can also weaken the heart and contribute to heart failure and arrhythmias. CAD related hospitalizations in Alameda County

Epidemiology

- Heart disease is the leading cause of death in the U.S., resulting in about one in every four deaths.
- Men have higher mortality rate than women.
- Heart disease is the leading cause of death among whites and African American.
- CAD-related hospitalizations in Alameda County: 233 per 100,000 people.
- There were 64 heart disease related deaths per 100,000 from 2014 to 2016. www.healthyalameda.com (2018).

Public Health Nursing Interventions

Public Education on prevention, exercise, nutrition, alcohol and smoking	Blood Pressure and Cholesterol Screening in local clinics and hospitals
American Heart Month February 2020 Awareness of symptoms of a Heart Attack	Alameda Public Health Free Blood Pressure Screenings
Better U Women's Health Education Program for those over 25	Million Hearts Initiative aim to reduce tobacco use and lower sodium consumption by 20%
YMCA of the USA monitoring and preventing high blood pressure	Rethink Your Drink Campaign reducing sugary drink consumption

<p><i>Modifiable Risk Factors</i></p> <ul style="list-style-type: none"> Unhealthy Diet Physical Inactivity Hypertension Excess Weight/Obesity Tobacco Use Abnormal Cholesterol Raised Blood Glucose/Diabetes 	<p><i>Non-modifiable Risk Factors</i></p> <div style="border: 1px solid white; border-radius: 50%; width: 100px; height: 100px; margin: 0 auto; display: flex; align-items: center; justify-content: center;"> <div style="text-align: center;"> <p>Age</p> <hr style="width: 50%;"/> <p>Gender</p> <hr style="width: 50%;"/> <p>Family History</p> </div> </div> 
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Collaboration

Study One: A Public Health Framework to Improve Population Health Through Health Care and Community Clinical Linkages: The ASTHO/CDC Heart Disease and Stroke Prevention Learning Collaborative.

31 state and territorial public health agencies participated, focusing on a framework of four systems change levers, finding the general population undiagnosed with hypertension, uncontrolled hypertension, or both. These approaches included partnering with leadership from traditionally marginalized communities, such as the Choctaw Nation of Oklahoma.

The ASTHO/CDC Heart Disease and Stroke Prevention Learning Collaborative provided support to the state and territorial agencies, in an effort to improve hypertension diagnosis in the identified vulnerable population. The collaboration occurred over a 5 year period. Stakeholders included public health care agencies, health care providers, clinical quality improvement organizations, health information technology experts, pharmacists, public and private payers, and local health departments.

The interventions resulted in an improvement of hypertension control rates of 18.7% across centers in just two years.

Study Two: Million Hearts: Key to Collaboration to Reduce Heart Disease

Million Hearts initiated educational classes imparting the importance of healthy meal choices and preparations. The extension promoted cultural adaptations towards food preferences and meal preparations resulting in modification of behaviors.

Low income rural populations in Ohio, lacked knowledge and understanding of how to implement these behavioral changes.

As a result, half of the respondents increased their knowledge of sodium intake and the DASH diet, approaches to reducing hypertension. One-fourth of the respondents improved their knowledge of heart healthy foods, the effects of cholesterol, and positive ways to cope with stress.

Discussion

In Alameda County, the rate of coronary heart disease (CHD) hospitalizations has decreased in the last 10 years. Although hospitalization rates vary by city, Hayward has the highest rate of CHD hospitalization, at a rate of 492:100,000.

Males have a higher hospitalization rate than women. To help manage their health and prevent CHD in the community of Hayward, health literacy assessments should be done so appropriate educational materials on the health related topics can be conducted and assimilated into the community.

Educational materials should be in plain and simple language, as appropriate for the audiences. Information should be organized, understandable, and void of technical or medical terminology.

References

- www.healthyalameda.com
- Felipe RA, Plescia M, Peterman E, Tomlin H, Sells M, Easley C, et al. (2019, August 26). *A Public Health Framework to Improve Population Health Through Health Care and Community Clinical Linkages: The ASTHO/CDC Heart Disease and Stroke Prevention Learning Collaborative*. *Prev Chronic Dis* 2019;16:190065. DOI: <http://dx.doi.org/10.5888/pcd16.190065> external icon.
- Brinkman, P. (2016, October). *Million Hearts: Key to Collaboration to Reduce Heart Disease*.