Assessment of Heart Disease and Implementation of Pertinent Interventions in Westchester

County

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Abstract

Cardiovascular disease has a high prevalence across the country. It adds an enormous toll to the already exorbitant cost of healthcare in this country. Addressing cardiovascular disease on a community level is essential. Cardiovascular disease is the leading cause of death in Westchester County. The county covers a large area with a very diverse population. Proper planning, interventions and evaluation methods will have to address the needs of all populations based on disparities. It is important to educate the community about the prevention, treatment and management of cardiovascular disease. Primary prevention goes a very long way in reducing hospitalizations and emergency room visits. Early screening and education about mitigating the risk factors that lead to cardiovascular disease such as smoking, high blood pressure, high cholesterol, poor dietary habits and sedentary living can lead to a significant decrease in the prevalence of cardiovascular disease in the county. A retrospective data collection and analysis will have to be performed to evaluate the effectiveness of interventions.

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Geographic Community

Westchester County has a population of 968,000 people. The median age of this

population is 40.9 and the median household income is $94,811. The median household income

in Westchester County has been rising steadily. The largest ethnic group in Westchester county

is Non-Hispanic White (52.9%). Other major ethnic groups in the county are as follows: Non-

Hispanic Black or African American (13.5%), White Hispanic (10.3%), Asian Non- Hispanic

(6.05%) and other Hispanic (12.2%). The residents who speak a language that is not English

comprise 34.6% of the population. 89.7% of the population is US citizens. The largest

universities in the country are Mercy College, SUNY Westchester Community College and Iona

College. The median property value in Westchester County is $560,800. The homeownership

rate in the county is 60.6%. Most people in the county commute to work alone in their cars. The

average commute time is 33.9 minutes. The average family in the county owns seizure. The

county is bordered by Fairfield County (Connecticut), Bergen County (New Jersey), Bronx

County (New York), Nassau County (New York), Putnam County (New York) and Rockland

County (New York). The most common foreign languages spoken in Westchester County are

Spanish, Italian and Chinese (Mandarin and Cantonese included). Westchester County has a

large population of veterans who served during the Vietnam War. The largest industries in

Westchester County are healthcare, social assistance and educational services. The highest

paying industries in Westchester County are finance, insurance and real estate (n.d). This paper

will be utilizing the nursing process as a conceptual framework (assessment, diagnosis, planning, intervention, evaluation).

Assessment

Heart disease is the number one cause of death in Westchester County, accounting for 31% of all annual deaths in the county. Total deaths from heart disease are 60% higher than the next leading cause of death which is cancer. Heart disease has been pervasive across the various ethnic populations in the county. Coronary heart disease and congestive heart failure were the leading diagnoses. Despite the common myth that heart disease is an old person's disease, Westchester County recorded 329 premature deaths (under age 65) related to heart disease. Women accounted for 54 out of 100 deaths related to heart disease in the county. Heart disease accounted for one third of the mortality rate among Non-Hispanic White and Black individuals in the county. It also accounted for one-quarter of the mortality rate among the Hispanic population. Non Hispanic African Americans and Hispanic individuals are more likely to die prematurely from heart disease (before the age of 65). 14% of all hospital admissions in the county were related to heart disease, stroke or other circulatory disease being a primary diagnosis. Over 50% of all hospitalizations in Westchester County had a minimum of one diagnosis related to circulatory disease. Emergency room visits related to cardiovascular disease were accounted to be 29,586 (10% of all emergency room visits in the county). The most common complaint among individuals taken to the Emergency Room was chest pain. The most common risk factors associated with cardiovascular disease in the county were obesity, lack of physical activity, high blood pressure and diabetes. Obesity was seen to be more prevalent in the county among individuals aged 35-44 and among those who identified as Non-Hispanic Black. Adults aged 35-44 who identified as Hispanic were the group that most often reported no

physical activity within the past thirty day. Diabetes was seen to be most prevalent among individuals in the age group of 65+ who identified themselves as Non-Hispanic Black (2020).

Problem Statement/Diagnosis

The prevalence of heart disease and its associated complications is very high in Westchester County accounting for greater than 50% of all hospitalizations

Planning

It is important to plan interventions that can be implemented within the community effectively. The planned interventions must also reach out to all ethnic groups within the community due to Westchester County being diverse in its population. The interventions will have to be implemented and then evaluated using an efficient method to ensure benefit in the community throughout all ethnic groups. A multi intervention program will have to be put in place for effective change to occur across the community. This type of program can be difficult to implement. It can also be difficult to determine and evaluate which particular intervention was most effective. A combination approach is deemed best in tackling a problem as pervasive as heart disease in Westchester County. An understanding of the community must first be obtained. The needs and priorities of the community must be assessed first. It is also important to closely collaborate with the members of community members of each ethnic background. The overall goal of the interventions will be to increase public awareness of risk factors for cardiovascular disease, increase public awareness of community resources that provide treatment, management and prevention care and to increase public knowledge regarding how to prevent, treat and manage cardiovascular disease (Parker & Assaf, 2005).

Interventions

Converging primary prevention modalities at the point of care is an essential step. Individuals within the county seek routine medical attention through a variety of sources and places. It is important to have mechanisms put in place for primary prevention and screening at all these points of contact. The most effective way to coordinate this type of strategy is through the use of a clinical decision support system, which is a computerized information system which is designed to help health care providers choose modalities based on patient specific information. This type of system provides individualized care which is essential considering the diversity of Westchester County. The system alerts healthcare providers to screen for cardiovascular risk factors. It also provides healthcare providers with patient specific information that is necessary to assess whether the present risk factors will put the patient at a significant risk of developing heart disease in the future. Furthermore, it alerts the healthcare providers during patient visits when these risk factors are elevated at any given time. Requiring all primary care providers to use some form of a clinical decision support system to help address risk factors for cardiovascular disease will be a great primary prevention strategy to implement throughout the county (2019).

Community engagement workshops allow the public health team to engage directly with the community and create awareness and spread awareness to as many people as possible. It would be very beneficial to run community engagement workshops throughout the county. Since Westchester County covers a large area, a mobile community engagement workshop may best suit the county's geographical needs. The main goal of the community engagement workshops will be to reach out to the populations that are at highest risk of developing cardiovascular disease. The campaign messaging of the community workshop will be critical in deciding the type of awareness and message that is spread throughout the community. It will also be necessary to have the community engagement workshop conducted in different languages to

address the diverse needs of the community. The engagement workshops can include

interventions such as general awareness teaching regarding risk factors and necessary behavioral

changes, free blood pressure screenings, referrals for follow up for those at risk, finding

pathways to healthcare for those who lack access and the distribution of education materials in

several languages (2019).

Additionally, the county will have to undertake programs and projects that help reduce

risk factors for cardiovascular disease. A smoking cessation initiative within the County will reap

great benefits. A nutrition awareness campaign which educated community members about the

type of diet that is most beneficial in avoiding cardiovascular disease is also important. The need

to increase physical activity across the community will require the county to improve its parks

and other outdoor activity centers. Since winters can be harsh and outdoor activities will be

limited, the county can greatly benefit from establishing indoor activity centers as well to address

inactivity and sedentary lifestyles during the winter months (2020).

Evaluation

There are several tools that can be used to evaluate the effectiveness of the interventions

against cardiovascular disease. Data can be gathered retrospectively about the prevalence of risk

factors among the population (hypertension, high cholesterol, diabetes, tobacco use, unhealthy

diet, physical inactivity) and whether these risk factors were addressed appropriately, avoiding

an increased prevalence in cardiovascular disease. Additionally, data will have to be gathered

regarding the number of hospitalizations related to cardiovascular disease including the number

of emergency room visits. A survey of community members across various ethnic groups can

also be conducted to learn whether knowledge regarding risk factors, prevention and

management of cardiovascular disease has improved as a result of the interventions (2020).

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