Epidemiology Assignment

Elizabeth

Florida National University

Nursing Department

BSN Program

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Prof. Eddie Cruz, RN MSN

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 The Healthy People 2020 initiative consisted of national objectives based on evidence-based factors achieving which in the next 10 years would lead to a significant improvement in the overall health of Americans. In this regard, the initiative helped identify what the national health improvement priorities were and then tailoring programs that addressed the various determinants of disease, health, and disability, along with increasing public understanding and awareness. The program thus enabled various counties, cities, and states to set standard goals and objectives and to engage various stakeholders in strengthening policies and implementing strategies based upon concrete evidence (ODPHP, 2014). The paper will discuss three different community health-based problems in Houston County, Georgia (Zip 31069) prioritizing them in order of need, and explore their epidemiology, their impact on the community, as well as strategies and efforts required to contain them.

 Houston County has a population of 147,570 residents and a territory of nearly 375 square miles. To provide the epidemiological data for the county, latest PRC surveys and data from the ‘Centers for Disease Control and Prevention’ CDC has been utilized. The data from these surveys and reports provided an indication of the health status of the country relative to health promotion objectives set forth by the Healthy People 2020 initiative. Among the different health issues in Houston county, access to healthcare services, prevention of cancer and diabetes take the leading priority among the various issues identified by PRC (2017).

# Access to Health Services

Providing access to quality and comprehensive healthcare is indispensable to achieve a higher quality of life for a community and to achieve health equity within it. Access to healthcare becomes a primary factor in a range of other health-based issues impacting the overall social, physical and mental health status of the community. It can be critical in the prevention of disability and disease, treatment and detection of illness and improving life expectancy and overall quality of life. Access to healthcare consists of timely availability of personal health services, entry to the healthcare system, being able to find care providers, and access to a healthcare facility at a location where its services are needed.

In terms of access to healthcare, nearly 51.6% of adult residents in Houston County are covered by private insurance to access healthcare services; moreover, 12.3% are covered by Medicare or Medicaid while another 25% are covered by military benefits. Although coverage is nearly equal to national findings, however, the healthy people 2020 target is to have 100% coverage. A delay or difficulty in accessing healthcare was reported by 34.7% residents in a PRC (2017) survey in the year 2016-2017. Among the different barriers to healthcare, the rising costs of prescription medicine was the most significant for residents, among whom 14.3% found the costs too high to afford medication. Furthermore, the community is impacted by various barriers especially in accessing treatment for substance abuse, dental care, mental health, and specialty care. In terms of the primary care providers ratio, Houston County stands at 52 physicians for every 100,000 people (PRC, 2017). As a result of these barriers, the residents of the community find delays in getting adequate care and have many of their health needs unmet. Additionally, it creates difficulty in accessing preventive services which in turn increase financial burdens, especially in the case of preventable diseases. Hospitalizations thus can be prevented and save revenue.

In order to improve healthcare access for the citizens of Houston County, certain barriers to access must be addressed. These include: educating the community about the resources available to them by providing information to the uninsured, insured as well as lower-income persons on navigating through the healthcare system. It also includes advocating for sufficient quality and number of staff, including training healthcare professionals. Individuals who are uninsured or belong to lower income groups should be provided with further financial assistance, especially in preventive care (Khanassov, et al., 2016). Existing organizations that are providing quality healthcare services can be used for collaboration and support. Healthcare staff should be tasked to educate and assist patients with regards to providing proper resources and care.

# Cancer Prevention

Advances in cancer detection, treatment and research have led to a decline in death rates as well as incidence rates for most types. Nearly half of those diagnosed with cancer stay alive after 5 years of diagnosis; however, cancer still remains a leading cause of death nationally as well as in Houston County. A number of community guidelines are issued by the Georgia Public Health Department outlining the risk factors and lifestyle changes needed for effective prevention. The Healthy People 2020 guidelines suggest the promotion of a range of lifestyle changes in communities in order to reduce mortality rates further.

In Houston County, there were nearly 161.8 cancer-related deaths as per a population of 100,000 between 2013 and 2015. The age-adjusted annual average rates are similar to national rates and the state of Georgia. The Healthy People 2020 specified a target of 161.4 and lower; thus Houston Country is very close to achieving its overall target within the next few years. Furthermore, lung cancer remains the leading type of cancer diagnosed among residents of Houston County. Trailing behind lung cancer are breast cancer among women, prostate cancer in men and colorectal cancer. In terms of lung cancer rates, Houston Country surpasses the state rates in Georgia as well as the national average, whereas colorectal, breast and prostate cancer rates are similar to that of Georgia and the U.S. nationally. Nevertheless, the overall age-adjusted rates between the year 2009 to 2013 were higher in Houston County than the state and national averages, which implies that significant improvements were made to address the issue in the community, to help bring the overall average mortality rates close to the Healthy People 2020 targets (PRC, 2017). There still exists a lack of adequate access to cancer screenings for many individuals, which often leads to late diagnosis at stages that require advanced treatments that are difficult to afford.

To address the issue of higher lung cancer incidence, a range of environmental and behavioral changes are needed. Improved and subsidized access to cancer-screenings is required for early diagnosis with well-equipped centers to test different types of cancers. Furthermore, the community needs to strengthen and develop programs that provide more options for physical activity in schools, workplaces, parks and childcare environments. Moreover, nutrition and weight management initiatives, along with better access to healthy beverages and foods in educational settings, workplaces, and public places, are also vital for cancer prevention in order to ensure that healthy eating becomes a lifestyle. In addition, educational campaigns and programs that help improve breastfeeding duration, initiation and exclusivity must also be promoted within the community. To address tobacco consumption, counter-marketing through anti-tobacco campaigns that target adults and youth must be prioritized. For this purpose, different youth and school-based organizations must be involved in strategic planning efforts for tobacco prevention.

# Diabetes

Diabetes mellitus is a common condition that continues to increase globally as well as in the U.S. The overall rise in the number of people diagnosed with type 2 and type 1 diabetes, as well as earlier onsets of the disease, has led to serious concerns about the disease overwhelming existing health care systems and increasing the complexity of care involved therein. Minority populations are affected more by type 2 diabetes in the state of Georgia. Nationally, minority groups form the majority of patients in adolescents and children and nearly one fourth in the adult population.

In Houston Country, the average mortality rates attributed to diabetes are close to 25.9 death in a population of 100,000 people between the years 2013 to 2015. The average is higher from both the national average and Georgia's state average and fails to satisfy the target set by Healthy People 2020, which stands at 20.5 deaths. Similarly, mortality rates among minority groups are higher in Houston County as they are nationally. Nearly 18.3% adults in Houston County report being diagnosed with the disease, which is worse than the overall state figures for Georgia. Although, the trend has remained unchanged statistically since the year 2011, yet it remains one of the most prominent diseases in Central Georgia. A serious challenge for the community is the increasing number of diagnosis among youth populations. With rising incidence, along with overall obesity, the problem is compounded by a lack of endocrinologists per a 100,000 population (PRC, 2017).

There are numerous studies available that show that Type 2 diabetes can be delayed or prevented through effective lifestyle changes. Prevention efforts for this purpose can be targeted at a number of settings that includes, neighborhoods, schools, and worksites. The three steps to Diabetes prevention suggested by Healthy People 2020 are to be active, eat healthily and to lose weight. Along with these, blood glucose level monitoring is essential to aid individuals in adjusting their diets in order to manage their diabetes adequately and lower the risk of complications. Diabetes prevention programs can engage community health workers to improve weight-related outcomes and glycemic control for citizens who are at risk (DPH, 2016). Moreover, community-based lifestyle interventions can be developed for patients diagnosed with type 2 diabetes to support their dietary modification, improve glycemic control, help them with weight management and encourage regular physical activity. Educational programs that encourage lifestyle changes and offer counselling for people at risk are also important. School programs in this regard are known to be helpful in educating children about healthy eating and discourage them from adopting a sedentary lifestyle.

# References

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