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Chapter One – Introductionss

The intersection between marginalized or underserved groups and ~~nutrition or~~ diet-related disparities

~~Capstone~~ Focus ~~and Rationale~~

Good nutrition along with physical activity can help to maintain healthy weight. However, the benefits of good nutrition go way beyond weight. Improving the nutrition of individuals is extremely important and a major step in the prevention and management of noncommunicable diseases (NCDs). Over a prolonged period, poor nutrition can lead to chronic diseases such as obesity, heart disease, and diabetes. According to the Centers for Disease Control and Prevention (CDC), "these chronic diseases are the leading causes of death and disability in the United States." ~~(2)~~ This chapter proposes a focus on identifying diet related health disparities within the inequitable systems that are in place; and further examining how good nutrition can reduce the risk factor of certain NCD's.

In addition to helping reduce the risk of certain diseases, healthy eating aides in reducing high blood pressure, lowering cholesterol, improving the bodies' ability to fight off illness, and recover from injury. According to the Merriam-Webster dictionary, nutrition is defined as the act or process of nourishing or of being nourished. In this Capstone I will refer to nutrition in terms of the use of food for life, health, and growth.

Through good nutrition the body gets all the nutrients, vitamins, and minerals needed to function properly. A well-balanced diet is key to eating healthy. According to the ~~Office of Health Promotion and Disease Prevention~~U.S. Department of Agriculture**,** "The core

elements that make up a healthy diet include vegetables (of all types), fruits, grains, and protein”~~the American dietary guidelines state that “people should consume Nine to 11 servings of Grains, four to five servings of Vegetables, three to four servings of Fruits, and two to three servings of Protein daily” (3)~~**.** ~~Eating based on these guidelines constitutes a well-balanced diet.~~ **Regular physical activity along with healthy eating behaviors are linked to supporting an active, healthy, and longer life.**

Rationale

~~Typically~~Typically,~~,~~ **racial**~~,~~ **and ethnic minority groups experience diet-related disparities, and consequently tend to have poor dietary behaviors and patterns. These disparities are often defined as diets high in sodium and saturated fats, and low in fruits, vegetables, and whole grains.** There is a direct link between dietary costs and the relationship between the consumption of nutrient dense diet among socioeconomically disadvantaged groups. **The diet related inequalities created by socioeconomic factors** such as income, education, and access, **have contributed to risk behaviors** which lead to ~~such as~~ **poor nutrition.** ~~Over a prolonged period, poor nutrition can lead to chronic diseases such as obesity, heart disease, and diabetes. According to the Centers for Disease Control and Prevention (CDC), “these chronic diseases are the leading causes of death and disability in the United States.” (2) This chapter proposes a focus on identifying diet related health disparities within the inequitable systems that are in place; and further examining how good nutrition can reduce the risk factor of certain NCD’s.~~

Research Question

What are the root causes of diet-related disparities, and how can underserved people adopt the use of good nutrition as a means of preventive care to help reduce the risk of chronic medical conditions?

Definition of terms

Equity - the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment

Food streams - refers to the flow of foods from agricultural production, through processing and distribution channels, to the food that ends up on our plates

Food systems - systems which gathers all elements (environment, people, inputs, processes, infrastructures, institutions, etc.) and activities that relate to the production, processing, distribution, preparation and consumption of food, and the outputs of these activities, including socioeconomic and environmental outcomes.

Implicit bias ~~- any unconsciously held set of associations about a social group; also known as stereotyping. Implicit biases are the product of learned associations and social conditioning.~~

Inequities - lack of fairness or justice

Noncommunicable Diseases (NCDs) - also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental, and behavioral factors.

Nutrition Equity – the ability to access nutritious and culturally appropriate foods regardless of race, education, gender, employment, ability, or community. It involves identifying and removing barriers to achieve this goal.

Socioeconomics - (also known as social economics) is the social science that studies how economic activity affects and is shaped by social processes. In general, it analyzes how modern societies progress, stagnate, or regress because of their local or regional economy, or the global economy.

Socioeconomic status - Socioeconomic status is the social standing or class of an individual or group. It is often measured as a combination of education, income, and occupation. Examinations of socioeconomic status often reveal inequities in access to resources, plus issues related to privilege, power, and control.

Underserved - refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life.

Scope of Problem

Why does nutrition take a back seat when it comes to personal health care? For some, the transition is as simple as making a conscious decision to replace unhealthy

behaviors with ones that are conducive to a healthier lifestyle. Experts would advise swapping fats, changing beverages, and boosting fruits and veggies; however, for others the sustainability of these type of changes is more challenging. Unfortunately, "individuals experiencing socioeconomic disadvantages are less likely to adopt healthier behaviors regarding diet and physical activity" (Ball, 2015). The food people choose to eat is often influenced by many social and economic factors which include individual beliefs, preferences, and cultural traditions. Easy access to non-nutritious foods, as well as other circumstances such as lack of resources, lack of knowledge and low income can also lead to unhealthy eating habits. Ball (2015) states "The most important determinant of whether we lead a 'healthy long life" is where we sit on the social scale within society" (p.1).--Diet related disparities reflect differences in not only nutrition but also mortality, and disease within specific subgroups of populations.

Imbalances in food systems are major drivers of diet related inequities. These imbalances can restrict access to healthy foods by means of availability and affordability, and in some cases may lead to starvation for those without access to enough money. All humans have a right to access whole, healthy foods. An individual's food choices are limited to the types of foods available where they live, work, and shop. Food streams such as grocery stores, farmers markets, restaurants and schools are important determinants in understanding people's food choices. A wider availability and accessibility of local food systems that offer healthy options would aid in reducing diet related inequities.

The state of health disparities in the United States is a national crisis. Addressing the socioeconomic inequities in eating behaviors is necessary "given the disproportionate burden of ill health carried by people experiencing these disadvantages" (Ball, 2015).

Chapter Two – Historical Information Analysis

History of the Problem

The relationship between food and health has been recognized for over 2,000 years. Hippocrates taught that “the goal of medicine should be to ensure health through proper diet” (Halstead, 1998), as such healthy diets can optimize health.

Poor nutrition is a leading factor which contributes to increased risk of illness such as obesity, diabetes, and heart disease. The U.S. Department of Agriculture (USDA) states, "though poor nutrition affects every demographic, diet-related diseases hit harder among historically underserved communities." The lack of access to nutritious food (nutrition insecurity) impacts almost fourteen million American households. Imbalances in food systems play a major role in diet and can further affect broader outcomes such as nutrition and health inequities.

As recognized in the 1948 Universal Declaration of Human Rights, it is critical to highlight the concept of the human right to adequate food. Adequate food being defined as "all nutritional elements that a person needs to live a healthy and active life" which also implies that sufficient food is immediately available and accessible to all. "According to the Food and Agriculture Organization (FAO), more than one billion people are undernourished." This discussion ultimately leads to the exploration of food systems and food environments (i.e. stores, restaurants, schools, etc.) in place within marginalized communities and their direct correlation to an individual's ability to eat a healthy and sustainable diet. Food systems are producing food in ways that are not aligned with the sustainability of good health. Food environments which "are the connecting link between supply systems and demand systems" (Food systems and nutrition equity - Global Nutrition Report) also impact food decisions in several ways such as types of food availability, access to the food, affordability, and quality; just to name a few.

This is not to exclude the intersection of social categories such as race/culture, socioeconomic status (SES), and geography, which also influence the types and quality of food people are most likely to find available to them, and which are deemed culturally acceptable. These intersections create systems of oppression that directly influence health behaviors such as

dietary intake and food purchasing which further contribute to health disparities. The inequitable processes within the food systems ultimately result in unequal outcomes.

Causes

Food systems: Agriculture practices:

A deeper look at the relationship between food environments and health should begin with a review of global agriculture and its standards. As it relates to health, the main question is, is global food production aligned with nutritional guidelines? According to a 2018 research article "Results show that the global agricultural system currently overproduces grains, fats, and sugars while production of fruits and vegetables and protein is not sufficient to meet nutritional needs." (KC KB, Dias GM, Veeramani A, Swanton CJ, Fraser D, Steinke D, et al. (2018)

Averting a global food shortage was the focus following WWII. During this time the development of high yielding wheat and rice allowed for greater quantities of cereal to be produced which later became recognized as staple crop. While this development in global agriculture helped fight hunger and reduce social inequities of poverty; the emphasis on the production of a few select staple grains has led to the production of disproportionate amounts of fruits and vegetables, compared to the production of more energy-dense foods. Compared to nutritional standards the "supply of fruits and vegetables falls 22% short of the recommended amounts" (horticulture.ucdavis, 2017~~7~~8). The production of high-value crops such as fruits and vegetables are more labor intensive than cereals. Monetary investments in fruits and vegetables are extremely low in comparison to cereals and commodity crops (i.e. corn, soybeans). Based on research conducted by (horticulture.ucdavis, 2017~~7~~8), "the 2014 U.S. Farm Bill allocated $700 million for indirect spending on fruits and vegetables, while nearly $5 billion was spent on commodity crops". The lower production cost of cereal makes it much more attractive and

lucrative to farmers. As a result, more less nutrient dense foods are readily available and saturate food environments which ultimately cause over-consumption of these products and less fruit and vegetable consumption. These imbalances lend to the failure of global agriculture to provide a balanced diet, and presumably contribute to the current epidemic of obesity and diabetes.

Food environments:

With food systems being the main driver of diet and nutrition for individuals, food environments dictate consumer behaviors such as food consumption. The types of foods available in places where individuals make food decisions (i.e., supermarkets, restaurants, schools) are key factors in low consumption of fruits and vegetables. Inequities in food environments such as availability, affordability, and quality of foods have a direct impact on diet quality and consumer health. People tend to adapt to their environment which is often driven by their individual circumstances. Local supermarkets filled with less nutritious options, local markets offering diverse options which are healthier but too expensive, and consumers with no alternate means to access other food environments which may offer both healthier options at an affordable price. When healthy options are not readily available, people settle for foods higher in calories and lower in nutritional value.

So why is it that certain neighborhood markets predominantly offer less healthy items in comparison to others? It comes down to supply and demand. The key constraint to increased fruit and vegetable consumption is affordability. In some countries, it may take 40- 70% of household income to purchase good quality fruits and vegetables. If consumers cannot afford to purchase these items, markets will not stock them. The low demand has a direct impact on what food environments will make readily available, supply to the community. Ultimately the result is an

overabundance of consumption of low quality, less nutritious foods which lend to diet inequities and associated health outcomes experienced in marginalized and underserved communities.

Nutrition Education:

Good nutrition is an important factor in health and can significantly influence the risk of disease. Nutrition education is the most beneficial tool in the promotion of healthy eating and should start in medical school to give physicians the skills required to provide nutrition care confidently and concisely to patients. According to PhDs Crowley, Ball, Hiddink (2019), "A well-recognized gap exists between the nutrition knowledge, skills, and attitudes needed for nutrition care and the nutrition education provided to medical students." To help reduce such gaps, The Nutrition Academic Award (NAA) was founded in 1998 for the purpose of integrating nutrition education within the medical school curriculum. Unfortunately, this funding ended in 2005, but not before funding 21 medical schools and multiple achievements such as "a wide range of geographic representation and multidisciplinary expertise" (Horn 2006)

Despite the NAA's achievements and contributions towards the integration of nutrition education; it can be concluded that the nature of our medical care system is a direct result of the neglect and underrepresentation of nutrition education in settings which have access to large numbers of people and thus could potentially have the most impact (i.e., Early Childcare settings, schools, routine doctor visits, etc.) The availability of effective, clear nutrition counseling in the medical clinic setting would be a valuable tool to support the integration of nutrition care into routine physician appointments that could be used as an effective lifestyle intervention approach to lower health risks. This is a concern given the medical care delivery system is designed to provide care when things go wrong as opposed to being preventive oriented.

Consequences

With diet being one of the biggest drivers of health and well-being; what we eat matters. (Belanger et al., 2020) suggests “poor diet is the leading underlying cause of death, having surpassed tobacco use in related mortality in the United States”. Overall, research shows individuals in lower socioeconomic groups have reported less healthy dietary intakes such as lower fruit and vegetable consumption than those of higher socioeconomic groups. Diets high in sodium, saturated fat, and sugars contribute to higher rates of obesity and increase the risk of chronic diseases.

Groups residing in underserved communities experience disproportionate amounts of nutrition inequity and health disparities. These conditions contribute to a large quantity of these populations being sick more frequently, taking longer to recover from illness, increased instances of being hospitalized, and higher rates of chronic disease diagnosis. According to the Centers for Disease Control and Prevention (CDC, 2022), “fewer than 1 in 10 adolescents and adults eat enough fruits or vegetables”. The lack of consistent nutritious meals affects overall infant health and impair growth. Insufficient diets impact learning outcomes of school age children by contributing to the inability to focus, leading to poor memory and cognitive skills. Inadequate nutrition in adults adversely affects the physiological and mental capacity which can lead to stress, fatigue, and the inability to be productive in the workplace.

The long-term negative health consequences of an unhealthy diet are a major contributor to the global burden of disease and health inequities. People experiencing socio-economic inequalities are more likely to become obese and suffer from diet related diseases. The barriers to maintain healthy eating on a low income produce conditions of poverty by reducing economic potential. These outcomes continue to perpetuate a systemic cycle as it relates to nutrition and the underserved.

Role of Organizations, Policies, Practices, Funding

To reshape system dynamics that drive unhealthy food environments, multiple strategies are needed to help facilitate practices around healthy food production, supply, and intake. We need to transform food systems to lower the cost of nutritious foods for consumers, increase the availability and affordability of healthy diets, and eventually relieve the global burden of avoidable noncommunicable diseases. Ultimately, such strategies must be supported by a system which prioritizes health.

Organizations such as the World Health Organization (WHO) actively support the transformation of healthy food systems through “priority policy actions”. This support was recently demonstrated in 2021 when the WHO held a virtual event to discuss actions to be taken in food systems which can deliver better health and nutrition for all.

There are several development programs organized by the United Nations such as the UN Decade of Action on Nutrition. This program drives the commitment to eliminate malnutrition in all forms, everywhere through the use of sustainable policy implementation, programs, and increased investments. More information can be found on their site. Additionally, the 2030 Agenda for Sustainable Development which set goals which can only be met “when much greater political focus is devoted to improving nutrition”. Notably, the first three goals have been identified as “No Poverty”, “Zero Hunger”, and “Good Health and well-being”, but work is being done to advance progress of all 17 UN Sustainable Development Goals.

These ongoing initiatives require commitment and action. Action Networks have been established under the UN to help facilitate the much-needed change. These networks are

informal coalitions of countries aimed at accelerating and aligning efforts around specific topics linked to Nutrition. They facilitate the exchange of knowledge and good practices, successes, and challenges, and provide mutual support to accelerate progress with the final objective of improving food systems, diets, and nutrition for all through policies and legislation.

At a more local level, the Center for Disease and Control (CDC) help to improve healthy food access via state and community funding, training, and tools. Increasing healthier food offerings in food pantries and food service venues by Including nutrition guidelines in organizational policies and food contracts. Connecting people to healthier foods by addressing transportation gaps in communities and supporting farm-to-institution programs. Lastly, bringing partners together to Assist small retailers with purchasing healthy foods at lower costs by using cooperative buying agreements, link local food hubs to organizations that sell or serve food in low-income communities, and share how partners overcome barriers to healthy food access.

Addressing inequities within food systems is ultimately about addressing power imbalances, amplifying the voice of those excluded, and holding the powerful accountable. Despite the aforementioned efforts by various worldwide organizations, there is still work to be done to explore options for producing nutritionally balanced diets globally.

Chapter Three – Data Trend Analysis and Interpretations

Statistical Data

Food Availability and Consumption

The average U.S diet falls short of the recommended Dietary Guidelines for the below major food groups.

Fig 1A Retrieved from

https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=106189

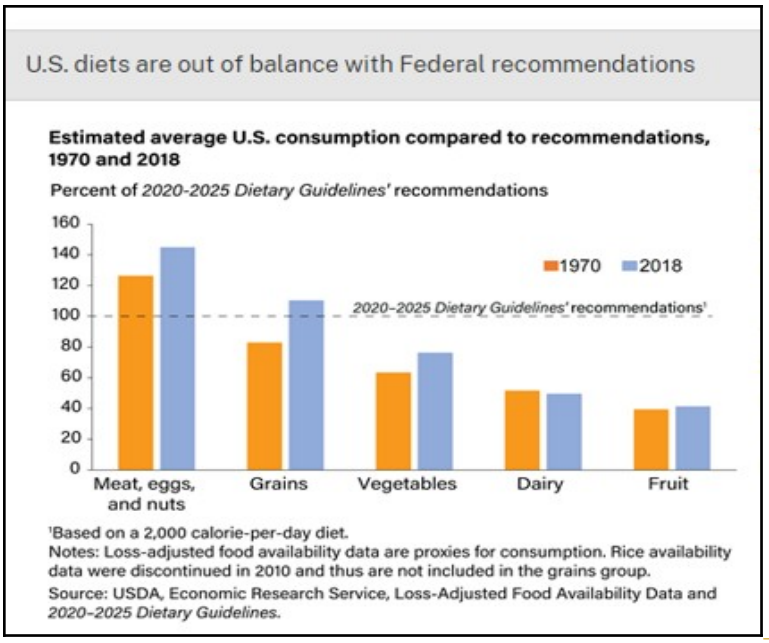


Fig 1B indicates that food-insecure populations have a lower frequency of consumption of a variety of healthy foods (.44 fewer servings of fruit per day and .43 fewer servings of vegetables per day). Regarding energy-dense foods, such as sugary beverages and cereal, consumption frequency is relatively high across both groups, and very comparable in magnitude.

Fig 1B - Retrieved from

Dietary Quality by Food Source and Demographics in the United States, 1977-2018 (usda.gov)

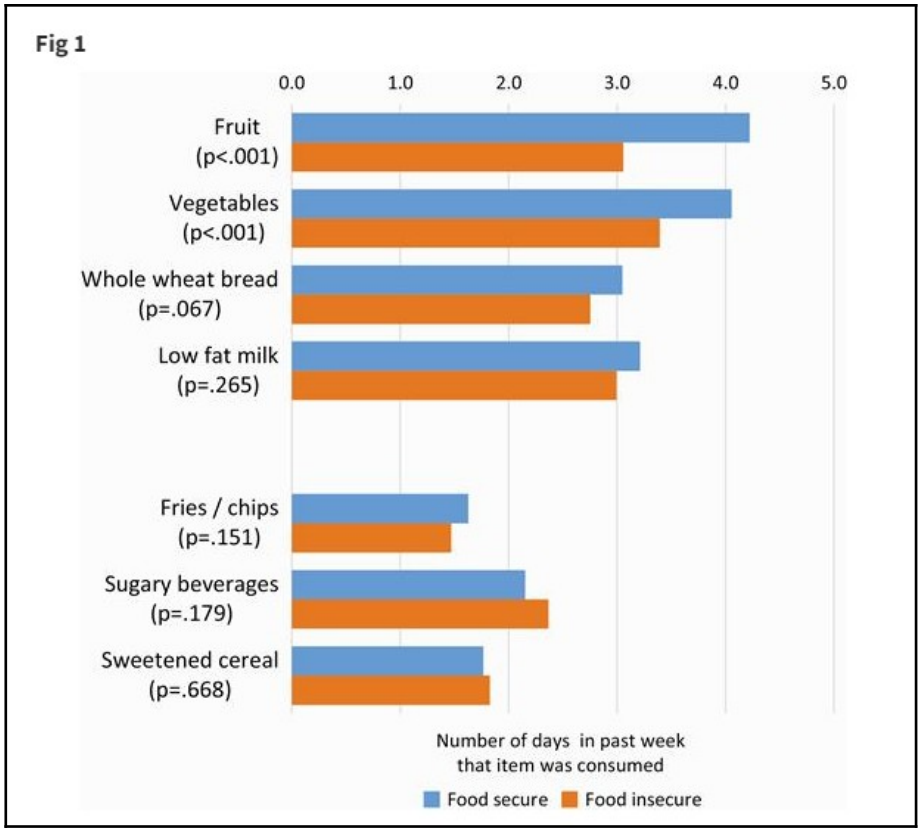


Fig 1B

Retrieved from

Dietary Quality by Food Source and Demographics in the United States, 1977-2018 (usda.gov)

According to the 2020-2025 Dietary Guidelines for Americans, low intakes of dietary fiber are a public health concern. The diet of U.S. consumers averaged 8.1 grams of fiber for each 1,000 calories in 2017–18 which is 58% of the recommended 14 grams per 1,000 calories. Over time, racial and ethnic gaps in dietary fiber consumption per 1,000 calories have widened.

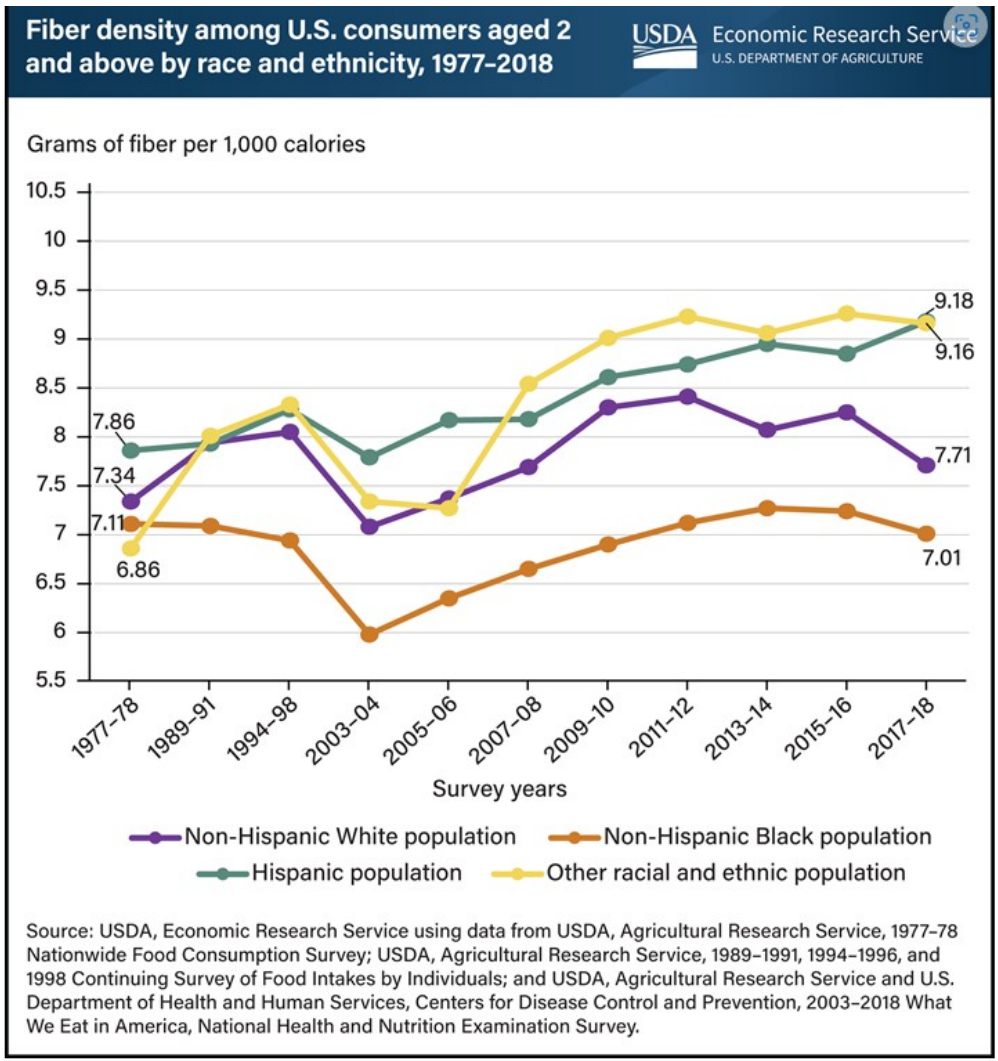


Fig 1C -

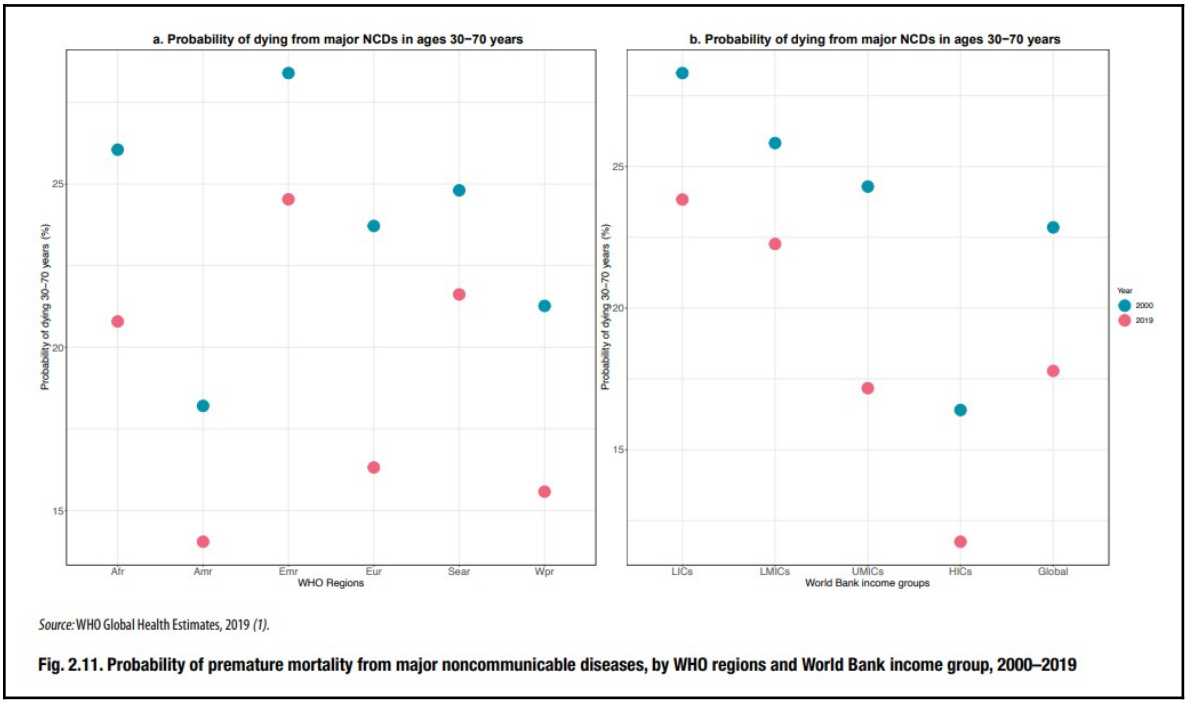
Retrieved from

USDA ERS - Chart Detail

This chart appears in ERS' report Dietary Quality by Food Source and Demographics in the United States, 1977–2018, published March 2023.

Fig 2.11 Noncommunicable disease mortality - Retrieved from World Health Statistics (who.int) 2021

Probabilities of pre-mature mortality from Noncommunicable diseases – (2000 – 2019) global/income based



Source: WHO Global Health Estimates, 2019 *(1)*.

Fig. 2.11. Probability of premature mortality from major noncommunicable diseases, by WHO regions and World Bank income group, 2000–2019

Statistical Tables

Fig 2.13 - Mortality rate for the 4 major NCD's - Retrieved from World Health Statistics (who.int) 2021

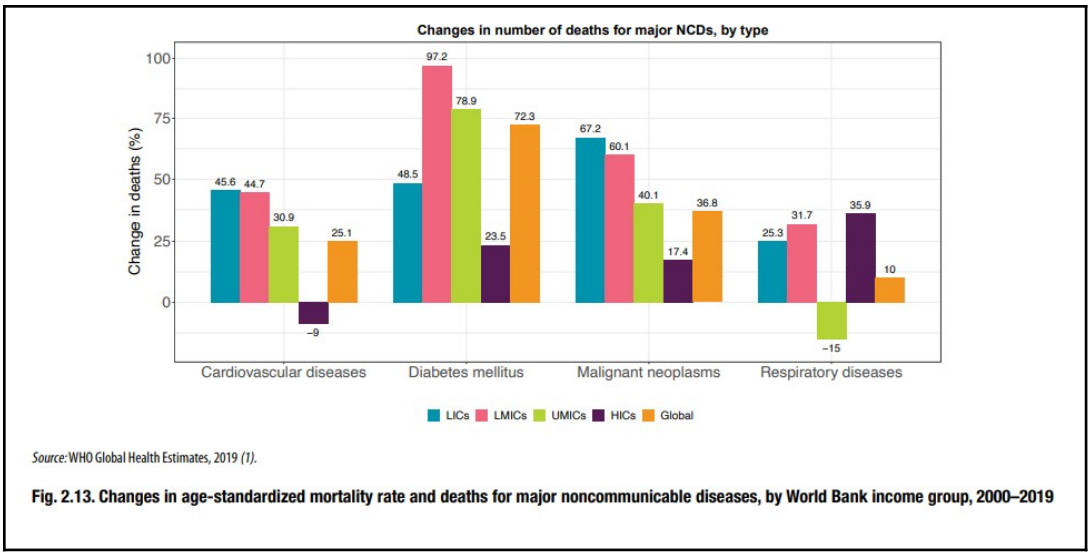
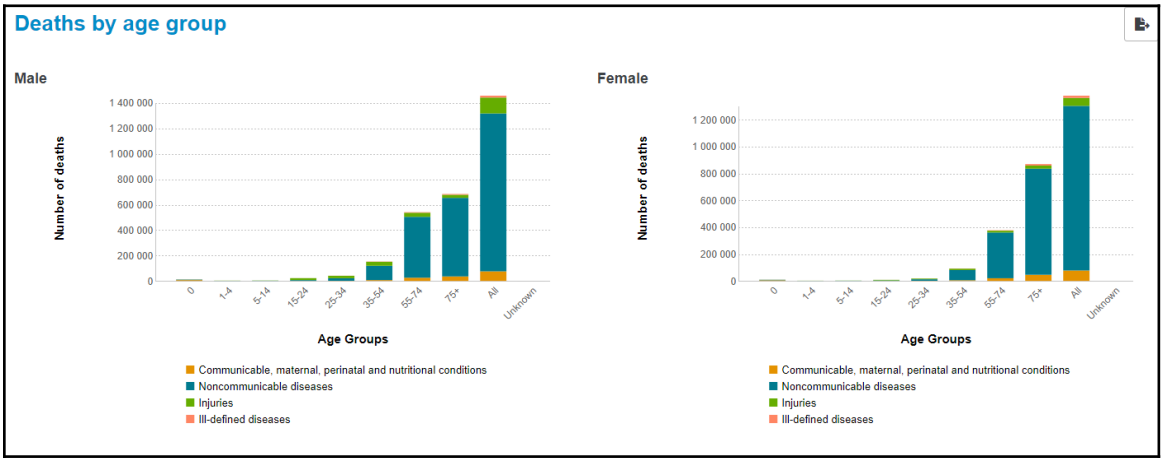


Fig. 2.13. Changes in age-standardized mortality rate and deaths for major noncommunicable diseases, by World Bank income group, 2000–2019

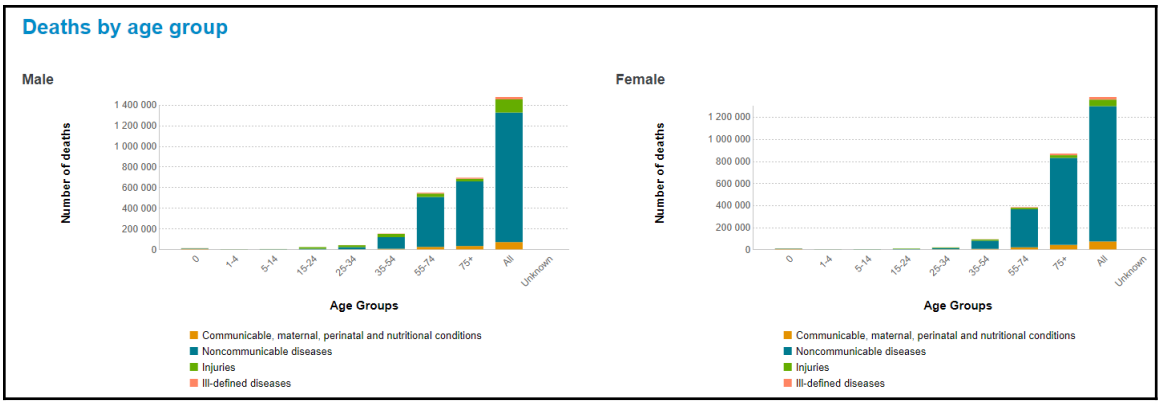
~~WHO~~ Mortality Statistics - breakdown of 4 major causes of death (2018-2020) showing the major cause of death being NCDs

Retrieved from United States of America (who.int)

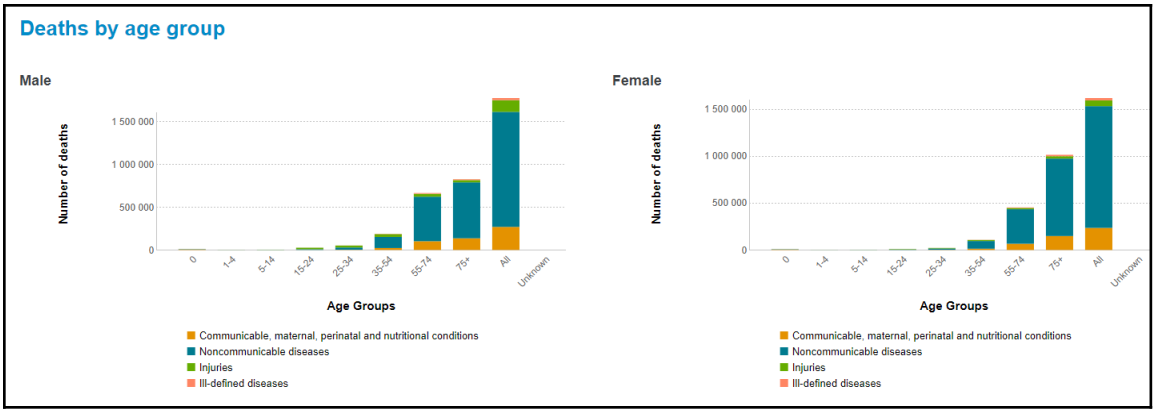
2018~~18~~

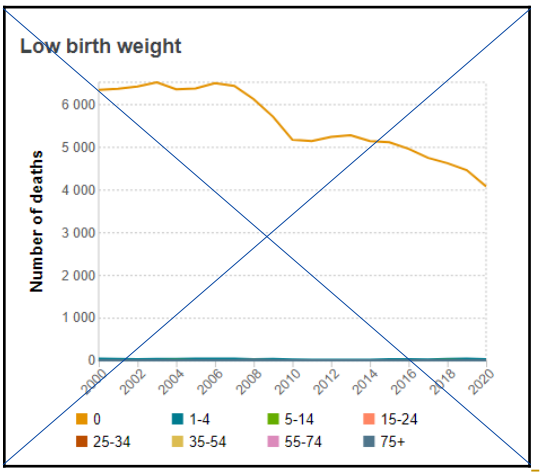


2019



2020





Implications

As stated in earlier chapters of this Capstone; the availability of healthy, affordable foods contributes to a person's diet and potential risk of related chronic diseases. Food insecurity defined in this analysis is associated with less healthy dietary behaviors as shown in the differences regarding frequency of fruit and vegetable consumption, which are both significantly lower in food-insecure populations. Additionally, research analyzing Federal food consumption survey data spanning the years 1977 through 2018 *(the most recent available national data)* shows that dietary fiber density, measured in this research as grams of fiber per 1,000 calories in food consumed, across race and ethnicity has widened over time. It was further observed that diets of non-Hispanic Black people have been significantly lower in fiber density than those of non-Black people. Based on nutrition guidelines, improving consumption of dietary fiber may also reduce the risk of cardiovascular disease, type 2 diabetes, and some types of cancer. Many young children do not consume fruits and vegetables daily and are regularly consuming sugar-sweetened beverages. Federal nutrition programs and state policies and programs can support improvements in diet quality by increasing access to and availability of fruits and vegetables and healthy beverages in places where young children live, learn, and play.

Healthy eating patterns increase the chances of longer life and lower the risk for serious health problems. For people with chronic diseases, healthy eating can help manage these conditions and prevent complications. Federal data show that from the first edition of the Dietary Guidelines for Americans in 1980 through today, healthy dietary consumption has fallen short of meeting the daily recommendations, thus diet-related chronic disease rates have risen and continue to be a major public health concern.

Noncommunicable diseases (NCDs), such as heart disease, stroke, cancer, diabetes, and chronic lung disease, are collectively responsible for 74% of all deaths globally. Each year, 17

million people die from NCDs before age 70; 86% of these premature deaths occur in low- and middle-income countries. People of all age groups, regions and countries are affected by NCDs. Children, adults, and the elderly are all vulnerable to the risk factors contributing to NCDs, whether from unhealthy diets, lifestyles, or the lack of physical activity. Unhealthy diets and a lack of physical activity may show up in people as raised blood pressure, increased blood glucose, elevated blood lipids and obesity. These are called metabolic risk factors and can lead to cardiovascular disease; one of the leading NCDs in terms of premature deaths.

Socioeconomic impacts such as Poverty is closely linked with NCDs. Data compiled in Fig 2.11 shows this is a global issue. The probability of premature death due to NCDs have increased from 2000 to 2019 with the highest increase being among LIC (low-income countries). The actual deaths from NCDs show an increase in Fig 2.13 among LMIC populations (low-middle income countries). This data further supports that socially disadvantaged people tend to be more vulnerable and get sicker and die sooner than people of higher social positions, especially because they are at greater risk of being exposed to unhealthy dietary practices and have limited access to health services. The scientific connection between food and health has been well documented for decades, providing substantial evidence that healthy dietary patterns can help people achieve and maintain good health.

Please note: (some trends may not be avail from 2023 and 5 years prior per below mentioned -In March 2020, the coronavirus disease 2019 (COVID-19) pandemic halted National Health and Nutrition Examination Survey (NHANES) field operations)

Chapter 4 – Recommendations

Role of Organization Addressing the Issue

Nutrition equity considers whether individuals have equitable access to nutritious foods and seeks to address structural inequities that have led to disparities in access. There is a necessity for an equitable food system where all people (including those living in low-income neighborhoods and communities of color) can fully participate and reap its benefits. Optimal health is highly dependent on food systems, and as such the inequities embedded within need to be addressed and ultimately fixed. Addressing nutrition equity and creating effective strategies requires a team with both clinical and policy expertise, as well as community involvement.

Medical Facilities/Primary Care

The first place to start is with practices that can bridge the gap between primary health care and nutrition. Medical facilities can screen patients to identify possible food insecurity signs upon initial assessment. The information retrieved during intake could further be used as referrals for social services and nutritional recommendations. Social service administrators would further identify dietary needs and then advocate for resources which may satisfy the immediate need as well as long term needs. For example, providing the patient with a voucher for items to create a nutritious meal which would be redeemable in an onsite or nearby pantry.

Nutrition specialists would laisse with primary care physicians to produce medically tailored meals for patients before introducing prescription medication.

Policymakers

There is a need for policies that are focused on removing barriers and providing funding and programs which can create opportunities that bring healthy food options to the people and at the same time create benefits for all involved, farmers, businesses, and the community. One example is government agencies could provide subsidies as incentive to organizations and institutions who purchase produce directly from local farmers and can demonstrate they actively promote healthy eating in the workplace. Employer sponsored health insurance could be further subsidized with tax write-offs as employers demonstrate the active promotion of healthy foods and a portion of the tax benefit could be passed onto employees who also demonstrate they actively and consistently participate in the healthy food programs offered at work.

With the help of government or private sponsored resources, small business owners interested in operating locally could provide retail grocery stores which support efforts to bring healthy affordable food to low, and moderate-income communities. Incentives could range from monetary investments used to help with startup costs, as well as resources to support efforts to bring participation in government funded programs such as SNAP benefits. Additional economic value could be added if the retailers chose to staff their business with people from the local communities they serve.

Community/Agency

Healthy food access encompasses proximity, convenience, affordability, healthfulness, variety, and cultural relevance. Many of these factors can be achieved with the development of areas within communities which are dedicated to the growth of local agriculture. Not only would

this create active community engagement by the members becoming involved in the maintenance of the garden; it would also empower them with the freedom to choose the types of produce which mostly aligns with the culture. Additionally, collaborating with local agencies would be helpful to provide overall sustainability tips and tricks, training, education, and support.

Creating partnerships between local businesses, hospitals, and farmers to offer in season fruits and vegetables at a discount. For example, nutrition staff of local employers with cafeterias, and hospitals would coordinate the purchase of in season produce from farmers and create healthy and tasty dishes that would be featured in the cafeterias along with recipe cards and possibly a basket of the required produce for the dish could be made available for purchase.

The Challenges to the Implementation of the Recommendations

Despite past advancements made towards creating food security for all, we find the burden is still high due to a host of challenges; mainly due to a lack of collaboration and coordination across multiple sectors which impact food systems. Stakeholder collaboration is crucial for sustainability of recommended changes. For example, the recommendation of initial intake screening for nutrition inequities only works if physicians support outreach and advocacy efforts. As this effort requires additional time spent with patients which could result in less patients seen on a daily basis, causing an adverse effect on the facilities/physician's bottom profit line. In the same regards, there could be pushback from the pharmaceutical industry when the recommended approach yields positive outcomes for patients. Ultimately this would create a lesser dependency on medication which ultimately impacts profits anticipated by the pharma industry. Even with all the best efforts in place, (affordability, access, etc.) there is still work to be done regarding personal choice. Getting individuals to take responsibility of choosing to eat a

healthy diet is often harder than getting them to take prescribed medication. Ultimately, the influence of individual diet quality lies with the individual.

Fair distribution of farm support is one of the greatest challenges for farmers. This is a main point being debated in the upcoming Farm bill. According to Merrigan the view is "too much money goes to very large farms that produce commodity crops like wheat, corn, soybeans and rice, while small and medium-size producers receive far less support." Without receiving their fair share of funding, collaborations recommended above would have a tough time succeeding.

Desired Outcomes

Evidence suggests that healthy diets are effective in helping control and reduce chronic diseases. We would look to encourage health care providers to engage in supporting access to healthy food to address social determinants of health. Food insecurity and the inequities in nutrition are associated with high health care utilization and costs. Ensuring that people have healthy food to eat may bring those costs down. Nutrition strategies will help close clinical disparities in diet-sensitive conditions such as hypertension, type 2 diabetes, and heart disease; and also lessen the challenges faced in managing such conditions.

Property owners would see reduced property tax assessments in exchange for converting vacant or unimproved property to urban agriculture. This would increase community engagement, moving conversations around community ownership of food assets and production forward so that Agencies working alongside communities drives long-lasting improvements.

In conclusion, the utilization of collective power can create a more just and nourishing food system. Building resilient local food systems that support access to healthy, affordable food is the beginning to driving long-term positive change for communities that need it most.

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