

Let food be thy medicine

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Nutrition and diet form the bedrock of human survival and well-being, influencing not only individual health but also the socioeconomic stability and development of entire civilizations. Historically, the ability of societies to secure adequate food resources has often dictated their rise and fall. Despite modern advancements in agricultural productivity and food distribution, the paradox of global food security remains. While many enjoy unprecedented access to diverse food choices, approximately one in nine people globally still suffer from hunger or malnutrition. This dichotomy underscores the critical need to address both the availability and quality of food to enhance public health. Food insecurity is not limited to developing nations; it is a significant concern in affluent countries as well. Economic pressures force many individuals to make difficult choices between essential living expenses such as rent, transportation, and utilities, often at the expense of their nutritional needs. This economic strain leads to the consumption of inexpensive, calorie-dense, but nutrient-poor foods such as white bread and hotdogs. These dietary choices contribute to a range of health problems, including obesity, diabetes, heart disease, and various cancers. Beyond economic constraints, numerous factors influence food selection, including habits, taste preferences, and cultural traditions. These elements shape dietary choices even among the wealthy. Cultural and traditional food practices can either support or hinder healthy eating habits. For example, traditional diets often include nutrient-rich foods that can be promoted as part of a healthy eating plan. Public health campaigns that respect and incorporate cultural food practices are more likely to be successful in encouraging healthy eating behaviors. Behavioral interventions, such as educational programs, cooking classes, and community-based initiatives, can also effectively promote healthier eating habits. By addressing both cultural and behavioral factors, public health initiatives can create supportive environments that encourage healthy eating. Access to nutritious food is influenced by a variety of barriers that can differ significantly depending on the location. These barriers can be broadly categorized into geographic, economic, social, and policy-related factors:

- **Geographic:** The physical environment, including the types and quality of food available in one's immediate surroundings, influences dietary choices. Food deserts and

food swamps (areas with a high density of fast-food options) are examples.

- **Economic:** Low-income individuals often cannot afford healthier food options, leading to a reliance on cheaper, less nutritious alternatives.
- **Social:** Time constraints, busy lifestyles, and long working hours can lead to a reliance on quick, unhealthy food options. Media and advertising also play a powerful role in shaping food preferences and consumption patterns, often promoting high-calorie, low-nutrient foods.
- **Policy-related:** Food policies and regulations can either facilitate or hinder access to nutritious food. Policies aimed at improving food security, such as subsidies for healthy foods and clear labeling of nutritional information, can make a significant difference.

When seeking nutritious foods that are also affordable, it is important to focus on options that provide a good balance of essential nutrients, including proteins, carbohydrates, fats, vitamins, and minerals. Education is a powerful tool in this regard. Informing the public about the nutritional benefits of affordable and healthy foods can drive positive dietary changes. Some examples of cheap, nutritious foods are as follows:

- **Legumes:** Beans, lentils, and peas.
- **Whole grains:** Oats, brown rice, and quinoa.
- **Vegetables:** Carrots, spinach, and cabbage.
- **Fruits:** Bananas, apples, and oranges.
- **Protein sources:** Eggs and canned tuna.
- **Dairy and dairy alternatives:** Milk, yogurt, and plant-based milks.
- **Nuts and seeds:** Sunflower seeds, peanuts, and almonds.

Food policies play a critical role in shaping food choices and ensuring access to nutritious food products. Policies that promote agricultural sustainability, regulate food marketing, and provide financial incentives for healthy food production can help

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improve public health outcomes. In addition, policies that support food-assistance programs and address economic disparities can help reduce food insecurity and promote healthier eating habits.

Furthermore, though physical activities/exercise play an important role in maintaining our health, if someone is starving from lack of food, would you recommend exercise first? Of course not, that is why I often say that exercise is superior treatment in the face of adequate nutrition. The authors also believe that in terms of hierarchy, first we should place agriculture, food science, nutrition, and then exercise. We shall not dismiss the importance of other fields such as medicine.

The future of nutrition and public health lies in a multifaceted approach that integrates food policy, education, and public health initiatives. Ensuring access to nutritious foods, promoting healthy dietary practices, and supporting sustainable agricultural practices are essential components of this approach. As Hippocrates wisely stated, “Let food be thy medicine and medicine be thy food.” This timeless advice reminds us of the fundamental role that nutrition plays in our health and well-being and the importance of addressing the complex factors that influence our food choices. By working together, we can create a healthier and more equitable food system for all.

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