

Breaking Barriers:
Empowering America's Underserved with
Resources and Access to a Healthy Diet



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Healthy communities depend on healthy diets. Diet-related public health crises such as diabetes and cardiovascular disease (CVD), the leading cause of death for women and men in the United States, disproportionately impact low-income individuals and underserved and disadvantaged populations.

Preventable diseases are the leading causes of death and disability in the United States. Seven in 10 U.S. deaths each year are from chronic diseases - heart disease, cancer, stroke and diabetes, which are preventable through diet and lifestyle changes.

Consumer choices about diet are influenced by accessibility and affordability. It is extremely difficult to eat healthy on a very limited budget, especially when the cheapest food maybe high in calories but not necessarily with adequate nutrients.

Studies suggest that some areas and households have easier access to fast food restaurants and convenience stores but limited access to supermarkets. Increases in obesity and diet-related diseases are major public health problems that are made worse in some U.S. communities because access to affordable and nutritious foods is difficult. And in too many communities across America, access to healthy food, especially seafood, is too far out of reach.¹

In 2014, 48.1 million Americans lived in food insecure households, including 15.3 million children, underscoring the need to help the underserved with nutritious and healthy meals, according to statistics released in September from the U.S. Department of Agriculture (USDA).² About 14.5 percent of Americans rely on food stamps under the federal Supplemental Nutrition Assistance Program (SNAP). Compared with both higher-income Americans and low-income people eligible but not enrolled in the program, SNAP participants consumed fewer fruits and vegetables, fish, and whole grains and more added sugars, according to an analysis published in July in the *American Journal of Preventive Medicine*.³

Founded in 2013, Seafood Nutrition Partnership (SNP) is a non-profit, and member of the Non-Communicable Disease Roundtable, whose mission is to inspire a healthier America by raising awareness, especially among underserved women, aged 35 to 50 with at least one risk of CVD, about the essential nutritional benefits of eating seafood through local and national partnerships. SNP's grassroots advocacy and public education efforts aim to help the underserved and all Americans to improve their health and diet by incorporating more seafood into their diets.

¹Access to Affordable and Nutritious Food—Measuring and Understanding Food Deserts and Their Consequences: Report to Congress by Michele Ver Ploeg, Vince Breneman, Tracey Farrigan, Karen Hamrick, David Hopkins, Phillip Kaufman, Biing-Hwan Lin, Mark Nord, Travis A. Smith, Ryan Williams, Kelly Kinnison, Carol Olander, Anita Singh, and Elizabeth Tuckermanty Administrative Publication No. (AP-036) 160 pp, June 2009

²Alisha Coleman-Jensen, Matthew P. Rabbitt, Christian Gregory, and Anita Singh. Household Food Security in the United States in 2014, ERR-194, U.S. Department of Agriculture, Economic Research Service, September 2015.

³Dietary Quality of Americans by Supplemental Nutrition Assistance Program Participation Status Andreyeva, Tatiana et al. *American Journal of Preventive Medicine*, Volume 49, Issue 4, 594 - 604

Why Seafood?

Fish, shellfish, and mollusks, referred to as “seafood,” are nutrient-rich protein foods containing varying amounts of healthful natural compounds known as omega-3 fatty acids, vitamins, and minerals, which consumption has been associated with reducing the risk of diabetes and CVD.

Seafood is a low-calorie source of healthy fats and protein. Most lean fish such as cod and flounder contain 100 calories or less per 3-ounce cooked portion; fattier fish such as salmon and mackerel contain around 200 calories or less per 3-ounce cooked portion, according to FishWatch, an online information portal about seafood from the National Oceanic and Atmospheric Administration (NOAA).

Most kinds of fish and shellfish contain less than 5 percent total fat. Plus, a 3-ounce cooked serving of most fish or shellfish provides about one-third of the average, daily recommended, amount of protein. Seafood is major source of vitamin D for strong bones, vitamin A for eyes and skin, and vitamins C and E for a healthy immune system. In fact, a serving of salmon provides the daily requirement for vitamin D. Seafood is also a great source of iodine, calcium, phosphorus, selenium, and other important minerals, according to FishWatch. Selenium has an essential function as a part of the antioxidant system vital to protecting the brain and other sensitive organs.

In general, seafood is:

- A good source of high-quality protein
- Low in saturated fat
- A good source of omega-3 fatty acids
- Rich in vitamins and minerals

The U.S. government’s 2010 Dietary Guidelines for Americans⁴ recommend eating two servings of seafood—about 8 ounces—weekly to get at least 1,750 milligrams of two omega-3s, known as EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid). All fish and shellfish contain some omega-3s. Generally, fattier fish such as salmon, mackerel, herring, sardines, anchovies, trout and tuna contain more omega-3s than leaner fish.

Eating seafood containing healthy omega-3 fatty acids just two times a week can reduce a person’s risk of cardiovascular disease by 36 percent, according to a study published in the esteemed Journal of the American Medical Association.⁵

⁴Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2010 to the Secretary of Agriculture and the Secretary of Health and Human Services, pages 239-241, available at <http://www.cnpp.usda.gov/DGAs2010-DGACReport.htm>.

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According to new draft advice from the U.S. Food and Drug Administration (FDA), pregnant women, or women who might become pregnant or breastfeeding, should eat a minimum of 8-12 ounces (2-3 servings) per week of fish that are lower in mercury to support fetal growth and brain and eye development before birth, in early infancy for breastfed infants, and in childhood. The most commonly eaten fish are low in mercury, including salmon, shrimp, pollock, tuna (light canned), tilapia, catfish, crab, clams and cod. The FDA advises pregnant women avoid four types of fish: tilefish, shark, swordfish, and king mackerel, as they have the highest levels of mercury. Since half of the brain is made up of omega-3 fatty acids, the real risk is not eating enough seafood.

However, while most U.S. consumers eat some seafood, the amounts are inadequate to meet the federal dietary guidelines. Overall, between 80 and 90 percent of U.S. consumers do not consume enough seafood to meet the recommendations, according to a recent study in the journal *Nutrients*.⁶

Healthier foods such as fruits and vegetables, whole grains, low and non-fat dairy, lean meats and seafood are often perceived as more expensive, while foods of lower nutritional value such as products high in refined grains, added sugars and fats are often cheaper, more easily mass produced, and more widely available. This food inequality is one contributor to our nation's obesity crisis.

America's Unhealthy Crisis

Obesity puts about 78 million Americans at an increased risk for a range of health problems, including heart disease, diabetes and cancer. A new comprehensive report released in September 2015 by the Robert Wood Johnson Foundation (RWJF), *The State of Obesity: Better Policies for a Healthier America*, showed that U.S. obesity rates are now above 20 percent in every state, and nearly 40 percent of American adults ages 40 to 59 are obese. The data show that 7 of the 10 states with the highest rates are in the South and 23 of the 25 states with the highest rates of obesity are in the South and Midwest. Nine of the 10 states with the highest rates of diabetes are in the South.

Today, more than 30 percent of adults, nearly 17 percent of 2 to 19 year olds and more than 8 percent of children ages 2 to 5 are obese nationwide, the report showed. Children who are overweight or obese face greater risk for type 2 diabetes, heart disease and asthma, and are more likely to miss school and experience psychological stress.

The RWJF obesity report demonstrates the correlation between an unhealthy diet and preventable diseases, especially among the underserved and minorities.

⁶Jahns L, Raatz SK, Johnson LK, Kranz S, Silverstein JT, Picklo MJ. Intake of Seafood in the US Varies by Age, Income, and Education Level but Not by Race-Ethnicity. *Nutrients*. 2014; 6(12):6060-6075. doi:10.3390/nu6126060.

Nationally, obesity rates are 38 percent higher among Blacks than Whites and more than 26 percent higher among Latinos than Whites. (Obesity rates for Blacks: 47.8 percent; Latinos: 42.5 percent; and Whites: 32.6 percent.) Among children and teens (2 to 19 years old), 22.5 percent of Latinos, more than 20 percent of Blacks and 14.1 percent of Whites are obese.

To be sure, compared to Caucasians, African-Americans face twice the rate of sudden cardiac arrest, according to a study from the Cedars-Sinai Heart Institute published in the medical journal *Circulation* in July.⁷ For African-American women, the incidence was 90 per 100,000 women, compared to 40 per 100,000 for Caucasian women.

Barriers of Access

Some people and places, especially those with low income, may face greater barriers in accessing healthy and affordable food retailers, which may negatively affect diet and food security. Food deserts are low-income communities without ready access to healthy and affordable food, according to the USDA.

Having local, accessible stores with a quality selection of healthy foods helps make healthier choices easier. Supermarkets provide the most reliable access to a variety of healthy, high-quality products at the lowest cost, and shoppers generally prefer these stores to smaller neighborhood grocery stores and convenience stores.

A new report from the USDA's Economic Research Service (ERS), titled *Food Choices and Store Proximity*,⁸ showed that 9.7 percent of the U.S. population in 2010 lived in low-income areas more than one mile from the nearest supermarket.

"The diet quality of these consumers may be compromised by their food environment," the report said. "Some may be unable to reach supermarkets regularly or without effort, instead buying food from nearer stores that offer less healthy food products. Retailers may be discouraged from locating in low-income areas due to insufficient demand, and poverty can prevent the residents of these areas from obtaining lower priced and better quality products far (over 1 mile for urban consumers, 10 miles for rural) from their homes."

The report investigated the correlation between households that live in low-income, low-access (LILA) areas and their purchases of 14 major food groups that vary in dietary quality. The report found that the

⁷Distinctive Clinical Profile of Blacks versus Whites Presenting with Sudden Cardiac Arrest *Circulation*. 2015;CIRCULATIONAHA.115.015673p published online before print July 20 2015, doi:10.1161/CIRCULATIONAHA.115.015673

⁸Rahkovsky, Ilya and Snyder, Samantha. *Food Choices and Store Proximity*, ERR-195, U.S. Department of Agriculture, Economic Research Service, September 2015.

joint effect of low income and low access in urban areas is associated with the purchase of 2.7 percent fewer vegetables, 3.6 percent more red meats, and 5.5 percent less fish and poultry.

The State of Obesity report shows that adults living in neighborhoods with supermarkets have the lowest rates of obesity, and those living in neighborhoods with no supermarkets and access to only convenience stores and/or smaller corner grocery stores had the highest rates of obesity.

The report also shows that adults with no supermarkets within a mile of their homes are 25 percent to 46 percent less likely to have a healthy diet than those with the most supermarkets near their homes.

Providing Solutions

The U.S. government has developed several initiatives to incentivize grocery stores with healthier food options to locate in low-income communities.

One particular government effort to help families afford basic nutrition needs and help inform them about ways to make healthy choices about food and drinks is called the Healthy Food Financing Initiative (HFFI), introduced by the Obama administration in 2011.

HFFI supports projects that increase access to healthy, affordable food in communities through a range of programs at the U.S. Departments of Agriculture (USDA), Treasury, and Health and Human Services (HHS). HFFI expands the availability of nutritious food, including developing and equipping grocery stores, small retailers, corner stores, and farmers markets selling healthy food. HFFI also promotes public-private partnerships, which use federal grants and loans to provide support to full-service supermarkets or farmers' markets that are located in lower-income urban or rural communities.

Since 2011, the U.S. government has distributed more than \$109 million in HFFI grants across the country, helping to support the financing of grocery stores and other healthy food retail outlets including farmers' markets, food hubs, and urban farms.

Another example of an incentive aimed at lowering barriers to opening new or expanding healthy supermarkets and other food retailers includes an innovative effort in the nation's capital called the DC Supermarket Tax Exemption Act and Healthy Food Retail Program. The program designates a "grocery ambassador" to help grocers navigate the bureaucratic hurdles of opening new stores. The program also exempts eligible grocery store developments from paying the business license fee, offers a fast-track permitting and review process, assigns density bonuses and other zoning flexibility, and works with grocers to lower their energy-related operating costs.

In nearby Baltimore, mom-and-pop carryout restaurants saw profits rise when they tried out healthier menus, according to a study conducted by researchers at Johns Hopkins University's Bloomberg School of Public Health and published recently in *The American Journal of Health Promotion*.⁹ Through a pilot program, a small group of carryouts in low-income Baltimore neighborhoods received guidance to redesign their menus and offer healthier entrees, side dishes, and combo meals. The result was that the stores increased their gross revenue by an average 25 percent.

Another effort to combat the spread of food deserts in Baltimore, where about 25 percent of the city's residents live in food deserts, was just launched by Mayor Stephanie Rawlings-Blake, who announced plans to bring more private investment into the city's food deserts by forgiving a big portion of grocery store owners' tax obligations as long as they boost healthy food options. Qualifying grocery store owners would get an 80 percent reduction in property taxes for 10 years. Owners building a new supermarket or improving an existing, smaller store within a quarter-mile of a food desert or spending to improve an existing location would be eligible for the relief, provided their expenses meet a certain threshold.

The city of Atlanta, GA, is the nation's third-largest food desert, behind New Orleans and Chicago. All three cities are a perfect mix of the themes defining food deserts: race, class, and sprawl. A three-part Atlanta Journal Constitution investigation published earlier this year revealed that nearly two million Georgia residents, including about 500,000 children, live in food deserts.

The Seafood Nutrition Partnership has taken up the charge of dispelling the notion that seafood is expensive and only available to the wealthy, and is raising awareness of the critical health benefits that seafood can provide for all Americans.

Seafood is simple to prepare and very versatile—with light cooking methods such as grilling, poaching, broiling, and baking, seafood is delicious and nutritious any way you cook it.

Education: The Invaluable Health Resource

At the core of SNP is its nutrition intervention program, *Eating Heart Healthy*, which aims to increase awareness of heart health by helping underserved Americans, especially women, feed their families nutritious and healthy meals by demonstrating how simple and inexpensive it can be to incorporate seafood into their diets and budgets.

⁹Seung Hee Lee-Kwan, Sara N. Bleich, Hyunju Kim, Elizabeth Colantuoni, and Joel Gittelsohn (2015) Environmental Intervention in Carryout Restaurants Increases Sales of Healthy Menu Items in a Low-Income Urban Setting. *American Journal of Health Promotion*: July/August 2015, Vol. 29, No. 6, pp. 357-364.

Last year, the Seafood Nutrition Partnership concluded its Eating Heart Healthy pilot program. The program, in partnership with Boston-based Brigham & Women's Hospital, the teaching hospital of Harvard Medical School, and Roxbury Tenants of Harvard (RTH), a nonprofit affordable-housing community for low- and moderate-income families, was designed to help women curb their risk of heart disease through a seafood-rich diet.

For four weeks, female RTH residents participated in heart health talks and cooking demonstrations, sampled omega-3 capsules, and were provided seafood recipes to feed a family of four for \$10 per meal. At the end of the program, it was estimated that 92 percent of participants lowered their risk of sudden cardiac death, and 6 in 10 participants were at a lower risk for general cardiac problems.

The success of the four-week program led SNP to launch pilot public health education campaigns in Memphis, TN and Indianapolis, IN. SNP partnered with local chefs, stakeholders, community leaders and health professionals to host cooking demonstrations, free health screenings for omega-3 levels, week-long restaurant events, and distribute free health education literature and recipes highlighting the nutritional benefits of seafood.

The success of those pilots provided the foundation to expand the grassroots, public health education campaign this October, also National Seafood Month, to a total of nine cities, including: Birmingham, AL; Charleston, WV; Golden Isles, GA; Indianapolis, IN; Jacksonville, FL; Lexington, KY; Memphis, TN; Oklahoma City, OK, and Toledo, OH.

Seven of those target markets, chosen because of their high rates of CVD, are in the top 14 states with the highest rates of obesity, according to the Robert Wood Johnson Foundation's new obesity report.

To be sure, education and targeted public health campaigns are critical in spreading point-of-purchase information and knowledge about how to select, order and prepare healthy proteins such as fish and shellfish, where consumers are at increased risk of making poor choices.

A recent study, led by researchers at the USDA's Agricultural Research Service (ARS), reviewed published studies that explored seafood consumption's link to heart health, and found consistent evidence supporting reduced risk of heart disease due particularly to eating oily fish. The study concluded that getting the message of the health benefits of eating seafood to consumers is key, and suggested a public education program was the best way to do so.

That recommendation matches exactly the efforts undertaken by the Seafood Nutrition Partnership's public health education campaign.

The necessity of helping the underserved gain access to nutritious and healthy seafood as part of a balanced diet is the core mission of the Seafood Nutrition Partnership and its Healthy Heart Pledge: “I recognize seafood is a healthy choice for me and my family and one of the leanest proteins with a variety of nutrients. The Seafood Nutrition Partnership aims to reduce the risks of heart disease, improve baby brain wellness and increase memory for seniors by educating Americans about the health benefits of seafood and building awareness of seafood’s essential nutritional value. By pledging to eat at least two servings of seafood each week as recommended by the USDA HHS Dietary Guidelines, I know I will help me and my family reduce our risk of cardiovascular disease.”

As a group on the front lines of educating the underserved about better nutrition, Seafood Nutrition Partnership can help provide underserved and disadvantaged populations with the training and tools necessary to improve their heart health and make healthy choices for them and their families.



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