

Cooperative Extension

Promoting Healthy Families, Schools and Communities

School Lunchroom Share Tables:

An Easy Way to Reduce Food Waste and Alleviate Food Insecurity



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Food Waste

In 2019, USDA has estimated that between 30-40% of the food that we produce in the United States ends up as waste. While food waste occurs at several sources, the USDA has identified schools as being a potential source of significant food waste reduction. If you have ever spent time in a school cafeteria, you may have observed that students tend to throw away much of the food that they take from the lunch service line. Food waste is generally expected in schools due to varying individual food preferences and caloric needs of the students. Additionally, students may be served food that they do not ask for or want, meaning that food is likely to become trash by the end of the lunch period.

Food Insecurity

The United States Department of Agriculture (USDA) defines “food insecurity” as not having consistent access to enough food for an active, healthy life. In 2019, approximately 40 million people (including 12 million children) in the United States are food insecure. This is not due to the lack of enough food to feed everyone, but rather, a problem of food distribution systems that do not ensure equitable access to food for all.

What You Can Do: Share Tables

One way to address both the issue of food waste and that of food insecurity is to create Share Tables in the school cafeteria. Share Tables are a designated place in a school lunchroom where students can place unopened food and drinks that they do not consume. Any student may then take the items left on the share table to eat or drink later. The food on the Share Table may also be used as snacks at other times in the school day, such as after school programs or sports practices. Alternatively, Share Table food may also be donated to local food pantries or soup kitchens.



Share tables are relatively simple to set up and low- or no-cost. Schools will need a designated table or other area that is easily accessible to the students. Boxes may be set up there to keep various foods separate.

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What Are Antioxidants And Why Are They So Important?

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If you're traveling down a juice aisle in the grocery store, you're likely to see the phrase "Rich in Antioxidants" boldly displayed on many products. Marketing strategies such as these have shaped consumer awareness of antioxidants and has increased the public's interest in them, but why do we look for this phrase and how do antioxidants benefit us?

Chemical reactions are constantly occurring in our body, where molecules are being built up and broken-down during a process we call metabolism. During these reactions, some of the molecules become "unpaired". This basically means that the negative charges of molecules do not have a positive "mate", making them unstable and potentially dangerous for our cells. This type of molecule is called a free radical. Excessive free radicals in the body can cause many of the cells in our body to function improperly, leading to inflammation and chronic diseases such as cancer and heart disease.

Antioxidants from our diet can provide unpaired molecules with a positive charge, so that they are no longer a free radical. By consuming antioxidants on a regular basis, it is possible to prevent excess formation of free radicals, reducing oxidative stress and the risk for inflammation and chronic disease.

The safest and most helpful way to include antioxidants into your diet is from whole foods. Fruits and vegetables that are rich in colorful pigments such as oranges, tomatoes, blueberries, and kale are going to contain a variety of antioxidants as well as vitamins and minerals. Be aware that heavily processed fruit juices and snacks that claim to be a good source of antioxidants aren't a substitute for whole foods. There is also little evidence to suggest that ingesting antioxidants by way of supplements has health benefits. In certain cases, these studies have shown possible for some people.



There are different kinds of antioxidants found in our food (i.e. lycopene, found in tomatoes, Vitamin A and beta-carotene found in the rich orange pigment of sweet potato, and resveratrol found in the blue and purple pigments of blueberries and grapes). Other kinds of antioxidants include Vitamin E, selenium, and lutein. Each of these compounds have a specific role in the body. It is important to eat a wide variety of fruits and vegetables to ensure we are getting all the vitamins and minerals we need as well as reap the benefits of antioxidants. Other kinds of antioxidants include Vitamin E, selenium, and lutein. Here are examples of some common and affordable foods rich in antioxidants: sweet potato, spinach, strawberries, raspberries, dark chocolate, broccoli, kale, blueberries, mushrooms, tomatoes, beans and carrots.

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INGREDIENT SPOTLIGHT: BUTTERNUT SQUASH

Butternut squash is a vegetable that is sweet, nutritious and very similar to pumpkins in color and texture and is nutrient dense. A one cup serving has more than the daily value of Vitamin A, Vitamin C, Vitamin E, and is a good source of fiber. The rich orange color tells you that it also contains beta-carotene, which is an antioxidant that may play a role in reducing the risks of chronic diseases.



While it may look intimidating, preparing a butternut squash is simple. Begin by carefully cutting it in half. To each half, slice off the peel. Scoop out the seeds, as you would a pumpkin, and proceed to dice into small pieces and place on a sheet pan with olive oil, salt, pepper. Bake at 375 degrees for 25 minutes and enjoy the diced squash on a salad, in a stir-fry, or enjoy on its own.

HEALTHIER MACARONI AND CHEESE ADDING BUTTERNUT SQUASH

½ lb. whole-grain elbow macaroni
1 medium butternut squash, diced
1 small yellow onion, chopped
½ cup milk
¾ cup vegetable stock
1 garlic clove
1 cup Monterey jack cheese, shredded
1 cup mild cheddar cheese, shredded
1 cup muenster cheese, shredded
¼ cup breadcrumbs
1 tsp salt
1 tsp pepper

Method:

1. Preheat oven to 375 degrees.
2. Dice the butternut squash and onions, mix in salt and pepper, then roast in the oven for about 25 minutes, until fork tender. Put the roasted squash and onions into a blender or food processor with milk, stock, garlic, and blend until smooth.
3. While the squash is roasting, boil the elbow macaroni pasta and drain.
4. Mix the elbow macaroni by slowly mixing in the cheeses.
5. Transfer to an oiled baking dish and top with breadcrumbs.
6. Place in the preheated oven for about 15 minutes or until lightly browned on top.



How Risky are Frozen Berries?

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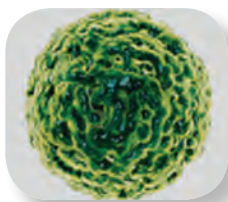


Fruits and vegetables are an important part of any healthy diet and berries are no exception. Frozen berries can be an economical way to store fruits for long periods of time while retaining nutrients and flavor. Unfortunately, scientific evidence indicates that pathogenic microbes (especially viruses) can sometimes contaminate frozen berries. Pathogenic microbes can survive the freezing process and can cause illness after consumption.

Viruses linked to frozen berry consumption in the past include Hepatitis A virus and Norovirus. Symptoms of Hepatitis A can occur between 2-6 weeks after eating contaminated food and include fever, fatigue, loss of appetite, nausea, vomiting, joint pain, stomach pains, diarrhea as well as jaundice (yellowing of skin and eyes). Symptoms of Norovirus include diarrhea vomiting, nausea, and stomach pain, and typically occur 12-48 hours after eating contaminated food.



The US Food and Drug Administration (FDA) is investigating frozen berries more closely in response to these possible risks. The FDA started a new random sampling program for frozen berries in November 2018 that will last for 18 months. FDA will test frozen strawberries, raspberries, and blackberries for Hepatitis A virus and Norovirus. FDA testing has triggered at least two recalls of frozen berries since the program began. Continued FDA testing will likely continue to trigger additional recalls. None of the recalls have been linked to any illnesses.



FDA former sampling programs have looked for bacteria in foods but testing for viruses is different. Bacteria can be cultured on nutrient agar, but viruses cannot. Virus testing looks for nucleic acids (genetic material) from these viruses. One problem with genetic testing for viruses is that we do not know if the nucleic acids came from live or dead viruses. Viruses that are dead are not able to cause illness. Another problem with genetic testing is that sometimes the tests can give “false positive” reactions, because what seem like virus nucleic acids are actually random bits of nucleic acids that are not from viruses.

Consumers that are concerned about risks from frozen berries can take a number of precautions. One common recommendation is microwaving berries prior to consumption. Berries can also be placed in a sealed bag and then placed into boiling water for several seconds. These risk reduction strategies can be useful in reducing illness but it is important to remember that virus risk from frozen berries is already very low. There have only been three outbreaks of Hepatitis A and one outbreak of Norovirus in the U.S. between 1997-2016 linked to frozen berries. Fruits and vegetables are always a part of a healthy diet and frozen berries can be a great way to add fruit to any diet.

References

<https://www.fda.gov/food/cfsan-constituent-updates/fda-sampling-frozen-berries-harmful-viruses>

<https://www.cdc.gov/norovirus/about/symptoms.html>

<https://www.cdc.gov/hepatitis/hav/index.htm>

FCHS Outreach Targets Schools In Gloucester County's Neediest Communities

Kaitlyn Fox, Intern: Rowan College at Gloucester County

Luanne J. Hughes, MS, RDN, FCHE Educator and Professor, RCE of Gloucester County



The **Supplemental Nutrition Assistance Program Education (SNAP-Ed)** is a federally funded grant program that teaches SNAP-eligible consumers about proper nutrition, budgeting skills, and how to make physical activity a part of a daily routine.

This article is the second in a series that profiles the work that the Department of Family and Community Health Sciences (FCHS), is doing to offer nutrition and physical education as part of New Jersey's SNAP-Ed program. FCHS manages SNAP-Ed in Region 2 (Burlington, Camden, Gloucester, and Mercer Counties). This work is funded through a grant from the New Jersey Department of Health.

SNAP-Ed provides a well-rounded selection of interventions to help consumers gain knowledge and empower them to adopt healthier lifestyle behaviors. Eleven different interventions are available to accommodate the variety of audiences FCHS reaches with SNAP-Ed outreach.

In Gloucester County, FCHS faculty and staff work extensively with local schools via an intervention called, **Whole School, Whole Community, Whole Child (WSCC)**. The **WSCC** model is student-centered and emphasizes the role of the community in supporting the school, the connections between health and academic achievement, and the importance of evidence-based school policies and practices. The **WSCC** model has ten components:

1. Physical education and physical activity.
2. Nutrition environment and services.
3. Health education.
4. Social and emotional school climate.
5. Physical environment.
6. Health services.
7. Counseling, psychological and social services.
8. Employee wellness.
9. Community involvement.
10. Family engagement



WSCC is an intervention that highlights the need for the implementation of wellness programs in schools. By encouraging schools to collaborate with surrounding community groups and organizations, **WSCC** helps schools set achievable goals. FCHS works with the schools to identify wellness strengths and weaknesses and set wellness goals by using the School Health Index (SHI). The SHI is a self-assessment and planning tool that assists schools in identifying wellness policies and practices that are the most effective and safe for the school.

The significant relationship between health and academic success has become prevalent in recent studies; therefore, this intervention is key for creating a proper environment for students to thrive academically while achieving physical and social wellbeing, as well. The resources provided from **WSCC** encourage schools to make changes that will draw a positive response from students and staff.

Leeanne Savoca, MS, RDN, a SNAP-Ed program associate, and Natalie Agee, a FoodCorps service member with Rutgers Cooperative Extension of Gloucester County, have been working to get **WSCC** up and running in several schools. We asked them some questions about their work

Q: Which schools do you work in?

A: We work with Bankbridge Elementary School in Sewell and Loudenslager Elementary School in Paulsboro.

Q: What do you do at the schools?

A: We help schools meet wellness and academic success goals through nutrition education; physical activity; and policy, systems, and environmental change strategies. We provide technical assistance to teachers, school nutrition staff, nurses, and administrators to help them achieve their wellness goals. We assist schools in completing the SHI, developing a wellness council, and organizing wellness committee meetings with staff such as nurses, PE teachers, parents, community liaisons, and administrators. We help schools establish goals

the school would like to achieve by using the information from the SHI and ideas from faculty and staff. We also work directly with students by providing hands-on food, nutrition, gardening, and cooking lessons.

We also provide technical assistance, such as identifying grants and alternative funding streams to support wellness initiatives. We've helped both Bankbridge and Loudenslager Elementary build edible school gardens that grow fruits and vegetables, and support garden-based nutrition education for students and staff alike. And our schools have already identified wellness priorities for the upcoming school year including: School composting, "Share tables" to reduce food waste, Cafeteria renovation for a more pleasant eating environment, Playground revamp to encourage students to exercise.

Q: Is it easy to implement a project like this?

A: The schools we currently work with have collaborated with FCHS before, so they understand the commitment it takes to be part of a project like this. Despite the busy schedules of faculty/staff, they understand the value of improving school wellness and how it affects academics and behavior, as well. **WSSC** is a great opportunity to broaden the knowledge of health and wellness in schools. Goals established via **WSSC** won't always be the same; **WSSC** is designed to be fluid and encourages schools to reassess and evolve. "Our goal," said LeeAnne Savoca, MS, RDN, "is for schools to continue using the guidelines of the program even after our involvement is complete. That's how we know it's a success."

For more information:

- "New Jersey SNAP-Ed Region 2." (Rutgers NJAES), 2019, njaes.rutgers.edu/snap-ed. and
- "Whole School, Whole Community, Whole Child (WSSC) | Healthy Schools | CDC." Centers for Disease Control and Prevention, 2019, www.cdc.gov/healthyschools/wssc/index.htm.

School Lunchroom Share Tables:

An Easy Way to Reduce Food Waste and Alleviate Food Insecurity - continued from page 1



The area should have clear signs indicating that it is a Share Table, as well as brief instructions for what types of foods may be shared, and designated spots for various foods (for example, all milk should go in one box and kept cold, and separate from fruits and other foods).

Students, lunchroom staff, and other school staff should all receive training in advance of creating a Share Table so that they understand what foods can and cannot be donated, as well as proper food safety practices.

USDA Support and Guidance

The USDA supports and encourages the use of Share Tables in school lunchrooms (see below for the USDA's guidance Share Tables). School leaders may be fearful of potential liability from donating food; however, the Good Samaritan Law protects against liability for these types of donations. (In 1996 President Clinton passed The Good Samaritan Food Act to encourage companies and organizations to donate healthy food that would otherwise go to waste.) Schools who want to donate food do need to adopt and follow proper food safety protocol when donating food. See below for a sample share table food safety protocol.

Share Tables are an easy, low-cost and effective way to address food waste and food insecurity in your school and the greater community. Implementing one in your school can save food from going to waste while also feeding those who may be food insecure. For more information:

- USDA's guidance on share tables: https://fns-prod.azureedge.net/sites/default/files/cn/SP41_CACFP13_SFSP15_2016os.pdf
- Go here to view a sample Share Table/food donation safety protocol: [file:///C:/Users/shukjen/Downloads/Redistribution%20of%20Returned%20Food_Share%20Tables%20\(2\).pdf](file:///C:/Users/shukjen/Downloads/Redistribution%20of%20Returned%20Food_Share%20Tables%20(2).pdf)
- Rutgers Food Waste Reduction resources: <https://njaes.rutgers.edu/school-food-waste/>

How to Make Your Health and Finances “Age Proof”

Barbara O’Neill, Ph.D., *Extension Specialist in Financial Resource Management*



Fifteen years ago, Rutgers Cooperative Extension developed the Small Steps to Health and Wealth™ program to help people make positive behavior changes to improve their health and personal finances. The book *Age Proof* by personal finance author Jean Chatzky and Dr. Michael Roizen of the Cleveland Clinic also discusses this crucial intersection in people’s lives: their bodies and their bank accounts (i.e., health and wealth). The term “age proof” relates to longevity and was defined as “living strong and secure for your whole life.” The book lists dozens of actionable ideas to live a longer, healthier life and build wealth.

Age Proof begins by noting similarities between health and personal finances

- ➔ People count both calories and pennies and tracking current behaviors in both areas of life is useful
- ➔ Periodic diagnostic check-ups are recommended (e.g., cholesterol screenings and net worth statements)
- ➔ People often seek “quick fixes” for health and financial “issues” (e.g., miracle diets and credit repair)
- ➔ People often avoid doing what they know is the right thing to do (e.g., recommended practices)

Part health book and part personal finance, **Age Proof** also includes the following financial management take-aways:

- ➔ **Increase Savings** - With higher life expectancies than generations ago, people need good health and more savings to avoid running out of money. The longer people live, the longer they will live. One in ten 65 year olds will pass age 95. People who live for three decades after they leave the workforce will need a substantial amount of savings to sustain themselves throughout their lifetime.
- ➔ **Perform Financial Check-Ups** - Seven financial diagnostic tests were recommended by Jean Chatzky: income level, expenses, net worth, emergency savings, retirement savings, credit score, and “the mirror test” (i.e., personal changes in lifestyle, goals, and relationships).
- ➔ **Develop Good Habits** - Forty percent of what people do every day is governed by daily habits- not decisions. Establishing positive financial habits (e.g., saving loose change in a jar and automating retirement savings plan deposits) is key to achieving financial goals.
- ➔ **Practice the “Top Five” Financial Priorities** - 1. Earn a decent living, 2. “Pay yourself first” with savings (aim to be part of the 1 in 7 people who save more than 15% of their income), 3. Spend less than what you earn, 4. Protect your financial life (i.e., adequate insurance), and 5. Give back in a meaningful way.
- ➔ **Appreciate Metaphors that Teach Personal Finance**- An example is that overspending on credit cards is like “stretchy pants.” If you stretch too much, the waistband will be under tension “until something pops.”
- ➔ **Understand Financial Stressors** - Financial stress can damage both physical and mental health. Stressors include: insufficient retirement savings, too much debt, out-of-pocket health care expenses, family fights about money, job instability, and lack of college education savings.
- ➔ **Follow Recommended Spending Tips** - Advice given by Chatzky included: 1. Embrace the “B Word” (budget), 2. Choose your spending cuts (e.g., eating out, regular monthly bills), 3. Employ spending savvy, and 4. Reframe expenses to match a meaningful goal (e.g., ten \$4 coffees to pay for a \$40 concert ticket).
- ➔ **Shop Around for Credit** - Key factors in determining the interest paid on debt are the interest rate and length of a loan. The authors note that a 1% drop in the interest rate on a \$200,000, 30-year mortgage can save \$120 a month, \$1,440 a year, and \$43,200 over the life of the loan.
- ➔ **Aim for a Debt-Free Retirement** - A paid-off mortgage is “a pressure-free way to enter retirement.” In addition, trading down to a smaller home with lower property taxes and maintenance expenses can add significantly to a retirement savings nest egg, A \$150,000 profit, with a 4% withdrawal rate, translates into an extra \$6,000 of annual income ($\$150,000 \times .04$).



Chatzky and Roizen stress repeatedly that it is never too late to change bad habits, save money, learn from mistakes, and create automatic systems. Readers are encouraged to be their own CWO (Chief Wellness Officer) and CFO (Chief Financial Officer) and to build a team of professionals, family, and friends to assist them. Each aspect of life affects the other. For example, stress related to debt can impact physical health status and poor health status makes it difficult to enjoy life, regardless of a person’s income and assets.

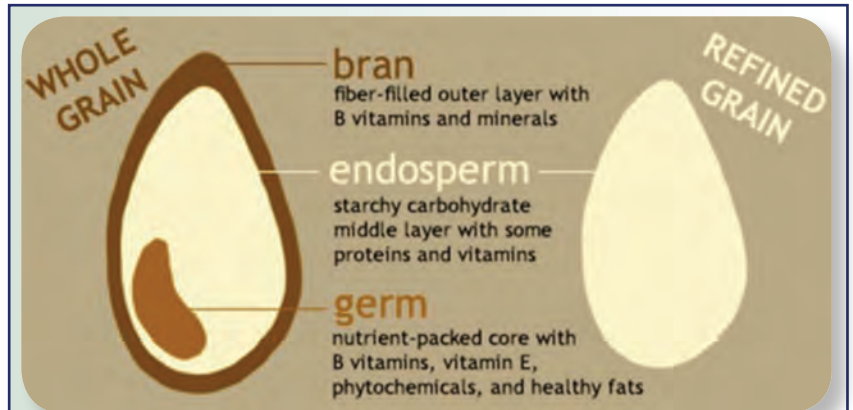
Carbohydrates: A Grain of Truth

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Carbohydrates are a staple food group in the American diet, providing more than half of our daily caloric intake. The vast majority of carbohydrate consumption in the U.S. is derived from grain products. Grains can be divided into two subgroups, whole grains and refined grains. Whole grains exist in their natural state and have not been altered through processing. They contain several vitamins, minerals, fiber, and other health-promoting substances. On the other hand, refined grains undergo processing that changes or removes various components of the original food including valuable nutrients.

Whole grains, legumes, fruits and vegetables are good sources of both soluble and/or insoluble fiber. Soluble fibers are fibers that dissolve in or absorb water to form viscous solutions and can be broken down by the intestinal microflora. This includes pectins, gums, and some hemicelluloses. Good dietary sources of soluble fiber include: legumes, prunes, apricots, raisins, oranges, bananas, apples, eggplant, flaxseeds, and oats. Insoluble fibers are fibers that, for the most part, do not dissolve in water and cannot be broken down by bacteria in the large intestine. This includes cellulose, some hemicelluloses, and lignin. Good sources of insoluble fiber are: wheat bran, whole wheat bread, broccoli, corn, eggplant, apple skins, nuts, and seeds. The daily recommended dietary fiber intake is 25 grams per day for women and 38 grams per day for men. Six to eight of those grams should come from soluble fiber.



Whole Grains Vs. Refined Grains:

- **Whole Grains:** are “whole” because they include all three original parts of the grain. Whole grains include grains like wheat, corn, brown rice, oats, barley, sorghum, spelt, rye, and others. Diets high in whole grains are associated with reduced risk of some chronic diseases
- **Refined Grains:** grains that have undergone processing in which the bran and germ have been removed. Refining a grain removes about a quarter of the protein in a grain and half to two-thirds or more of other nutrients.

Wholesome Whole Grain Health Facts:

<https://wholegrainscouncil.org/whole-grains-101/health-studies>

- ✓ Whole grains deliver as many if not more disease-fighting phytochemicals and antioxidants as do fruits and vegetables. Whole grains contain valuable antioxidants that are not found in fruits and vegetables, as well as B vitamins, vitamin E, magnesium, iron, and fiber.
- ✓ The bran and germ portions of whole wheat flour contribute more than half of the total phenols, flavonoids, lutein, zeaxanthin, and contribute to over 80% of the water-soluble and fat-soluble antioxidant activity.
- ✓ The Dietary Guidelines for Americans recommends that Americans consume at least 3 servings, or half of their grain servings, as whole grains. The average intake of whole grains in the United States today is less than one serving per day.
- ✓ Whole grains are an excellent source of insoluble fiber. Health benefits of fiber may include cardiovascular protection, weight management, improved blood sugar control, and improved digestive health.

Ways to Incorporate Whole Grains

Breakfast:

- Oatmeal with low-fat milk, topped with seeds and berries
- Whole grain cereal with low-fat milk and banana slices
- Avocado slices on whole grain toast and a hard-boiled egg

Lunch:

- Sandwich on whole grain bread
- Turkey on a whole wheat tortilla wrap
- Grilled chicken with mixed vegetables and brown or wild rice

Dinner:

- Whole wheat pasta with meatballs
- Baked salmon with brown rice and broccoli
- Veggie burger on a whole wheat bun

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