Welcome to the School Food Waste Reduction Summit
Welcome

Dr. Brian Schilling, PhD

• Director, Rutgers Cooperative Extension

• Senior Associate Director, NJ Agricultural Experiment Station
Food Insecurity & Food Waste

Dr. Shilpa Pai, MD

• Director, Resident Education in Advocacy & Community Health
• Co-Director, NJ Pediatric Residency Advocacy Collaborative
• AAP District III Community Access to Children's Health (CATCH) Facilitator
• Associate Professor of Pediatrics, Department of Pediatrics, Rutgers-Robert Wood Johnson Medical School
Case Study: Paterson, NJ

Sara Elnakib, RD, MPH
Family & Community Health Sciences Educator, Rutgers University
The Facts about Food Waste

- Approximately **30 to 40 percent of the food supply**, ends up as food waste.
- In 2010, an estimated 133 billion pounds of food from U.S. retail food stores, restaurants, and homes—valued at approximately **$161 billion**—went uneaten.
- The land, water, labor, energy and other inputs used in producing, processing, transporting, preparing, storing, and disposing of discarded food is wasted.
- In 2010, the bill for dumping food into landfills was more than **$2 billion**.

Source: https://www.usda.gov/oce/foodwaste/sources.htm
On September 16, 2015, the first-ever national food loss and waste goal in the United States was launched, calling for a 50-percent reduction by 2030.
 Legislative Genesis

Food Waste Bill S3027
- Signed August 2017
- Establishes 50% MSW food waste reduction by 2030

Food Waste Bill A3056
- Signed August 2017
- Requests guidelines to be written for K-12 and higher education institutions to reduce, recover and recycle food waste

Source: Emily DeMaio, NJDEP Emily.DeMaio@dep.nj.gov
The A3056 food waste bill requires the NJ Department of Agriculture, the NJ Department of Education, the NJ Department of Health, the NJ Department of Environmental Protection and the NJ Office of the Secretary of Higher Education to develop five categories of guidelines for K-8, Secondary, and Higher Education to reduce food waste in schools.

§1 –  
C.13:1E-99.15

P.L.2017, CHAPTER 210, approved August 7, 2017  
Assembly, No. 3056 (Second Reprint)

1 AN ACT concerning 2 the donation of excess food by school  
2 districts 3 food waste in K-12 schools 4 and institutions of higher  
3 education, supplementing Title 5 of the Revised Statutes,  
5

Source: Emily DeMaio, NJDEP Emily.DeMaio@dep.nj.gov
The Guidelines for Schools

- The NJDEP will be releasing the Food Waste Guidelines for both K-12 schools and Higher Education.

- To achieve the goals of Bill S3027 we need to measure baseline food waste.
How to Reduce Food Waste?

Food Recovery Hierarchy

- **Source Reduction**: Reduce the volume of surplus food generated.
- **Feed Hungry People**: Donate extra food to food banks, soup kitchens, and shelters.
- **Feed Animals**: Divert food scraps to animal feed.
- **Industrial Uses**: Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy.
- **Composting**: Create a nutrient-rich soil amendment.
- **Landfill/Incineration**: Last resort to disposal.
Paterson’s Food Waste Program

• Through a partnership with the Paterson Public Schools we conducted an audit to assess the effect of training for Food Service Workers on food waste.

• Paterson Public Schools is under the Community Eligibility Provision

• All students receive free Breakfast & Lunch
We wanted to measure the plate waste before and after the training. We only measured 15 elementary and middle schools that cooked their own meals.

- Sample tray were weighed as a pre-consumption measure.
- After the food was consumed each food component was weighed separately. (fruits, vegetables, milk and entrée [grain/protein])
- Each school was measured twice before and after the training.
Training Program

- Smarter Lunchrooms Movement
- Offer Vs. Serve
Smarter Lunchrooms Movement

- The Cornell B.E.N. Center researches how behavioral economics influences students’ food choices.

- Make healthy choices visible, convenient, and appealing to students

- In the language of behavioral economics, these factors are called Visibility and Convenience, and they influence consumers’ choices.

- Most choices are so subliminal they seem automatic

- Choices influenced by environment

- Change your environment = Change your habits.
Examples of Smarter Lunchroom Strategies

• Focus on Fruits
  • At least two kinds of fruit are offered.
  • Sliced or cut fruit is offered.

• Vary the Vegetables
  • Both hot and cold vegetables are offered.
  • When cut, raw vegetables, are offered, they are paired with a low-fat dip such as ranch, hummus, or salsa.

• Highlight the Salad
  • Pre-packaged salads or a salad bar is available to all students.
  • Pre-packaged salads or a salad bar is in a high-traffic area.

• Move More White Milk
  • White milk is displayed in front of other beverages in all coolers.
  • 1% or non-fat white milk is identified as the featured milk and is labeled with a creative, descriptive name.

• Lunchroom Atmosphere
  • Attractive, healthful food posters are displayed in dining and service areas.
  • Cafeteria staff smile and greet students upon entering the service line and throughout meal service.
Offer vs. Serve

• According to guidelines by the USDA, students do not need to take all 5 components of a meal for the school to be reimbursed for that meal.

• A student may choose 3 out of the 5 components at lunch and the school will be reimbursed as long as the student takes a fruit or vegetable.
Food Waste - Pre Intervention

- Fruits: 530 pounds of waste
- Vegetables: 570 pounds of waste
- Grains: 902 pounds of waste
- Protein: 471 pounds of waste
- Dairy: 902 pounds of waste
2,473 pounds

Wasted in our 30 visits in schools
What does this mean?

- That is approximately **84** pounds of waste per school per day
- Which means it can be as much as **14,838** pounds of waste a year per school.
- **623,196** pounds of food waste for the whole district for the year.
Food Waste: Post-Intervention

- **Fruits**: 380 pounds of waste
  - 28% of Fruit Saved (150 lbs)

- **Vegetables**: 490 pounds of waste
  - 14% of Vegetables Saved (80 lbs)

- **Grains**: 449 pounds of waste
  - 5% of Grain & Protein Saved (22 lbs)

- **Protein**:

- **Dairy**: 804 pounds of waste
  - 10% of Milk Saved (98 lbs)
350 pounds of food saved after our training
What does this mean?

- That is approximately \textbf{12} pounds of waste \textbf{SAVED} per school per day
- Which means it can be as much as \textbf{2,160} pounds of waste \textbf{SAVED} a year per school.
- \textbf{90,720} pounds of food waste \textbf{SAVED} for the whole district for the year.
$76,452

cost savings for the school district per year
Panel Discussion

David Buchholtz
Director of Food Services, Paterson Public Schools

Jennifer Apostol
Director of MCFOODS

Jennifer Shukaitis
Family & Community Health Sciences Educator, Rutgers University

Dr. Shilpa Pai
Director, Resident Education in Advocacy & Community Health, Rutgers-Robert Wood Johnson Medical School
Thank You