



New England  
**Dairy**

Thanks for joining!  
The webinar will  
begin shortly.





# Thank You for Being Our Heroes!





# Webinar Housekeeping

- You are muted
- Write questions in the Q&A box
- Evaluation and CPE certificate will be emailed after the webinar
- Stay connected by following:
  - @NewEnglandDairy
  - @ConnecticutDairy
- Funding for this project was paid for by New England Dairy and the Connecticut Milk Promotion Board.





# Agenda

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Welcome & Introductions

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Why School Milk

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Where your Milk Comes From

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HACCP Review

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Best Practices for Top Quality Milk

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Next Steps

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# Today's Presenters



Amanda Aldred, RD, SNS  
Manager, School Nutrition  
New England Dairy



Becca Story, MS, RD, LD  
School Nutrition Specialist  
New England Dairy



Erin Wholey, RD, LDN  
Director, Youth Wellness  
New England Dairy



Lonnie Burt, MS, RD, CD-N  
Senior Director  
Food & Child Nutrition  
Services  
Hartford Public Schools, CT



# Learning Objectives

- Explain the nutrient contributions of milk in the diet and why it is included in the school meal patterns.
- Describe where milk comes from and how it is protected along the path from farm to school.
- Identify how to properly receive, store, and serve milk to protect its safety and flavor in their school.

## Suggested Learning Codes

- 1320 General Nutrition
- 1130 Local Foods - Farm to School
- 2610 HACCP



# Why is milk so important?



# Milk Facts – Kids & Dairy

- 2020-25 US Dietary Guidelines for Americans
  - Based on scientific review of body of evidence
  - Recommends:
    - 2-3 cup servings of low-fat or fat-free dairy for children 2-8 years old depending on calorie needs
    - 3 servings of low-fat or fat-free dairy for children 9 years old and older
  - National Dietary Guidance policy for programs like school meal programs

77% of daily milk consumption for low-income children aged 5-18  
came from school meal





# Milk the Nutrient Powerhouse

## Also contains:

Potassium★  
Zinc  
Selenium  
Iodine

★ Nutrient of Concern



# What Happens When Students Choose Milk with School Meals?

**One 8oz serving  
of milk provides  
to kids' diets:**



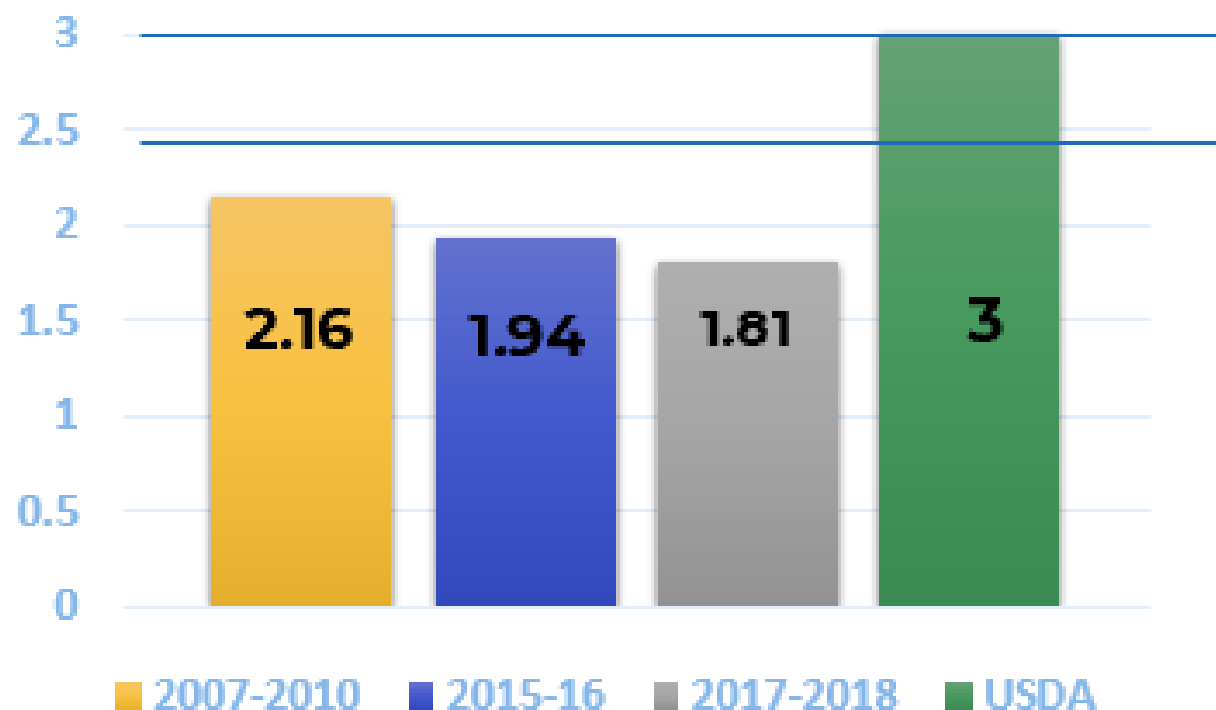
**13% (8 g) protein\***  
**60% of vitamin D\***  
**33% calcium\***  
**19% potassium\***

\*In reference to the percent of recommended for one day.



# Kids Are Missing Out on Key Nutrients

Average cups of dairy/day (2-19 year olds)



**70% of girls and  
60% of boys  
don't get enough  
calcium**

\* USDA ERS Food Consumption. Average daily intake of food group by food source and demographic characteristics, 2007-2010, 2015-16 and 2017-18

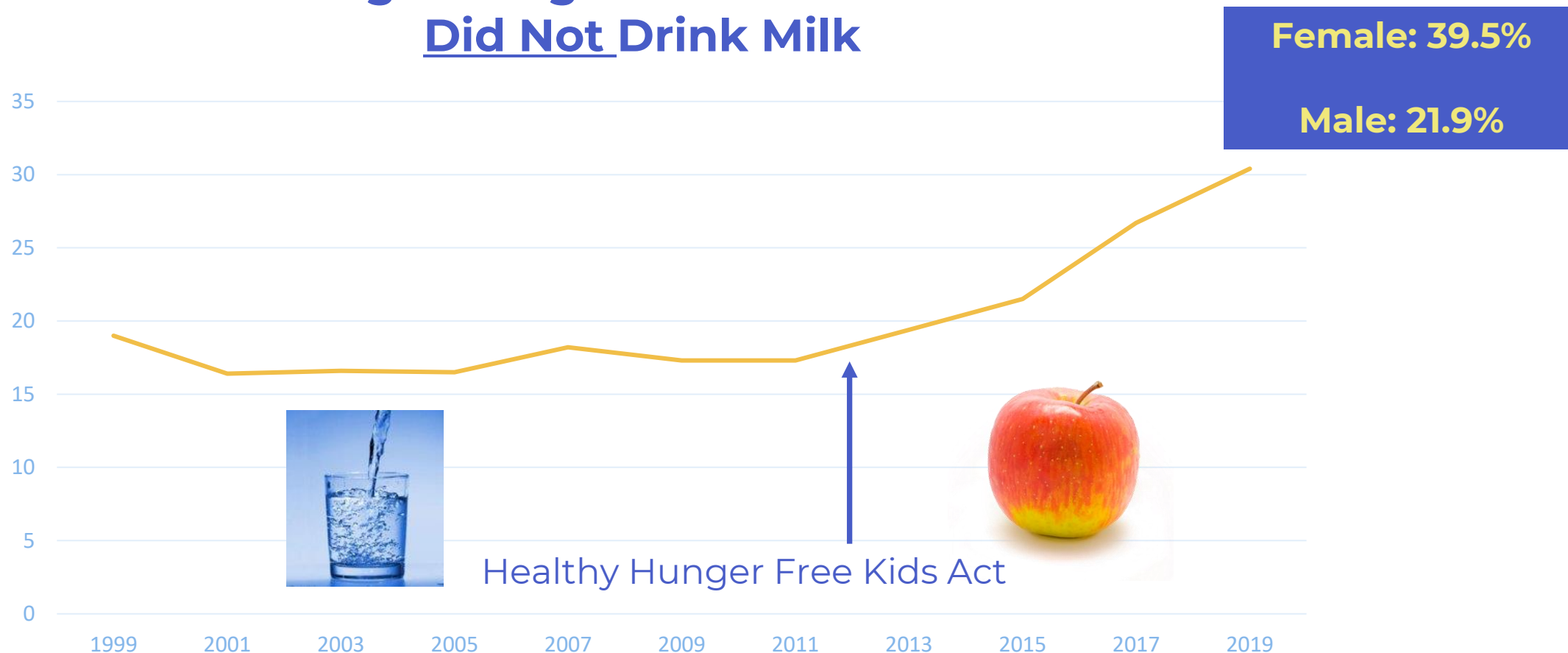
\*U.S. Department of Agriculture and U.S. Department of Health and Human Services. Scientific Report of the 2015 Dietary Guidelines Advisory Committee. Appendix E-2.1. First Print, 2015.

\*Fulgoni VL, Keast DR, Quann EE, Auestad N. Food sources of calcium, phosphorus, vitamin D, and potassium in the U.S. The FASEB Journal. 2010;24:325.1.



# Milk Consumption in Schools Nationwide

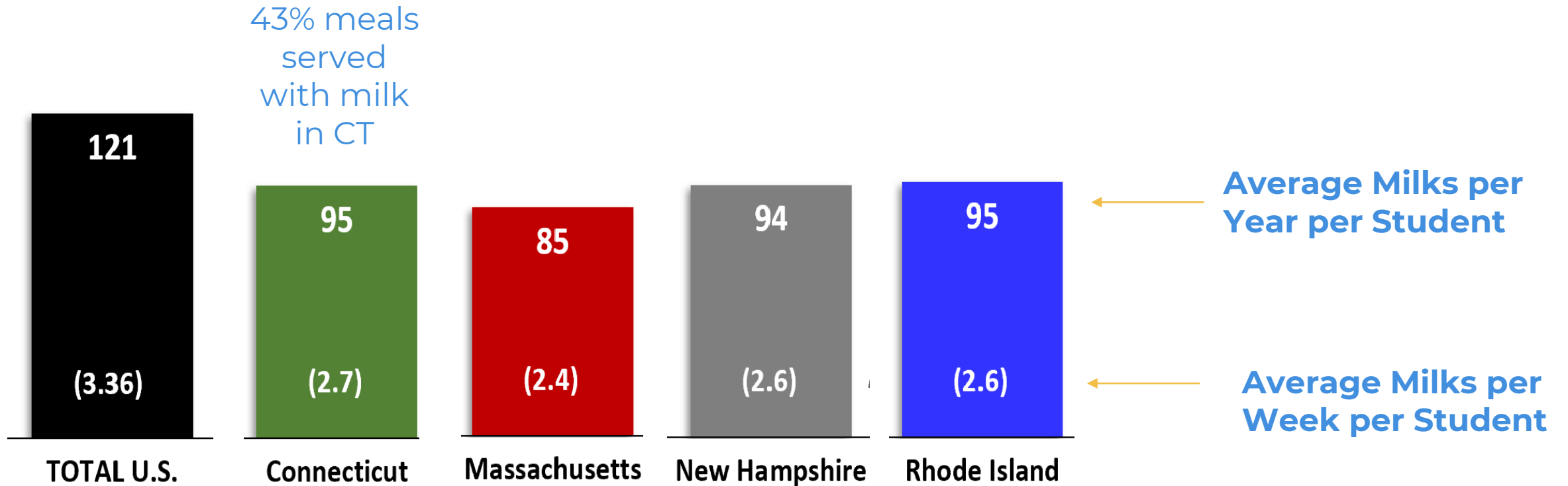
## Percentage of High School Students Who Did Not Drink Milk



*\*National Youth Risk Behavior Surveys, 1999-2019*



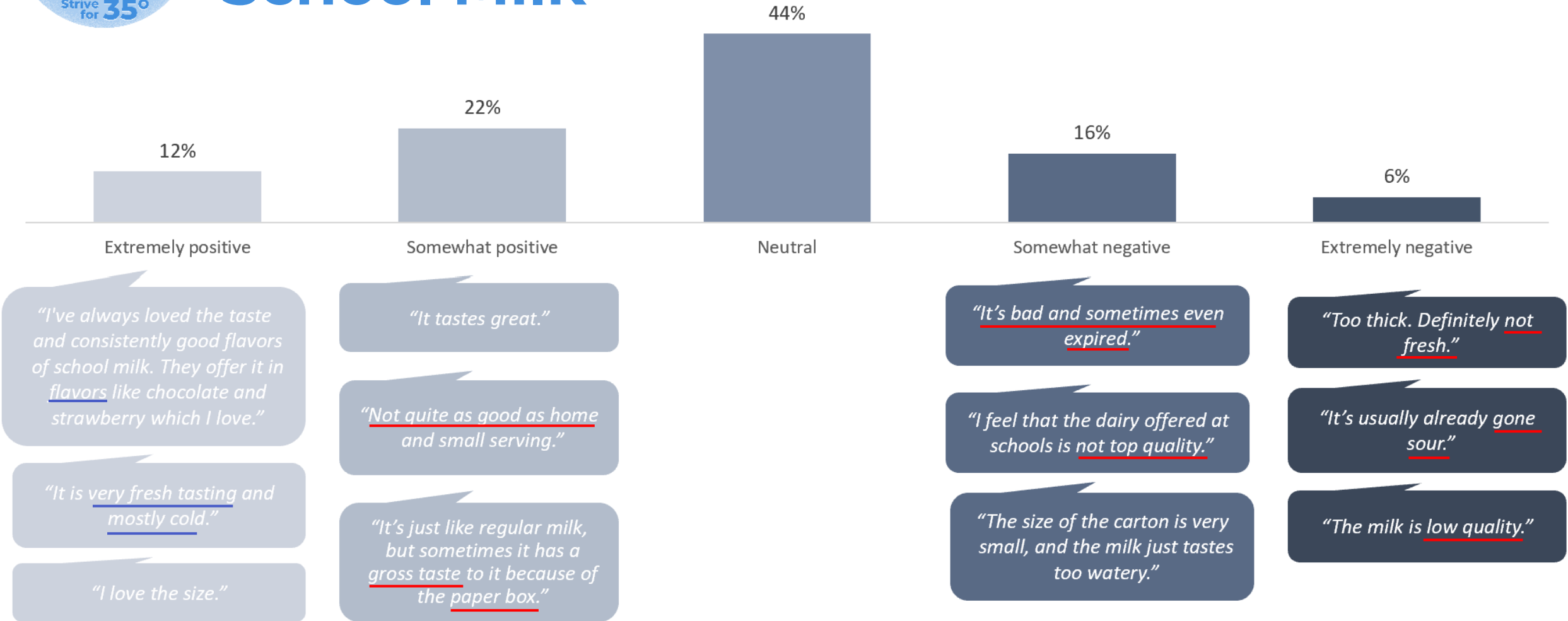
# School Milk Consumption in New England



*\*Meal sales information only available in CT. Milk sales information not available for VT.*



# What New England Teens Say About School Milk



**Question:** How would you describe your overall perception of the dairy milk offered at school?





# Where does New England school milk come from?



# Dairy Farming in New England

- **~1,000 dairy farms** in our 5-state region of New England
  - VT: 660
  - NH: 100
  - MA: 125
  - CT: 90
  - RI: 9





# Cow Care: The Foundation of Life on New England Dairy Farms

- Prioritizing cow comfort:
  - Comfortable bedding
  - 24-hour access to food and water
  - Climate-controlled barns
  - Well-balanced and customized diet
- Dairy cows produce 8 gallons of milk/day
  - A dairy cow will only give her milk if she is comfortable and relaxed







# Local dairy farms committed to sustainability

- Dairy farms in 5-state region protect **828,000 acres of greenspace**
- Environmentally responsible practices for land management:
  - **Cover cropping** to protect soil quality and build soil health
  - Cow manure as a resource
    - **Natural fertilizer** for crop fields
    - Recycling it as **compost or bedding**
  - **25 anaerobic digesters** that convert cow manure and food waste into useable energy





# US Dairy 2050 Sustainability Goals

In 2017 US Dairy used 30% less water, 21% less land, and had a 19% smaller carbon footprint than in 2007. We are not stopping there, by 2050 we are committed to:

1. Become carbon neutral or better.
2. Optimize water use while maximizing recycling.
3. Improve water quality by optimizing utilization of manure and nutrients.



# Protecting Milk on a New England Dairy Farm



**Nicole Fletcher**  
Fletcher Farm  
Southampton, MA





# Milk from farm to processor

- Milk becomes
  - Fluid Milk
  - Cheese
  - Yogurt
  - Other dairy products
- Tankers are insulated to keep milk cold during transport
- Milk is processed close enough to the farm to keep it cold and safe in route
- Milk is tested on the farm to ensure each load is safe and free of antibiotics.





# Milk at the processing plant

- Tested
  - For safety & antibiotics
- Separated
  - Cream is separated out
  - Added back to make consistent fat levels
- Pasteurized
  - Heated to a high temp for a short period of time
- Homogenized
  - Sent through a fine filter to disperse the cream
- Flavored/Enriched/Fortified
- Bottled
- Out for distribution



**Pasteurizing Equipment**



**How can schools properly receive, store, and serve milk to protect its safety and flavor?**



# HACCP Review

- HACCP: Hazard Analysis Critical Control Point
- Hazard Types
  - Biological
  - Chemical
  - Physical



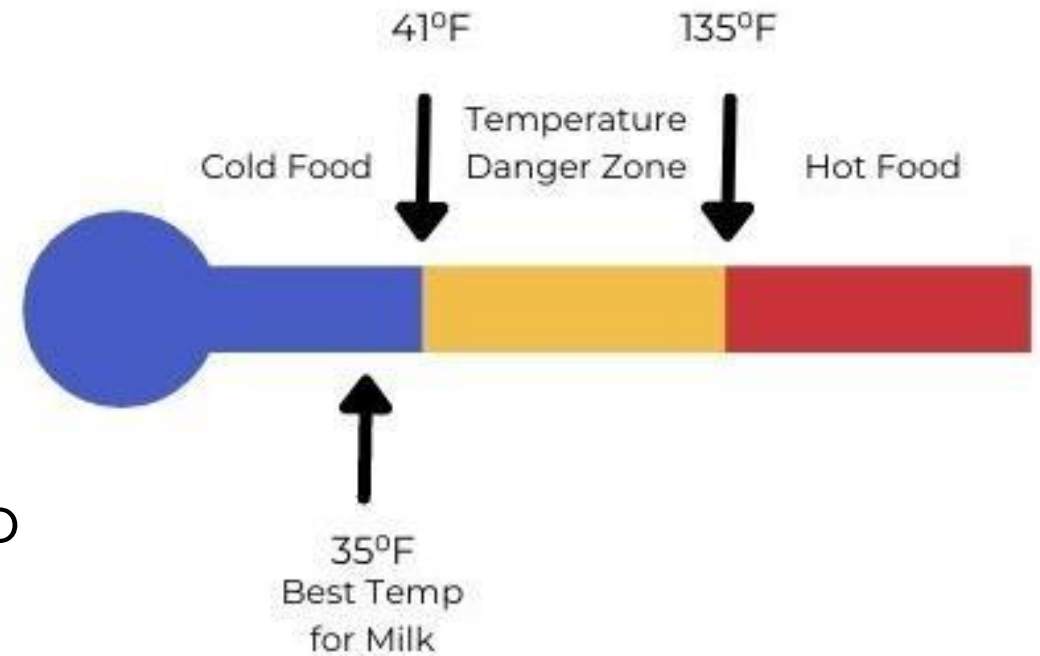
# Controlling Biological Hazards

- Biological hazards occur when food is contaminated
- Controlling time and temperature of food is critical
- Microorganisms grow rapidly in the temperature danger zone



# Temperature danger zone & optimal storage temp for milk

- Keep potentially hazardous foods out of the temperature danger zone.
- Hot food must be properly cooked and kept above 135°F.
- Cold food must be kept below 41°F.
- The ideal storage temp for milk is 35°F to 40°F.
  - **STRIVE for 35°F** for the best tasting milk!
  - For every 5°F increase over 40°F milk loses 50% of its shelf-life.







# Thermometer use and calibration

1. Fill a container with crushed ice.
2. Add water to meet the top of the ice.
3. Insert thermometer & wait for 30 seconds.
  - Be sure the dimple is submerged.
4. Adjust the dial to 32°F.
5. For digital thermometers check manufacturer instructions

1



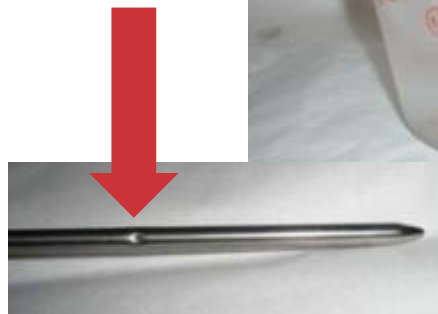
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# Critical Control Point (CCP)

- Points at which loss of control could result in a food safety risk
- Common temperature related CCPs
  - Cooking
  - Cooling
  - Hot Holding
  - Cold Holding
- Common problem areas for milk
  - Delivery/Receiving
  - Storage
  - Transport
  - Serving





## Delivery/Receiving

- Look for dirty or damaged containers.
- Ensure the sell-by date is later than its planned use date.
  - Two weeks in advance is preferred
- Check the temperature of one of the containers.
- Take milk immediately to storage upon delivery.





## General Milk Storage Tips

- Rotate milk (FIFO – First in First Out)
  - Freshest milk should be on the bottom or in the back of the cooler
- Store away from other foods, especially those with a strong odor.
- Check cooler temp twice daily.
  - Keep refrigerator temp between 33°F and 40°F. Strive for 35°F!
- Wipe up spills immediately and clean regularly.





## Storage (Walk/Reach-in Cooler)

- Keep the freshest milk in the back
- Close door immediately after entering and exiting
- If your cooler has curtains, make sure they are clean and in good condition
- Allow for air flow around cases





# Storage & Service (Milk Cooler)

- Store milk below the chill line, as close to the bottom as possible.
- Check temp of milks at beginning and end of lunch weekly
  - Milk temp should be between 33°F and 40°F, 35°F is ideal
  - Milk cooler thermostat should be set so milk is no warmer than 35° F at beginning of lunch, but not cold enough to freeze
- Keep cooler closed until service begins
- Close cooler door during breaks in service
- Do not point fans at milk cooler (fans can pull cold air out of cooler, warming milk)







# Alternate Site Service Tips



- Keep milk cold with:
  - Cooler barrel
  - Smaller cooler on wheels
  - Insulated cooler bag
  - Pan of ice
  - Ice Packs
    - Put ice packs on bottom and top of coolers



# If the temperature of milk rises to 45°F its shelf-life is cut in half!



- Do not leave milk out in the open without refrigeration.
- Unopened milks taken by students should be discarded.



# Cooler Maintenance

- Wipe cooler out daily
- Clean with soap and water, and flush drains regularly
- Door latches & gaskets should be in working order and tight and clean
- Do not allow ice to form on cooler walls, ice decreases cooler efficiency
- Air vents and condenser unit should be clean and free of dust and debris





# Tips from Schools with High Milk Sales

## Jeanett LaPlume (Putnam, CT)

- Offering warm chocolate milk at breakfast to middle and high school students
- Offering a variety of flavors

## Erin Perpetua (Norwich, CT)

- Make milk the first option for students
- Don't put juice in the cooler (will compete with milk)\*
- Offer a variety of flavors

## Janice King (Auburn, MA)

- Work hard to keep the milk as cold as possible
  - Test milk temp on delivery (bottom and middle of crates)
  - Adjust milk cooler temps to reflect placement and time of year
  - Close the cooler between service times
- Marketing and promotion.  
Ex. Uses refuel messaging with athletes





# Tips from Schools with High Milk Sales

## Ryan Hurley (Central Falls, RI)

- Offering Breakfast in the Classroom
- Promotions and interactive presentations in the classrooms to educate students

## Amanda Muniz (Chelsea, MA)

- Milk is the first option students see
- Café staff, principals, and teachers encourage students to grab and drink their milk
- Showcase milk in pictures of meals
- Offer Breakfast in the Classroom

## Trish Molloy (Region 1, CT)

- Milk is the first option students see
- Keep it as cold as possible
- Clean the milk cooler twice a week

## Robert Espinoza (New Britain, CT)

- Increased to four types of milk (3 flavored and one plain) and promote new milk options
- Posters in elementary schools highlighting the importance of milk



# Top Ways to Increase Milk Consumption

- ✓ Offer a variety of flavors and options
- ❄ Keep milk cold
- ✗ Make it the first option in the serving line
- 🔪 Market and promote in and outside of the cafeteria
- 🐮 Nudge students to take milk





# Next Steps & Cooler give away details

**Step 1:** Complete the post-webinar evaluation survey by **May 14<sup>th</sup>, 2021** (will be send via email following the webinar)

- One person from each state (CT, MA, NH, RI, VT) will be randomly selected to receive a **milk barrel cooler or insulated milk tote**

**Step 2:** Complete and submit the milk temperature survey by **May 31<sup>st</sup>, 2021** (Scan the QR code or visit NewEnglandDairy.com to access)

- One person from each state (CT, MA, NH, RI, VT) will be randomly selected to receive a **refrigerated milk cooler**

Thank you for participating in New England Dairy's "Strive for 35°" program. Once your testing is completed, please submit your data via one of two methods:

- Via an online survey found on the Keep Milk Cold section of NewEnglandDairy.com (scan the QR code above)
- Email results to info@newenglanddairy.com

New England Dairy will offer incentives throughout the year to encourage schools to submit this milk temperature survey. Check NewEnglandDairy.com for details.

SCHOOL NUTRITION DIRECTOR: \_\_\_\_\_ DATE: \_\_\_\_\_  
SCHOOL NAME: \_\_\_\_\_  
NAME OF PERSON COMPLETING THE SURVEY: \_\_\_\_\_  
EMAIL: \_\_\_\_\_  
SCHOOL ADDRESS: \_\_\_\_\_ CITY: \_\_\_\_\_  
MILK SUPPLIER/PROCESSOR: \_\_\_\_\_ TITLE: \_\_\_\_\_  
STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

PLEASE TELL US WHAT KIND OF MILK YOUR SCHOOL SERVES. CHECK ALL THAT APPLY:

FLAVOR

A. White ☐ Fat free ☐ 1% Low fat ☐ Cream ☐ Other  
B. Chocolate ☐ Fat free ☐ 1% Low fat ☐ Cream ☐ Other  
C. Strawberry ☐ Fat free ☐ 1% Low fat ☐ Cream ☐ Other  
D. Other (specify) ☐ Fat free ☐ 1% Low fat ☐ Cream ☐ Other

7 CHECK YOUR MILK TEMPERATURES:  
Select a day and test your milk temperatures before, during, and after service. If students can select milk from more than one location, please be sure to check at least two of those locations (coolers, insulated barrels, bags, ice pans, etc.).

MILK CONTAINER TEMPERATURES:  
• Beginning of meal service  
• Halfway through meal service

SERVING LOCATION #1 \_\_\_\_\_ SERVING LOCATION #2 \_\_\_\_\_

SCAN HERE



# Questions?



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