URBAN SCHOOL FOOD ALLIANCE

Shelf Stable Milk

Dallas ISD Food & Child Nutrition Services

Practice Summary

Objective- Conduct market research in the Dairy industry.

Purpose- Identify the feasibility and cost of a school district to change towards a 100% shelf-stable milk service model for Direct Delivery to school sites.

Results- The manufacturers can provide competitive pricing of shelf stable milk to deliver to 1 central site. Fresh Dairy Farms/Processors can adjust the cost of shelf stable milk and deliver to school sites, but state Fresh Milk is the better $ value.

Planning & Implementation

Identified Need

Preliminary Research Conducted as a Pilot (9 Schools) in 2022 in Dallas ISD

Pilot Recap:

- The pilot tested student use of aseptic milk instead of the traditional gable top carton packaging.
- Student Meal Participation rose 9%
- Student Milk Consumption rose 12%, 14.4% vs rest of district
- Waste declined by 5%
- We successfully self-distributed shelf stable milk from our Central Warehouse to all 9 schools reducing local distribution miles driven and cost.
- Ultimately, we do not have the space in our central warehouse to expand this pilot to 100% of our schools thus the need for more market research.

Identified Need Cont.

Factors that drive the need for Shelf Stable Milk:

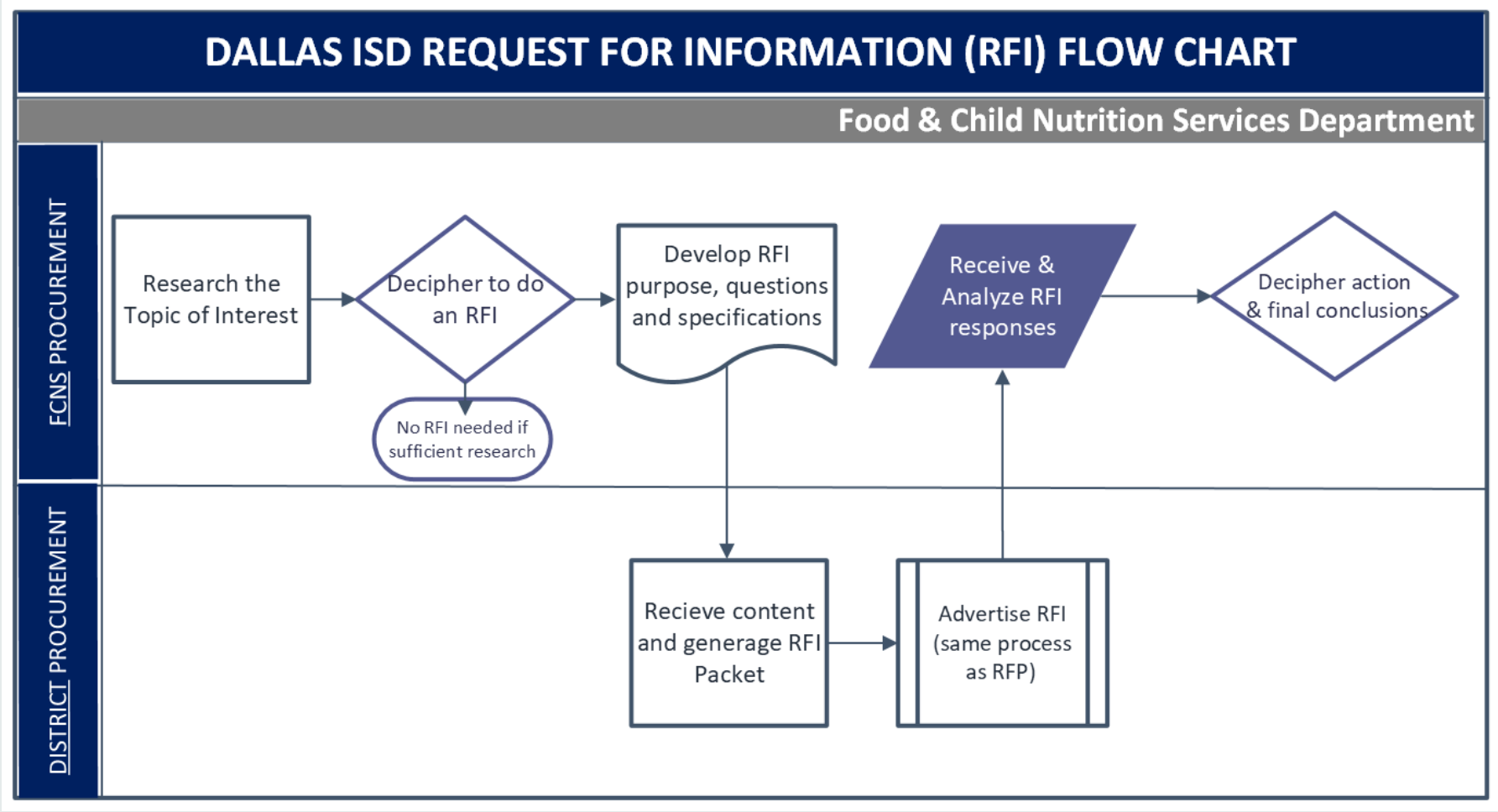
- Storage without refrigeration helping provide continuity of service during power outages
- Longer shelf life helping reduce milk spoilage and waste
- Growing demands on transportation and distribution networks
- Later consumption for students on the go
- A focus on sustainability which contributes to lowering greenhouse gas emissions and carbon footprint.

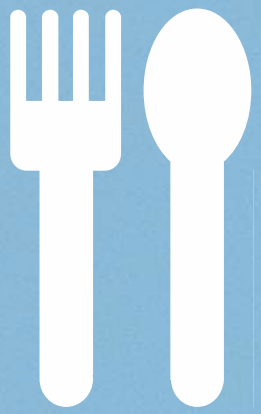
Stakeholder Engagement

Engaged stakeholders through an RFI:

- Fresh Dairy Farm Processors
- Shelf Stable Milk Manufacturers/Distributors
- Discovered new companies in the process

Practice Timeline





Outcomes & Impact

Data Collection

Subjective Information

- A series of questions were asked in the RFI

  2 Target Audiences:

  - Fresh Dairy Farm Processors
    - 5 Questions
  - SS Milk Manufacturers/Distributors
    - 9 Questions

MANUFACTURERS
1. Are there any interests or value for manufacturing food facilities to supply and deliver shelf-stable milk to local school districts rather than to a single distribution warehouse? Please explain why or why not. ---------- Type ..... Provide your answer below
2. What would be the possible delivery frequency to multiple destination loads (various school sites)? (e.g., Daily, 2 times per week, 3 times per week, weekly only, etc.) ----------

Data Collection

Pricing Information

- Responders were asked to provide the unit pricing for shelf stable milk based on our Fresh Milk Annual Usage for Direct Delivery to School :
  - Chocolate Milk 1%, SS
  - White Milk 1%, SS
  - Lactose Free Milk 1%, SS
  - $ Minimum Order, $ Delivery Drop

RFI PRICE

Item #	Milk Item	# Pints Annual Usage	Cost/ Pint	Brand/Product Code
1	MILK, CHOCOLATE, 1%, 1/2 PINT, SHELF STABLE	17,618,637		
2	MILK, WHITE, 1%, 1/2 PINT, SHELF STABLE	7,243,092		
3	MILK, WHITE, LACTOSE FREE, 1/2 PINT, SHELF STABLE	39,061		

Item #	Services	Cost
1	DELIVERY COST PER DELIVERY STOP	
2	MINIMUM ORDER DOLLAR AMOUNT PER SITE	

Baseline Data (FCNS)

Already Established Data for Dallas ISD-FCNS

- There are no SS Milk manufacturing plants in Texas currently, which means our out of state SS Milk supply typically have longer lead-times slowing our access to SS Milk.

AVG Fresh Milk Consumption (Aug-May)

- 24,900,790 cartons/year

AVG Fresh Milk Cost (Aug-May):

- $0.33 cents per carton

- Calculated SS Milk per month needed to sustain our current velocity from fresh milk.
  - 1 FTL of SS Milk is 2,640 Cases; 594 Pallets; 71,280 units
  - We would need 35 FTL/month of SS Milk:
    - 92,400 Cases; **20,790 Pallets;** 2,494,800 units
  - Current FCNS Warehouse Dry Food Capacity= **3,890 Pallets**

Outcomes

Per the RFI Responses, the following determinations have been made:

- It is not cost effective to switch to a 100% shelf-stable milk model where the manufacturer/distributor directly delivers the SS Milk to our schools.
- It is cost effective to switch to purchasing “Lactose Free Milk 1%” directly from the manufacturer into our FCNS Warehouse.
  - AVG cost SS Lactose Free Milk from our current vendor is **$0.70 cents/unit**.
  - RFI pricing submission from Manufacturer A is **$0.38** cents/unit for delivery to FCNS WH.
    - ½ Truck Load will cover the need for the year. Will inquire on mixing pallets with other products for FTL purchases.
  - RFI pricing submission from Distributor B is **$0.63** cents/unit for direct delivery to schools.
    - Can make an immediate change as Distributor B is a current awarded Vendor.

Next Steps

What now?

- Share RFI findings with other large districts.
- We invite other large districts to do market research for a national collection of information and see if its cost effective to switch in their state.
- Additional market research is needed to identify incurred costs for central warehouse storage hubs to store shelf stable milk and further seek if this may be an alternative feasible cost-effective pathway.
    - Dallas ISD-FCNS currently has an RFP for an Offsite Warehouse Food Storage for emergencies. We can assess the pricing response for further research incurred costs to store SS Milk.

Lessons Learned

- What can be done differently is to identify the right terminology known to each industry to lessen confusion when the RFI is advertised.
  - Our current Dairy Distributor uses “Dairy Farms” in their company name but in the RFI they initially did not fill out the questions under Dairy Farms because they identify as a “Processor”.
  - The term “Direct Directly” was confusing to some companies. They interpreted the term as us delivering direct to schools when we mean for them to deliver direct to schools.
- Responders were not familiar with RFI’s which also caused confusion thinking they would potentially win a bid award.
  - Clarify the difference between an RFI and RFP in the pre-proposal meetings that are open to bidders during the advertisement period. In addition, review all specifications, questions and pricing instructions as well.

Contact Information

Debi Rowley, MBA

Executive Director, Food & Child Nutrition Services

Dallas Independent School District

drowley@dallasisd.org

Practice overview

This questionnaire will be used to populate a best practices handout for the selected practice in your district. The handout will be uploaded to the Urban School Food Alliance website for members and school nutrition professionals to view and download. The purpose of the handout is to share the innovative solutions that Urban School Food Alliance members are creating, including information that would be helpful to other school districts in adapting or replicating your success.

Below are the handout sections, including optional questions to guide you as document your planning, implementation, and evaluation steps.

PRACTICE NAME	RFI: Shelf Stable Milk

DISTRICT	Dallas Independent School District (Dallas ISD)

TOPICS

[ ] Central Kitchen Operations
[ ] Marketing & Communication
[ ] Funding & Grant Writing
[ ] Finance & Accounting Practices
[ ] Regulatory Compliance
[ ] Quality Assurance
[ ] Student & Family Engagement
[ ] Menu & Recipe Development
[ ] Workforce Development
[ ] Kitchen Design & Equipment
[ ] Inventory & Warehouse Management
[x] Local Procurement & Farm-to-School

PRACTICE SUMMARY

Dallas ISD Food & Child Nutrition Services (FCNS) conducted market research to explore the feasibility of transitioning to a 100% shelf-stable milk service model for direct delivery to school sites. This innovative practice stemmed from a need to address logistical and sustainability challenges, including storage without refrigeration, waste reduction, and improved transportation efficiency. The district piloted the use of aseptic shelf-stable milk in 2022 across nine schools and saw notable improvements in student meal participation (+9%), milk consumption (+12%), and reduced waste (-5%).

Key elements of the practice included engagement with shelf-stable milk manufacturers and dairy farm processors through an RFI (Request for Information), pilot implementation to collect baseline data, and assessment of the cost-effectiveness of transitioning to shelf-stable milk. While the study determined it was not cost-effective to adopt a districtwide shelf-stable model, the practice identified alternative opportunities, such as procuring lactose-free shelf-stable milk directly from manufacturers for central warehouse storage.

IDENTIFIED NEED

The practice was initiated in response to several operational points, including:

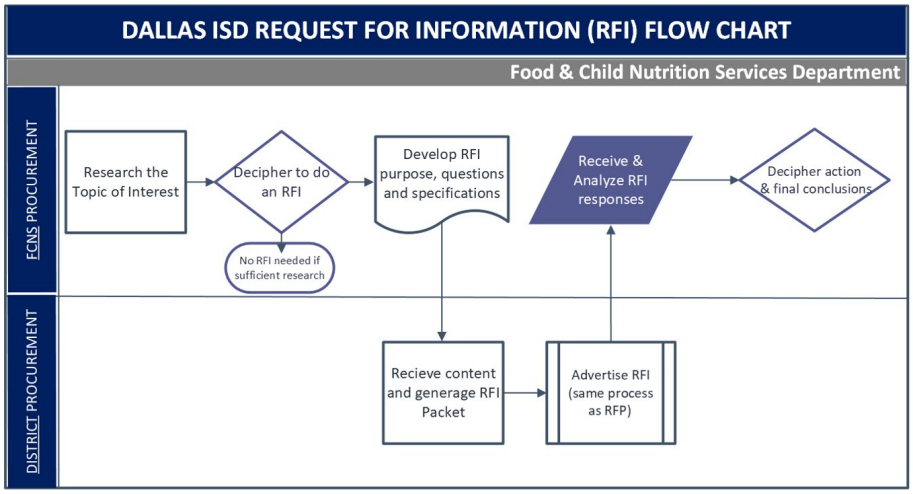
- → *The need for a reliable milk supply during power outages and other emergencies.*
- → *High levels of waste associated with spoilage and short shelf life.*
- → *Preliminary research conducted during the 2022 pilot showed promising results, including increased student participation and decreased waste. However, further market research was needed to assess the feasibility and cost implications of scaling this model districtwide.*
    - ***Success Metrics:***
        - *Student meal participation increased by 9%.*
        - *Student milk consumption increased by 12%.*
        - *Waste reduced by 5%.*
    - ***Data Insights:*** *The pilot confirmed that shelf-stable milk can be distributed from the central warehouse, reducing local distribution costs and emissions. However, limited warehouse capacity presents a challenge for districtwide implementation. Additionally, it was determined that transitioning to a 100% shelf-stable milk model was not cost-effective due to higher overall expenses compared to fresh milk delivery. However, procuring lactose-free shelf-stable milk directly from manufacturers proved to be a feasible and cost-effective alternative*

STAKEHOLDER ENGAGEMENT

Engaged stakeholders through an FRI

- *Fresh Dairy Farm Processors*
- *Shelf Stable Milk Manufacturers/Distributors*
- *Discovered new companies in the process*

PRACTICE TIMELINE

- 

→ *Additional Opportunities: Further market research to assess storage and transportation costs for districtwide implementation.*

NEXT STEPS

→ Sharing findings with other large districts to encourage national data collection and collaboration.

→ Conduct additional market research to explore the costs of offsite storage solutions for shelf-stable milk.

→ Continuing to assess long-term sustainability and cost-effectiveness of transitioning to shelf-stable milk across Dallas ISD schools.