

Tribal Health and Resilience in Vulnerable Environments “THRIVE” Study

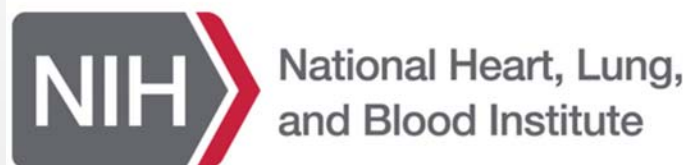
Presentation to IRINAH Group
National Cancer Institute
May 30, 2017

Valarie Blue Bird Jernigan, DrPH, MPH
Valarie-Jernigan@ouhsc.edu

Acknowledgements



Choctaw Nation of Oklahoma
Chickasaw Nation



THRIVE is funded by the National Heart
Lung and Blood Institute
(Grant #R01HL117729)

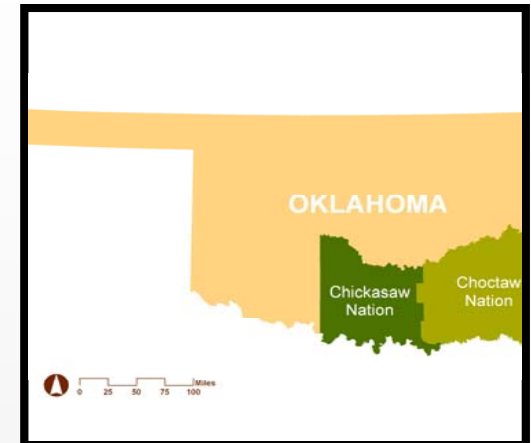


This is one of many grants funded through
“Interventions for Health Promotion and
Disease Prevention in Native American
Populations”

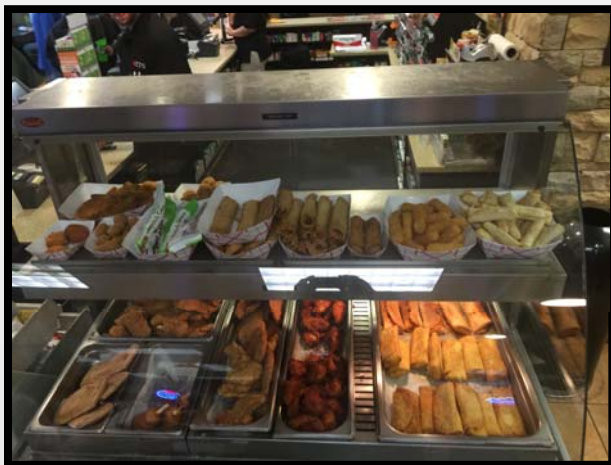
We thank our partners for making this work possible!

THRIVE Study Overview

- Aims to improve tribal food environments in Chickasaw and Choctaw Nations by implementing “healthy makeovers” in tribal convenience stores
- RCT – 4 intervention and 4 control communities in each Nation (total cohort n=1620)
- Primary Outcomes:
 - Store level changes in fruit and vegetable availability (*measured by store inventory, sales receipts, and nutrition environment measures scores*)
 - Individual-level intake of fruit and vegetables (*measured by self-report questionnaires*)
- Strategies employed: pricing, promotion, placement, and new product



Objective food environment measures



- Adapted and localized Nutrition Environment Measures Survey (NEMS) for stores (NEMS-S) and restaurants (NEMS-R)¹
 - Observational measures
 - Assess healthier options, price, and quantity
- GIS training to map findings with local community environments

¹Glanz, Karen, et al. "Nutrition Environment Measures Survey in stores (NEMS-S): development and evaluation." *American journal of preventive medicine* 32.4 (2007): 282-289.

Adapting and localizing specific strategies

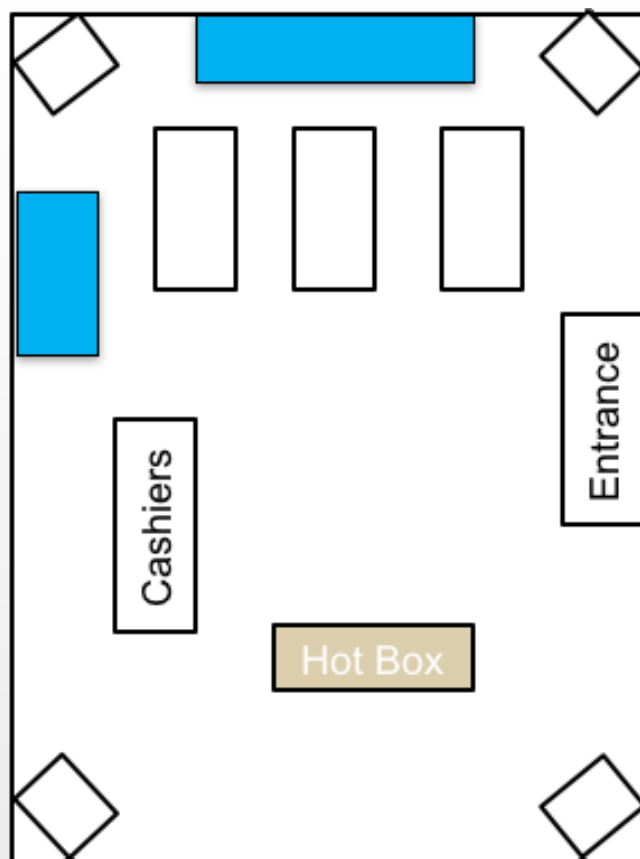
- Total of 12 focus groups conducted (8-10 individuals per group) with patrons and workers
- Incorporated taste tests to identify and rank products
- Used interactive rating software to assess price points
- Reviewed various designs to assess promotion/messaging
- Tribal members reported they were more likely to try healthy foods that:
 - Were priced at the same or lower prices as non-healthy foods (approximately 30% off SRP)
 - Were sold in tribal stores where revenue supported tribal economy
 - Were tribally sourced and/or endorsed with tribal store logos



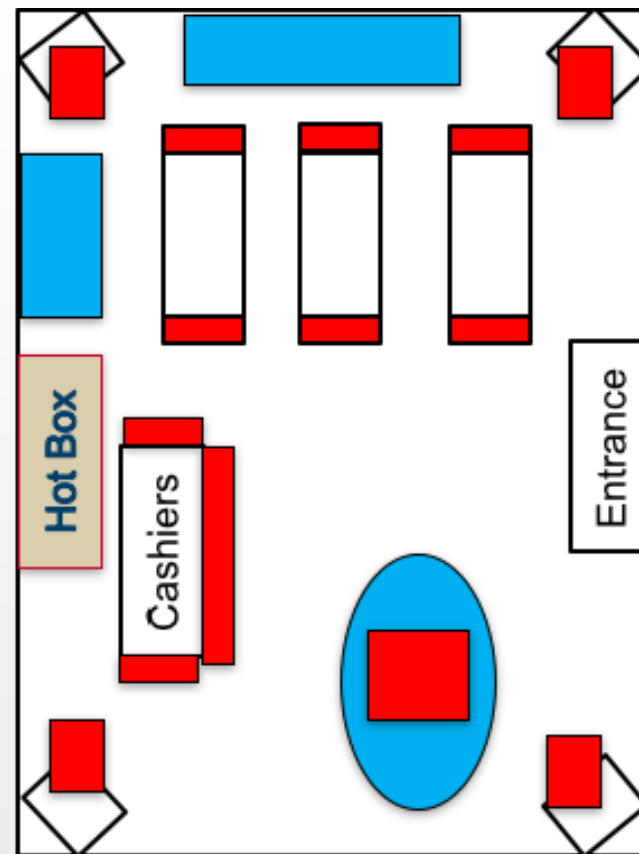
Specific Intervention Strategies¹

Strategy	Implementation
Product	<ul style="list-style-type: none"> • Increased availability, variety, and convenience (i.e. at least 10 new snack choices and 5 new meal choices) • Packaging of vegetable and fruit “quick packs” • Choctaw Nation expanded kitchen to prepare and serve these items in house
Placement	<ul style="list-style-type: none"> • Large open air coolers were purchased and placed at the front entrances of stores • Fried food hot boxes removed to behind registers • Endcap spaces “rented” to stock with healthy foods
Promotion	<ul style="list-style-type: none"> • Foods, shelves and coolers labeled; • Promotional signage (e.g. “fresh food destination,” “good and good for you,” etc.) placed above coolers
Pricing	<ul style="list-style-type: none"> • Combination meal, snack, and bottled water at discount prices • All meals/snack priced at or below competing foods

¹Guided by NEMS criteria, ≤500 calories; 30% or fewer calories from fat; “whole foods” guidelines that promote unprocessed foods, local, tribally sourced when possible



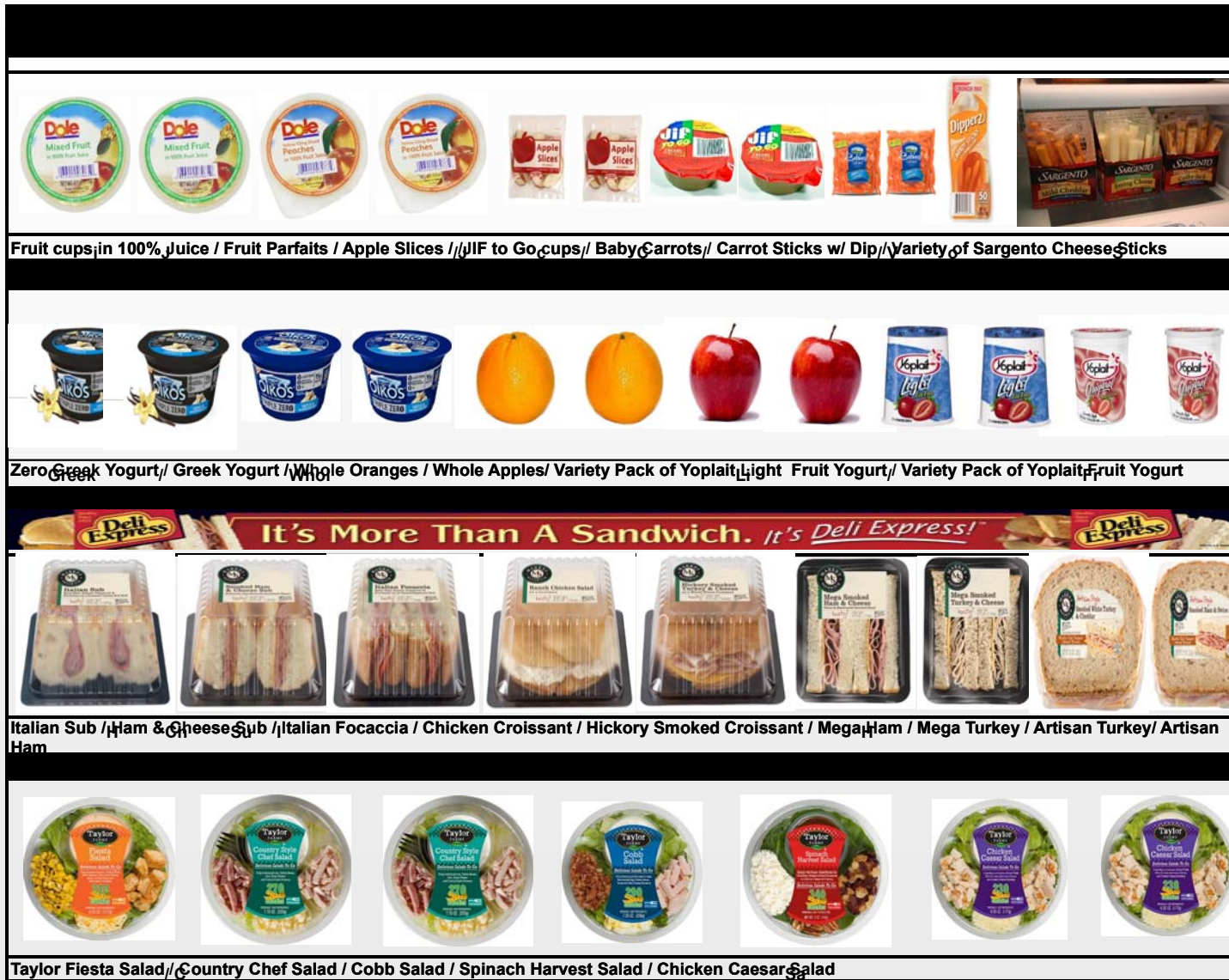
a. Store layout before intervention



b. Store layout after intervention



Product: Five shelf planogram

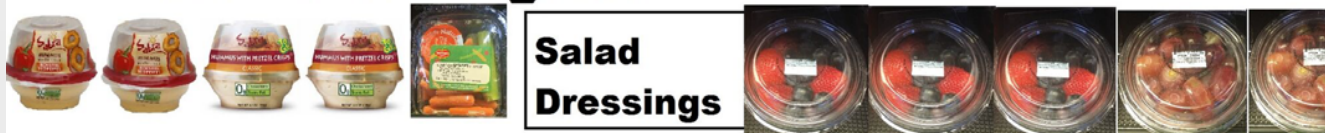




Bottom Shelf Diagram



Second Shelf Diagram

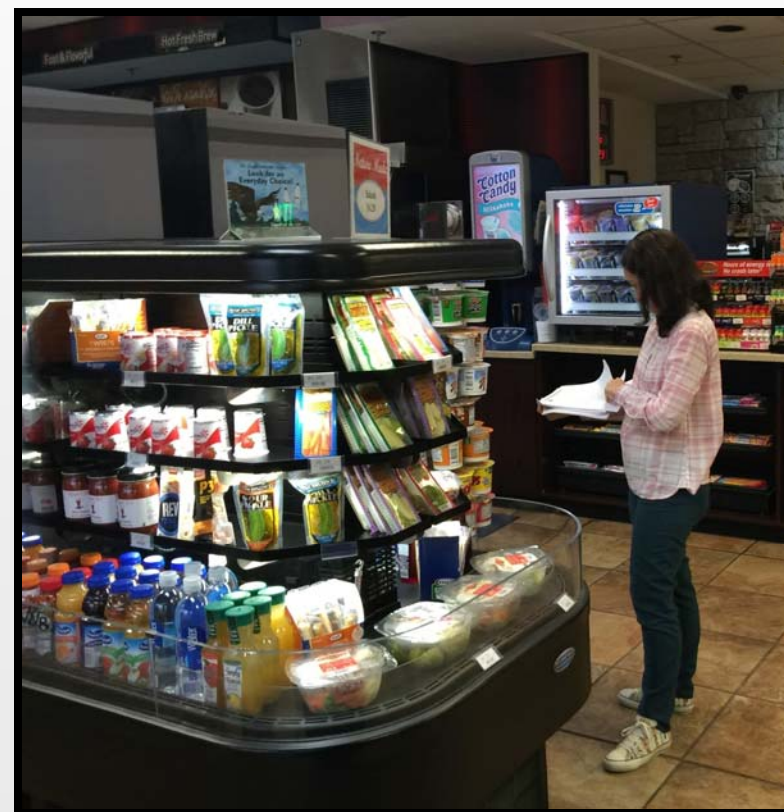


Fresh combo channel strips Fresh combo channel strips Fresh combo channel strips



Pilot of specific strategies:

- Foods sold out mid week each week for 4 week pilot period
- Selected items saw 71% increase in sales
- Allowed us to establish pricing

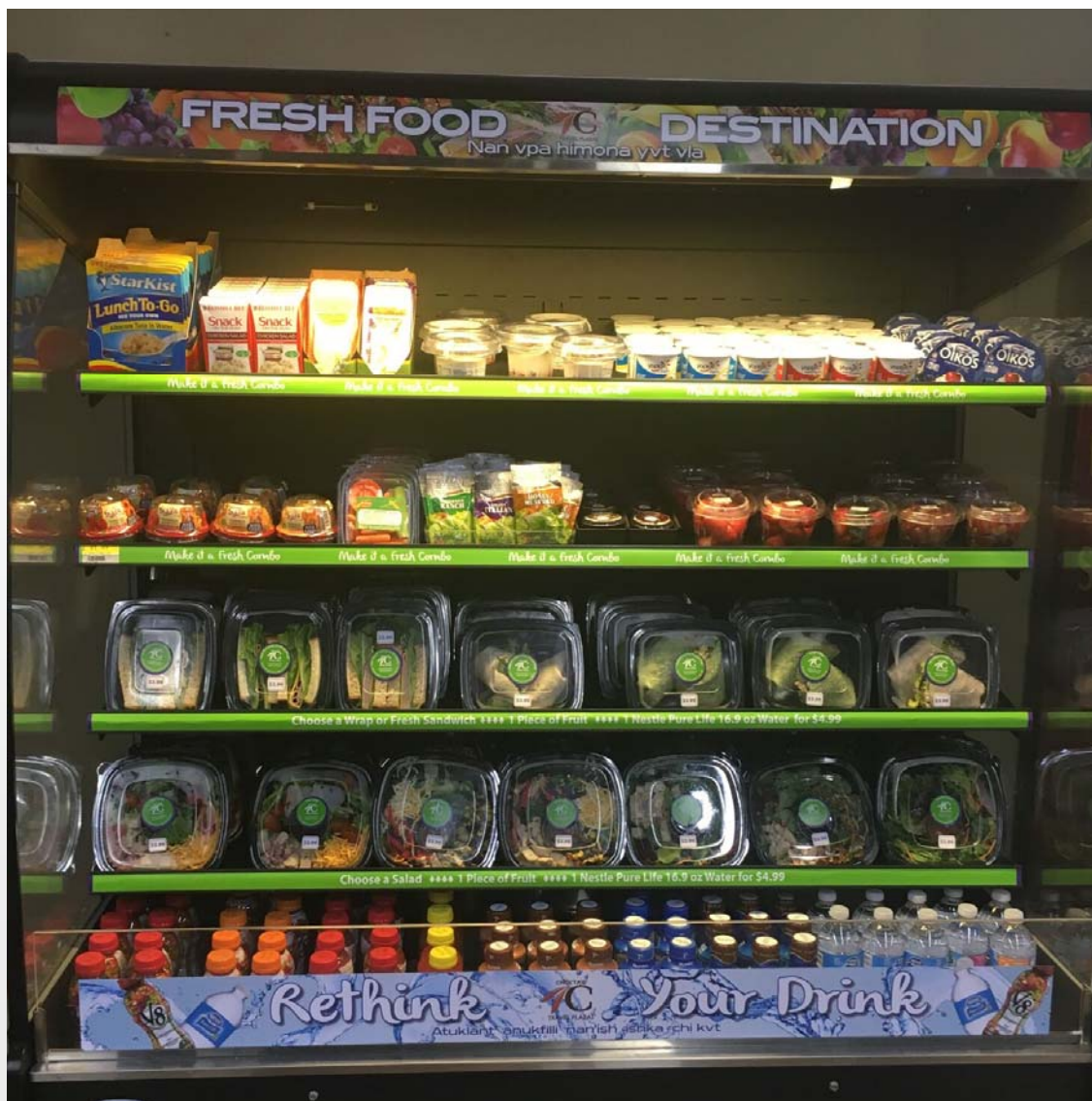


- Interventions ended April and May 2017 (9mos and 12mos)
- Total of n=1640 individuals surveyed at baseline, Chickasaw recontacted 72%, Choctaw recontacted 88%
- Assessing eating behaviors, self-efficacy, perceived nutrition environment, sociodemographics (exposure to intervention)
- Weekly process evaluations assessed intervention fidelity
- Full access to weekly sales receipts for all intervention foods (and non intervention foods)
- Study findings will be incorporated into larger tribal health impact assessments, currently underway as part of this process, to inform scale-up and implementation as tribal policy













Lessons Learned

- Partnership started approx. 2 yrs prior to receiving the grant
- Work with diverse leadership, even if key groups are not participating regularly, you are always giving updates, always sharing information back
- Inform tribal leadership with information they need (e.g. cost of intervention, projected health impact) in order to scale up should the intervention prove successful
- Extremely difficult to conduct multilevel, multicomponent interventions (e.g. people have no control, fear losing jobs)
- Studies often take extensive planning period, pushing back recruitment, but in the end increases recruitment efficacy
- Beware of tribal staff overload
- “More is more” when it comes to program officers