Tribal Health and Resilience in Vulnerable Environments
“THRIVE” Study

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Choctaw Nation of Oklahoma
Chickasaw Nation

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THRAVE 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

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 Strategies

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<thead>
<tr>
<th>Strategy</th>
<th>Implementation</th>
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<tr>
<td><strong>Product</strong></td>
<td>• Increased availability, variety, and convenience (i.e. at least 10 new snack choices and 5 new meal choices)</td>
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<td>• Packaging of vegetable and fruit “quick packs”</td>
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<td>• <strong>Choctaw Nation expanded kitchen to prepare and serve these items in house</strong></td>
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<td><strong>Placement</strong></td>
<td>• Large open air coolers were purchased and placed at the front entrances of stores</td>
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<td>• Fried food hot boxes removed to behind registers</td>
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<td>• Endcap spaces “rented” to stock with healthy foods</td>
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<td><strong>Promotion</strong></td>
<td>• Foods, shelves and coolers labeled;</td>
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<td>• Promotional signage (e.g. “fresh food destination,” “good and good for you,” etc.) placed above coolers</td>
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<td><strong>Pricing</strong></td>
<td>• Combination meal, snack, and bottled water at discount prices</td>
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<td>• All meals/snack priced at or below competing foods</td>
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1Guided by NEMS criteria, ≤500 calories; 30% or fewer calories from fat; “whole foods” guidelines that promote unprocessed foods, local, tribally sourced when possible
Product: Five shelf planogram

Fruit cups in 100% juice / Fruit Parfaits / Apple Slices / Dole Go-cups / Carrot Sticks w/ Dip / Variety of Sargento Cheese Sticks

Greek Yogurt / Whole Oranges / Whole Apples / Variety Pack of Yoplait Light / Fruit Yogurt / Variety Pack of Yoplait Light / Fruit Yogurt

It's More Than A Sandwich. It's Deli Express!

Italian Sub / Ham & Cheese Sub / Italian Focaccia / Chicken Croissant / Hickory Smoked Croissant / Mega Ham / Mega Turkey / Artisan Turkey / Artisan Ham

Taylor Fiesta Salad / Country Chef Salad / Cobb Salad / Spinach Harvest Salad / Chicken Caesar Salad
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