



# Evaluating Outcomes of Food Service Guidelines

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 **MATERNAL  
CHILD**  
Health



 **HEALTHY  
FOOD**  
Systems



 **HEALTH**  
Research



 **COMMUNITY**  
Programs

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## Community Health and Research

We seek to identify and understand health needs through research and programs and work to create an environment where every person has access to their best health.

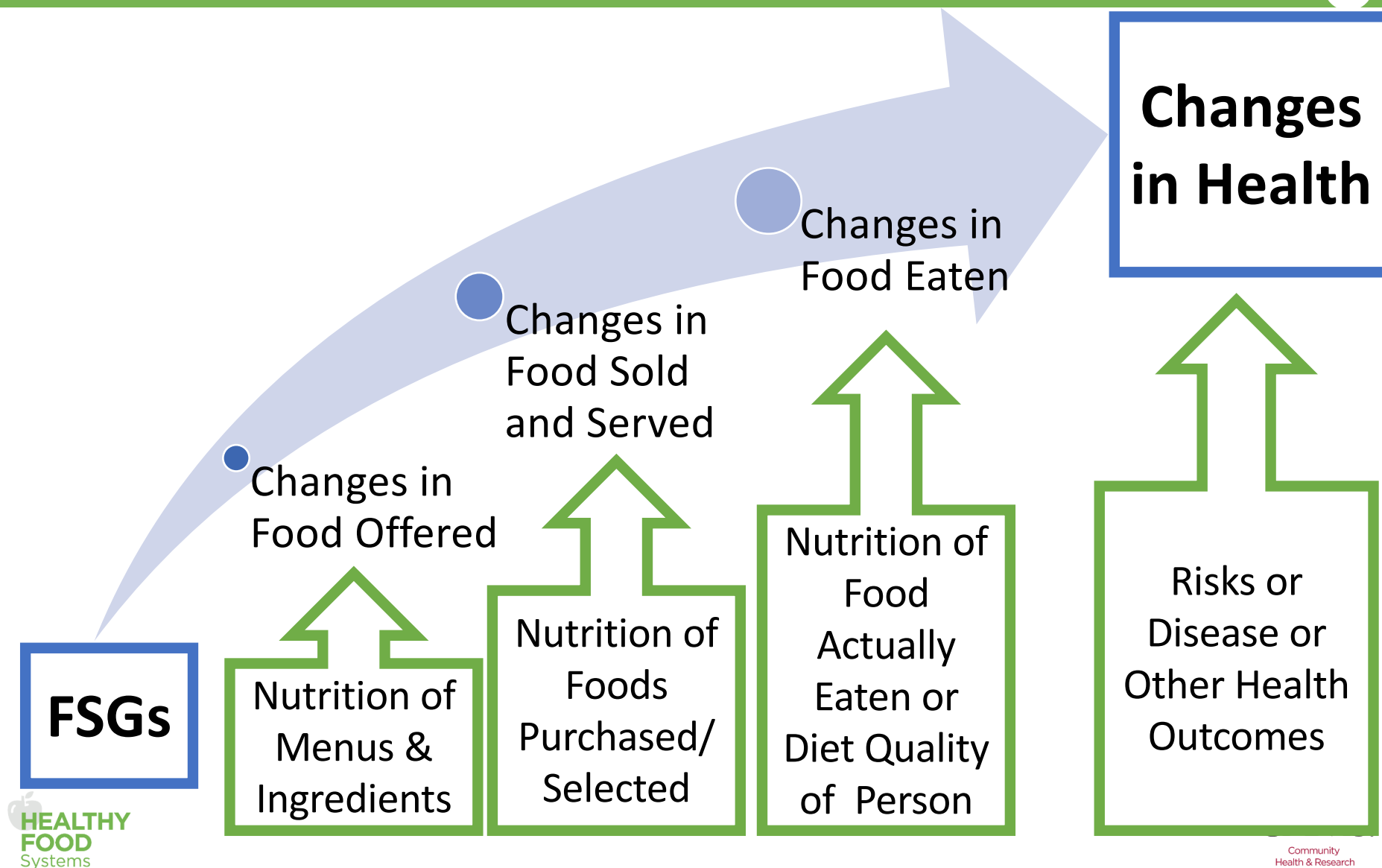
# Food Service Guidelines



- FSG Evaluation/Research Funders:
  - CDC, NIH, USDA
- Places:
  - Schools
  - ECEs
  - Food Banks & Food Pantries
  - Faith-based Organizations
  - Community Meal Programs (e.g., soup kitchens)
  - State Parks
  - Worksites/Vending



# FSG Outcomes We Track



# Changes in Food Offered



- **Place:** School district
- **Guideline:** Sodium content of entrées offered in school district should be  **$\leq 480$  mg** of sodium per entrée, based on USDA's Smart Snacks in Schools.
- **Indicator:** Mean sodium content of entrées offered on the menu
- **Finding:**
  - Baseline: **673.9 mg** per entrée offered (24.3% entrées  $\leq 480$  mg)
  - Year One Follow-up: **625.5 mg** per entrée offered (32.8% entrées  $\leq 480$  mg)

# Changes in Food Offered



- **Other Example:**
  - Vending audit nutrient analysis (state parks)
  - Menu nutrient analysis (community meals; state parks)
  - Shelf audit (food pantries)
  - Procurement records (food banks)

# Changes in Food Purchased/Served



- **Place:** School district
- **Guideline:** Comprehensive approach to reducing sodium in each meal component, based on USDA's Smart Snacks in Schools
- **Indicator:** Sodium served per nutrient analysis of ten days of school lunch served across 30 schools
- **Finding...**

# Changes in Food Purchased/Served



- At baseline, in lunches at 30 schools over 10 days:
  - **1,793,499 mg** of sodium served
    - Equivalent to the weight of average male American Fuzzy Lop rabbit




- Highest sodium entrée served: **2336 mg**
- Highest sodium side dish served: **1127 mg**



# Changes in Food Purchased/Served



- At follow-up, in lunches at 30 schools over 10 days:
  - **1,500,759 mg** of sodium served
    - Reduced by
      - 1/6 of a American Fuzzy Lop rabbit 
      - **123 mg** per diner
  - Highest sodium entrée served: **1634 mg**
    - (decrease of 702 mg)
  - Highest sodium side dish served: **964 mg**
    - (decrease of 163 mg)

# Changes in Food Purchased/Served



- **Other Examples:**
  - Bag audits (food pantries)

Long CR, Rowland B, McElfish PA. Intervention to improve access to fresh fruits and vegetables among Arkansas food pantry clients. *Preventing Chronic Disease*. 2019; 16:180155. doi: 10.5888/pcd16.180155.

Long CR, Rowland B, Langston K, Faitak B, Sparks K, Rowe V, McElfish PA. Reducing the intake of sodium in community settings: evaluation of year one activities in the Sodium Reduction in Communities Program, Arkansas, 2016-2017. *Preventing Chronic Disease*. 2018 December; 15:180310. doi: 10.5888/pcd15.180310.

# Changes in Food Eaten



- **Place:** Food pantries
- **Guideline:** Increase percentage of fresh fruits and vegetables and other Foods to Encourage distributed by food pantries in region
- **Indicator:** Food pantry clients' self-reported fruit and vegetable consumption
- **Finding:**
  - Baseline: Consumed 1.7 servings fruits & vegetables per client day per in past 30 days
  - Year One Follow-up: No change in consumption.
    - Distribution of fresh fruits/vegetables increased by 10x!

# Changes in Food Eaten



- **Other Examples:**
  - Plate waste analysis (ECEs)
  - “VeggieMeter” measure of skin carotenoids (ECEs, schools, food pantries)
  - 24-hour diet recalls (food pantries)
  - Willingness to try (ECEs)

# Changes in Health



- **Place:** Faith-based organization
- **Guideline:** At all church events, no sugar-sweetened beverages, limit fried foods, encourage fruits and vegetables, etc.
- **Indicator:** Church members' BMI, HbA1c, blood pressure via health screenings
- **Finding:**
  - Year-over-year analysis pending

# Changes in Food Eaten



- **Other Examples:**
  - School district level BMI (schools)



# Thank you

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