Crossing Boundaries: Development of a National Community Nutrition Education Logic Model Online Program Management & Reporting System

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Existing Work

- Medeiros LC, Butkus SN, Chipman H, Cox RH, Jones L, Little D. A Logic Model Framework for Community Nutrition Education, *Journal of Nutrition Education and Behavior*, 2005; 37:197-202.
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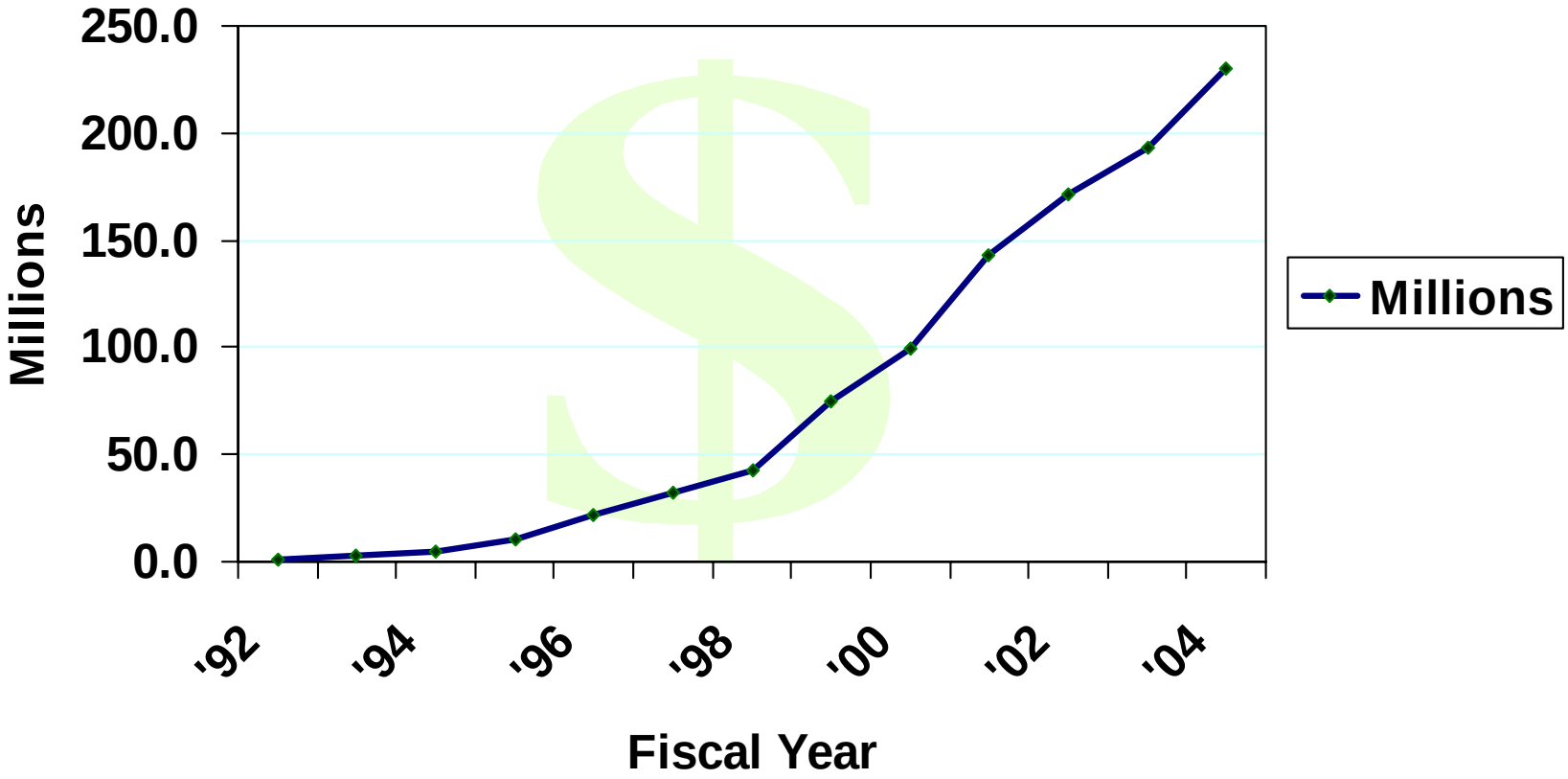
FNS USDA
Food & Nutrition Service

Approved Federal Funding for FSP Nutrition Education, FY1992 to FY 2004



Guiding Factors

- Purpose
- Expected Accomplishments
- Challenges
- Vital Elements
  - Performance-based budgeting
  - Theory-driven
  - Politically astute
  - Comprehensive, clear, consistent
  - State and National interests
  - Ultimate goal – focus on population to be served

Ultimate Goal

- **Help administrators and educators use data to inform program management and provide educational programs and social marketing strategies that increase the likelihood of people making healthy food choices consistent with national food and nutrition education policy, paying special attention to people with limited budgets**

Design

Phase 1

- **Conceptualize and nationally pilot test Community Nutrition Education (CNE) Logic Model**

Phase 2 – Focus of this presentation

- **Conduct blind review of State reports; refine the model**

Phase 3 – Focus of this presentation

- **Conduct pilot-test of revised model with FSNE and other nutrition education programs**

Phase 4

- **Refine the model and conduct second national pilot**

Phase 2: Blind Review & Refinement

Workgroup

- 8 individuals
  - Research, program, technology expertise
  - Commitment to evaluation
  - Attention to detail & flexible thinking
  - Geographic balance
  - Extension & Public Health
  - Different educational interventions used

Phase 2: Blind Review & Refinement

Task

- Conduct blind review (10-12 State reports, each)
- Make recommendations to refine the model
  - Missing, ambiguous, duplicative, necessary, nice but not necessary, unnecessary
- Provide input to contractor for online program management and reporting system

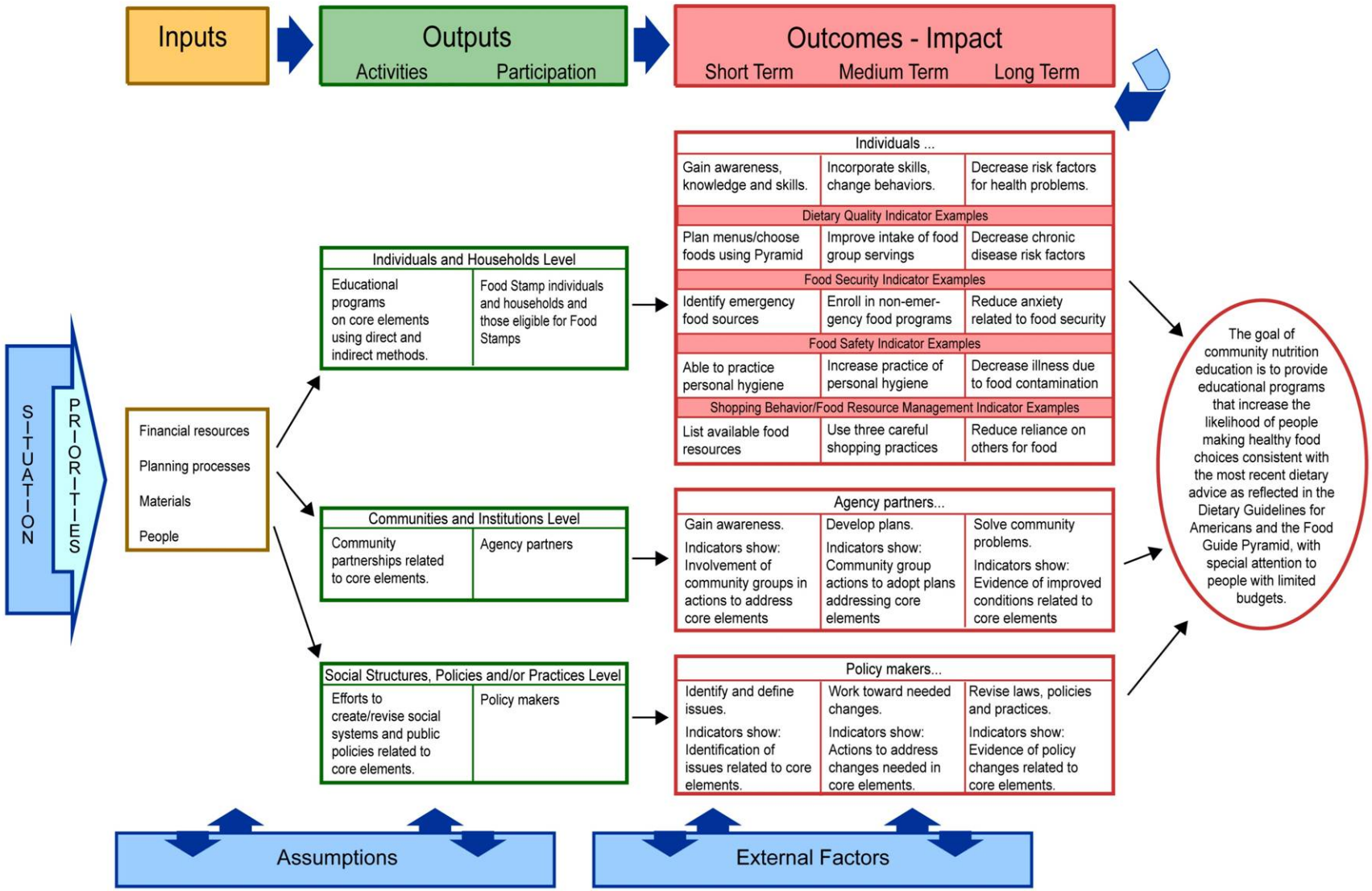
Communication

- Face-to-face meeting
- Monthly teleconferences & frequent group email

Phase 2: Recommendations & Actions

- **Training almost a greater concern than model refinement**
  - **Program planning/management tool (more than data collection for a report)**
  - **Inform colleagues: listserves, regional conference calls, national meetings**
- **Strong support for development of the model and its associated "worksheet" into an online system**
  - **Pop-up definitions and examples**
  - **Forced choices based on 2002 State data**
  - **Limited open-ended responses**

The Community Nutrition Education (CNE) Logic Model – Overview



The Community Nutrition Education (CNE) Logic Model – Detail

Inputs

Financial Resources

- FSNEP Contract (Budget Categories)
- Match funds (Public In-Kind and Private Funds)
- Non-Match (Private In-Kind)

Planning Processes

- Program Planning
- Social Marketing

Materials

- Curriculum
- Educational Media
- Campaign

People

- Expertise (funded, matched, other)
- Accountability: Elected/Appointed Officials
- Intra-Institutional Commitment: Membership: Networks, Coalitions, Consortia, etc.

Outputs

Activities	Participation
Individuals and Households Level	
Conduct education and deliver targeted messages on core elements using the following strategies: Direct Methods • Individual/One on One • Small Group • Large Group Indirect Methods • Newsletters • News Releases • Kiosks • Internet Media Campaign	**Food Stamp individuals/households and those eligible for the Food Stamp Program** Direct Methods (# and %) • Counted: Gender, Ethnicity, Adult or Youth • Estimated Indirect Methods • Counted • Estimated Media Circulation Evidence that participants represent Food Stamp households or those eligible for the Food Stamp Program
Communities and Institutions Level	
Develop/expand community partnerships to identify opportunities and eliminate barriers related to core elements using the following strategies: • Community Assessment • Community Awareness Campaigns • Community Organizing • Community Integration of Services	**Agencies/organizations addressing dietary quality concerns which target the Food Stamp population** • Number of Partnerships by Type, Sector and Level (local, regional, statewide) • Number of Inter-Organization Agreements/MOUs • Number and Description of Community-Based Efforts • Number and Description of Integrated Service Plans
Social Structures, Policies and/or Practices Level	
Create/revise social systems and public policies related to core elements using the following strategies: • Expert review/ comment on federal, state, and/or local public policies • Public Forums • Impact Seminars • Efforts to inform elected officials, food industry leaders (processors and retailers), farmers, educators, and other influential leaders	**Systems and policies related to core elements having an impact on the Food Stamp population** • Number and description of multi-sector efforts that include universities, government agencies, private sector, non-profit agencies and governing/licensing boards • Description of systems and policy change efforts

Outcomes and Indicators

Short Term	Medium Term	Long Term
Individuals and Households Level		
Dietary Quality, Physical Activity Core Element		
Outcomes		
Individuals gain awareness, knowledge and skills related to: • Improved attitudes about healthy eating • Increased knowledge of healthy food choices • Improved skill in selection of healthy foods • Improved skill in preparation of healthy foods • Increased awareness/knowledge of benefits of physical activity (burn calories & control weight, increased stamina, cardiovascular health, reduce risk of cancer, diabetes, improved personal appearance, etc.) • Increased awareness/knowledge physical activity recommendations for health	***Individuals incorporate skills; change behaviors related to:*** • Increased adoption of healthy food practices • On-going use of healthy weight management practices • Adoption of recommended diet-related practices for disease prevention and management • Participation in regular physical activity • Family/individual participation in physically active community events.	***Individuals experience:*** • Decreased risk factors for nutrition-related health problems & chronic diseases that are affected by diet and physical activity • Decreased incidence of complications of chronic diseases that are affected by diet and physical activity
Indicators		
__% of (x) Individuals who demonstrate ability to: • Plan menus and choose foods around Food Guide Pyramid (FGP) and Dietary Guidelines (DG) **[DQ1]** • Adjust recipes and/or menus to achieve certain goals (reduced calories, fat, sodium, etc., or increased nutrients & fiber) **[DQ2]** • Select/use preparation and storage techniques to conserve nutrients or reduce fat, salt, or to improve taste**[DQ3]** • Classify foods based on original source (plant or animal) **[DQ4]** • Write a personal plan to adjust physical activity for health, fitness, weight control, etc. **[DQ5]** ***__% of (x) Individuals who indicate an intent to adopt one or more healthy food/nutrition practices*** **[DQ6]** ***__% of (x) Individuals who indicate an intent to begin or increase physical activity*** **[DQ7]**	***__% of (x) Individuals demonstrate adoption of healthy eating practices by:*** Improved life style practices based on the food Guide Pyramid & Dietary Guidelines, such as • Improved intake of food group servings **[DQ8]** • Improve intake of selected nutrients and **[DQ9]** • Improve behavior change related to decreased salt, fat, sugar and calories, or increased servings/variety of vegetables, fruits, whole grains, and low-fat milk **[DQ10]** •Increased frequency of eating breakfast **[DQ11]** ***__% of (x) Individuals demonstrate adoption of increased time spent in physical activity practices by:*** •Implementation of a personal plan for regular physical activity, such as increased time/frequency engaged in daily activity; beginning a specific activity such as walking, hiking, bicycling **[DQ12]** • Increased participation of individual/family in games and play that involve physical activity **[DQ13]** • Reduction in time spent in sedentary activities (such as watching TV and playing video games) **[DQ14]**	***Individuals show:*** • Decreased # of chronic disease risk factors **[DQ15]** • Decreased # of chronic disease complications **[DQ16]** • # (%) of food stamp recipients who achieved/maintained healthy weight or lost as much as 5% of body weight (if needed) **[DQ17]** Note: Studies show that a loss of only 5% of body weight in obese people can bring about beneficial changes in chronic disease risks and/or complications.

Concerns & Cautions

- Evaluation should be conducted across the model; specific methods and tools (measures) are not noted here
- Robustness of logic models needs to be tested – the theory, the connecting lines
- Content of the boxes are dynamic; they change according to new information, policy direction, program needs

Why FSNE is a Good Choice for Testing a Community-Based Program Management & Reporting System

- Multiple funding streams
- Numerous partners and stakeholders with a vested interest
- Balancing local flexibility and national direction

Phase 3: Pilot Test Online Prototype

Format and Content

- Forced choices, drop down menus, fill in the blank
- Open-ended response
- Consistent with other data gathering forms

Pilot Package

- Outline with summary instructions
- List of definitions, examples and clarification (in addition to pop-up screens)
- Hard copy worksheet option

Phase 3: Pilot Test Online Prototype

Convenience sample - representing 14 States

- **8 Workgroup members**
  - **Involved in development**
- **3 other FSNE coordinators**
  - **Not involved in development; strong commitment to evaluation**
- **3 Family & Consumer Science Leaders**
  - **Other types of nutrition education; strong commitment to evaluation**

Phase 3: Pilot Test Online Prototype

Task

- Use only information readily available
- Complete and submit the online form for FSNE or another nutrition education program of the past year (FY 2004)
- Provide comment on what liked/disliked, what was difficult to complete/understand, what was most/least helpful from a State perspective, suggestions on how to improve

Phase 3: Pilot Test Online Prototype

General Results

- 2004 data easier to analyze than 2002 data
- No indication that any parts were difficult to complete, except for race/ethnicity and individuals/contacts
- Faster completion time
- All liked move toward online system with combination of forced choices and open-ended response

Phase 3: Pilot Test Online Prototype

General Results, continued

- **FSNE coordinators who were not part of working group had the greatest difficulty responding**
- **FCS Leaders did not seem to have difficulty using for other programs; data limited, however**
- **Still need to check for suspect data**
- **Training is needed: objectives; qualitative content; fiscal information; use in program planning, management, reporting, accountability**

Phase 3: Pilot Test Online Prototype

Specific Results

- **Higher response to outer levels of socio-ecological model than for 2002 data**
- **Need to check for questions asked, but no place to report**
- **Software glitches: truncated numbers & verbiage; multiple responses that defaulted to zero**

Testing the system will be essential

Phase 4: Second National Pilot

- Beta test the revised online system (new technologic environment)
- Beginning of new calendar year
- Timeline supports States in planning process for FY 2007 (consistent with CNE Logic Model - feedback loop between planning and reporting)

Challenges

- **Initial timeline overambitious**
  - **Contractors**
  - **Other agencies' work**
  - **FSNE coordinators (respondents) workload**
    - **ACTION - more deliberate development**
- **Limited funding; new types of expertise required**
  - **Technological and training priorities**
  - **New opportunities for collaborative work**
    - **ACTION - commitment & creativity by all**

Future Needs & Directions

- Training plan
- Definition of terms for consistency with multiple partners
- State reports: content and format
- Research: testing the model
- Research: testing beyond FSNE
- Coordinating efforts: Federal & State

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