

A Procedural Model for Designing Nutrition Education



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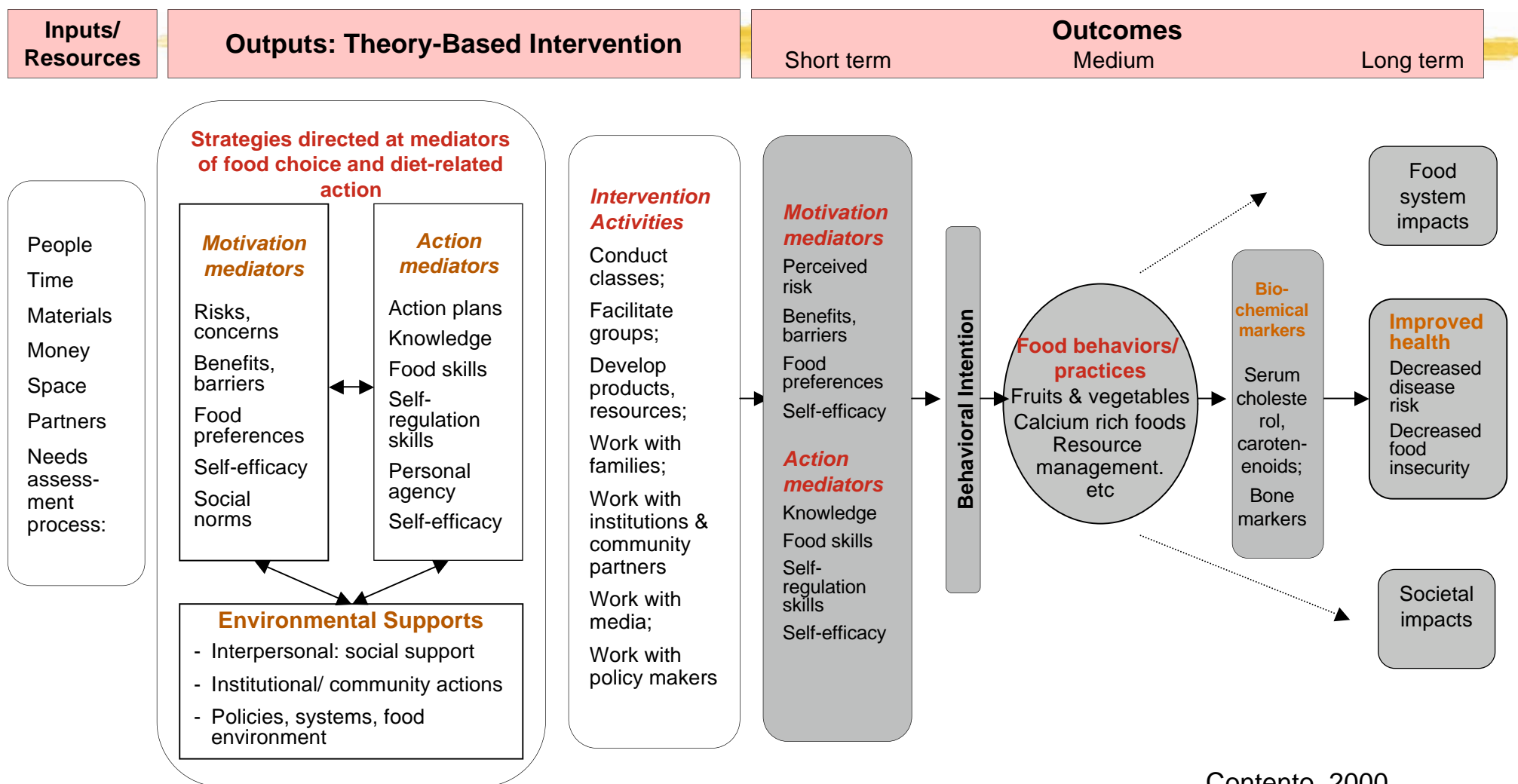
Teachers College Columbia University

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A Procedural Model For Designing Theory-Based Nutrition Education

Inputs		Outputs			Outcomes
Step 1 ↔	Step 2 ↔	Step 3 ↔	Step 4 ↔	Step 5 ↔	Step 6
Analyze needs and behaviors/practices	Identify mediators of behaviors/practices	Select theory, philosophy and components	State educational objectives for mediators	Design educational strategies for mediators	Design evaluation

Conceptual Framework for Evaluating Theory-Based Nutrition Education



Linking outcomes, indicators and measures

Outcomes	Indicators of achievement of outcomes	Measures/ instruments for indicators
Health/ Other		
Behaviors		
Mediators		

Linking outcomes, indicators, and measures

Health outcomes	Indicators of achievement of outcomes	Measures/ instruments for indicators
Heart disease risk	Serum cholesterol	Finger prick or via blood draw and lab analysis
Obesity	Reduced prevalence of BMI>30	Heights & weights

Linking outcomes, indicators, and measures

Behavioral outcomes	Indicators of achievement of outcomes	Measures/ instruments for indicators
Increased intake of fruits & vegetables	Increased intake of specific foods	Food recalls Food records FFQ Checklists
Increased use of low-fat behaviors	Improved scores on fat-reducing behaviors	Behavioral questionnaire

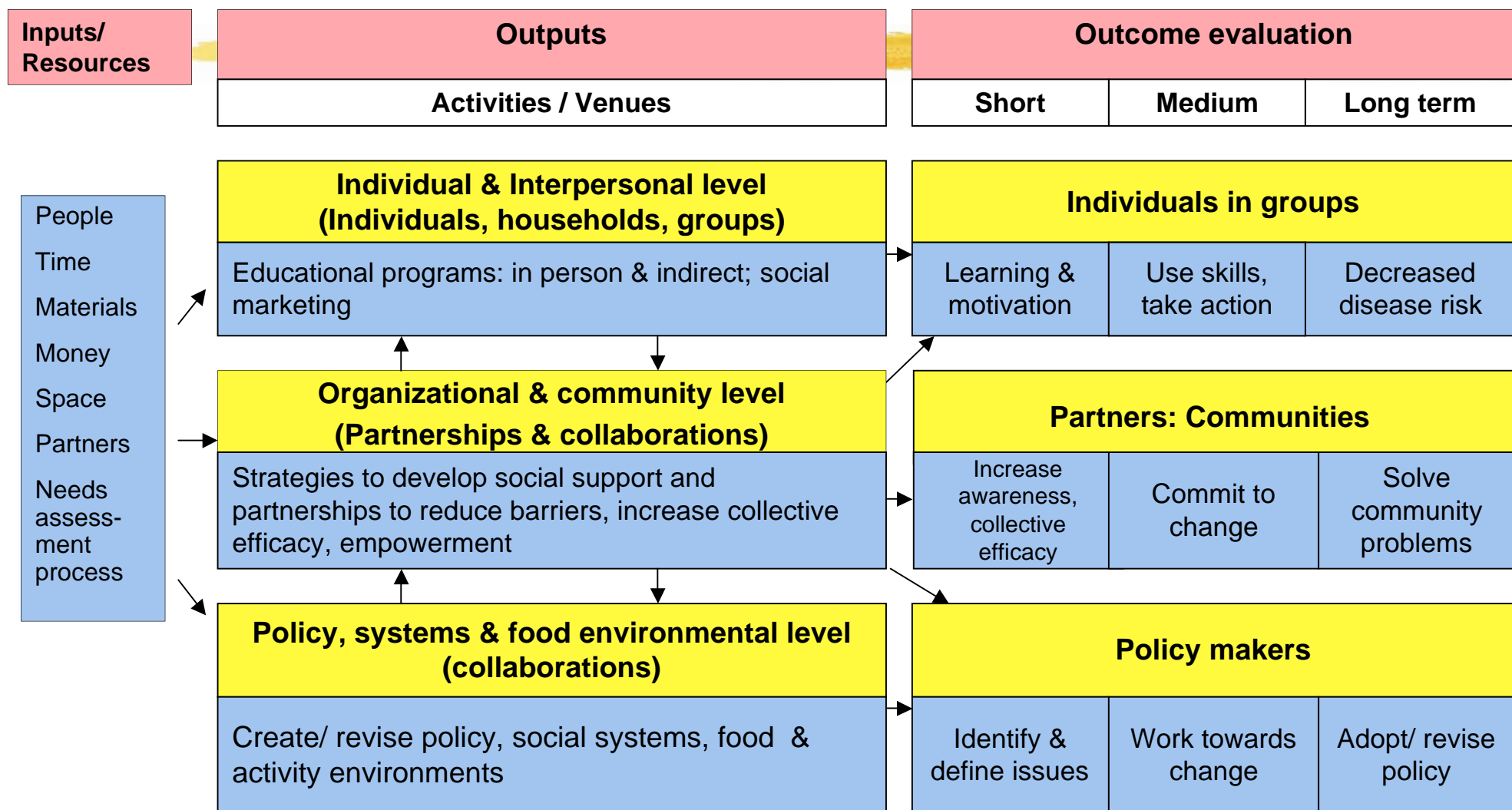
Linking mediators, objectives, & measures

Potential mediators	Objectives in relation to mediator	Indicators of achievement of objectives	Measures/instruments for indicators
Outcome expectations (benefits)	Demonstrate understanding of benefits of eating F&V	Describe reasons why F&V are important for health; state personal benefits	Scale with responses of 1 to 5 for strongly disagree to strongly agree on benefits

Linking mediators, objectives, & outcomes

Potential mediators	Objectives in relation to mediators	Indicators of achievement of objectives	Measures/ instruments for indicators
Self-efficacy	Demonstrate increased SE in eating a variety of F&V each day	State increased SE for a variety of different F&V	Scale with responses of 1 to 5 for disagree to agree for 15 different F&V

Evaluation Model Addressing Multiple Levels of Intervention



Design appropriate evaluation plan

Evaluation designs:

- True experiment or randomized control trial
- Quasi-experimental designs
- Non-experimental designs
- Interrupted time series designs
- Surveillance or monitoring studies
- Qualitative studies

Select appropriate data collection methods

Select the methods to collect data :

- When
- Where
- How
- With whom

Enhancing outcomes from program implementation

- Greater fidelity to theory in nutrition education
 - so we can interpret outcomes
 - provide feedback on theory
- Improve measures/ tools for outcomes
- Improve measures/ tools for mediators
- Conduct analyses linking mediators & outcomes

Enhancing outcomes from program implementation

- Use evidence relevant to specific context, culturally relevant
- Increase evaluation capacity
- Build on potential synergies by partnering to design & evaluate
- Advocate for support for surveillance, monitoring, and evaluation