Developing Consensus-Based Models of Readiness and Capacity for Implementing Farmers' Market Interventions

INNOVATIONS IN COLLABORATIVE MODELING

East Lansing, MI
June 14, 2016

Healthy Neighborhoods
Prevention Research Center
for Healthy Neighborhoods
at Case Western Reserve University

CASE WESTERN RESERVE UNIVERSITY
EST. 1826

Acronyms

- BCOP: Building Capacity for Obesity Prevention

- SNAP-Ed: Supplemental Nutrition Assistance Education Program

- CHC: Creating Healthy Communities Program

- PSE: Policy, System, Environmental Interventions

- EBT: Electronic Benefit Transfer Systems

Building Capacity for Obesity Prevention (BCOP) is...

- **A collaborative study between researchers and practitioners**

Contributors

◦ ***Case Western Reserve University/Prevention Research Center for Healthy Neighborhoods***

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- Ashley Davis, MPH, RD, LD (PI ODH)

Building Capacity for Obesity Prevention (BCOP) is...

- A collaborative study between researchers and practitioners

- **To identify key aspects of community readiness and practitioner capacity for obesity prevention**

- **To develop web-based diagnostic tools to be used by public health and community nutrition practitioners in their planning of PSE interventions**
  - Healthy Hunger Free Kids Act
  - U.S. Department of Agriculture
  - Centers for Disease Control and Prevention

Farmers' Market
- Getting EBT machines to markets
- Advertising about SNAP/EBT accessibility at markets
- Incentive programs that double the amount of benefit dollars shoppers can use at markets

Healthy Eating in Childcare/Preschool
- Creating a supportive space for nursing/breastfeeding
- Being supportive of breast milk storage and feeding
- Limiting sugar-sweetened beverages and fried foods
- Starting a garden
- Including parents in childcare menu planning

Healthy Food Retail
- Increasing healthier food options at corner or small stores
- Advertising prompts to promote healthy food choices
- Increasing healthier foods in vending machines
- Promoting healthy check-out aisles (i.e., no candy in aisle)

Farm to School
- School gardens
- Salad bar activities
- Locally grown food purchased for cafeteria

Examples of 4 PSE Intervention Approaches
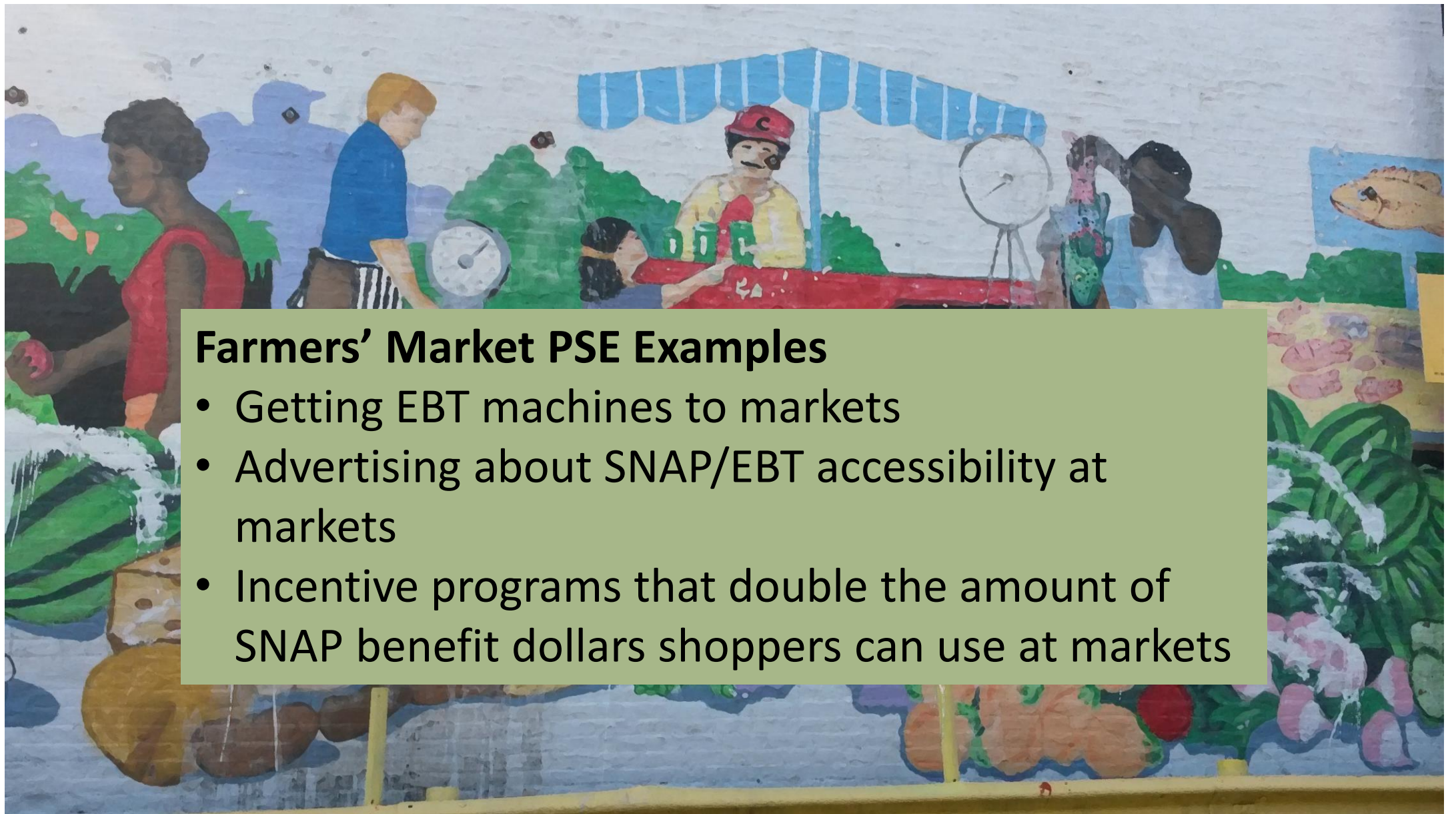
Farmers' Market PSE Examples
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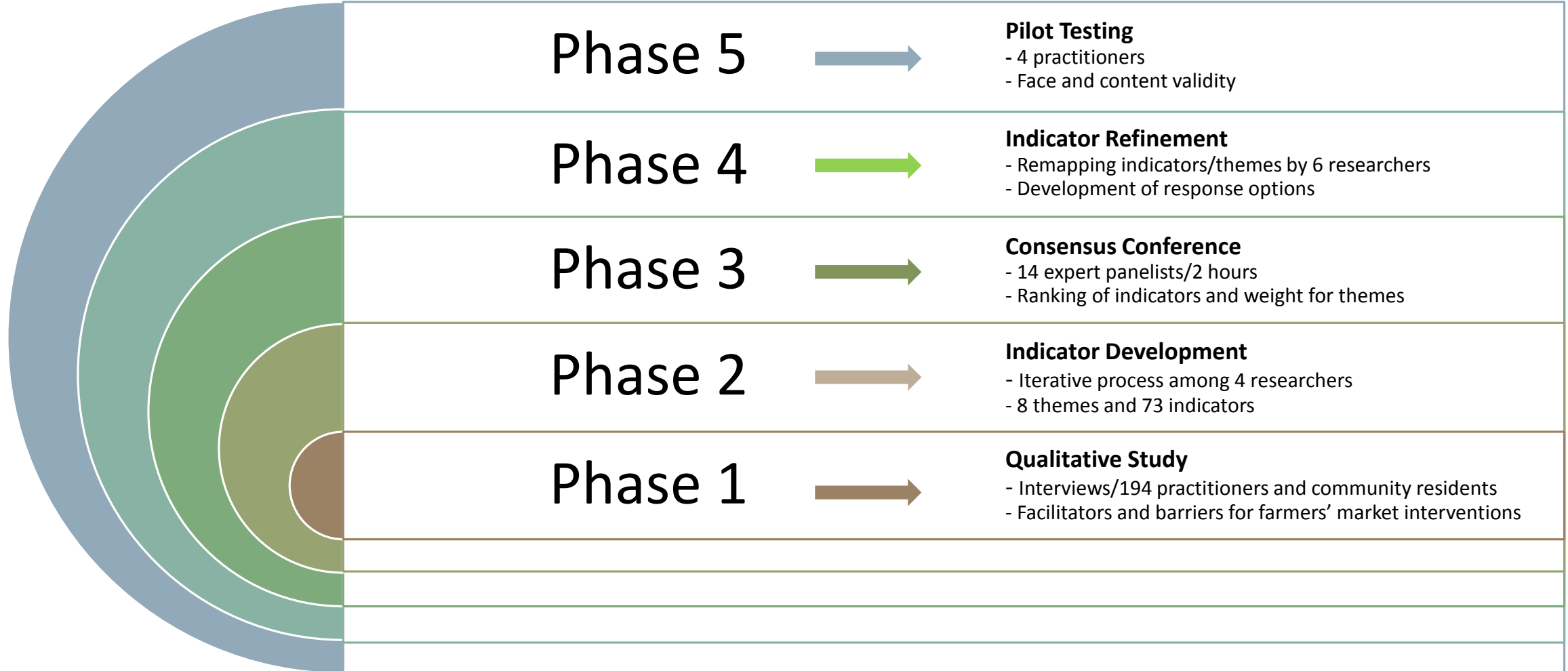
- **A multiphase consensus-based modeling approach**
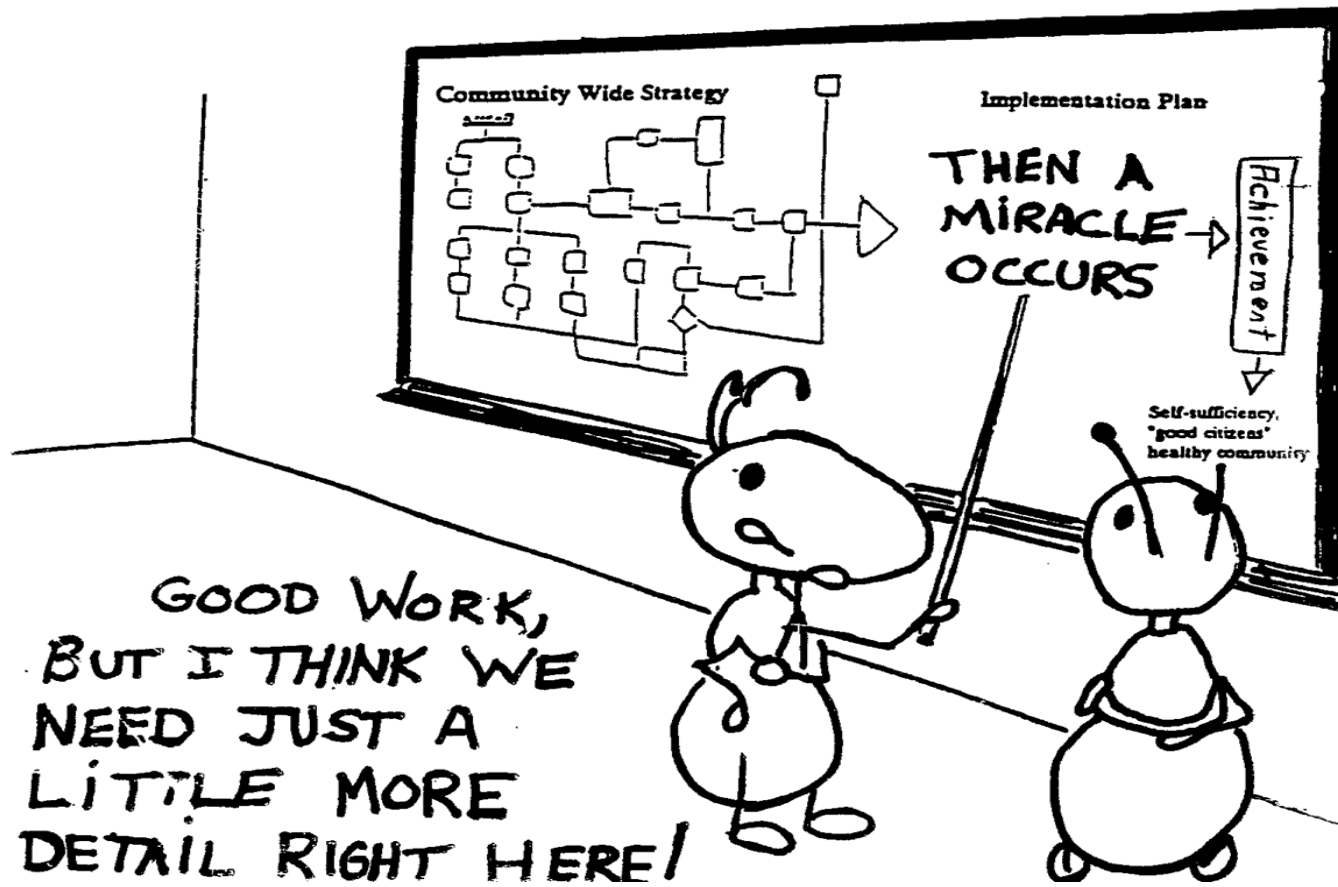
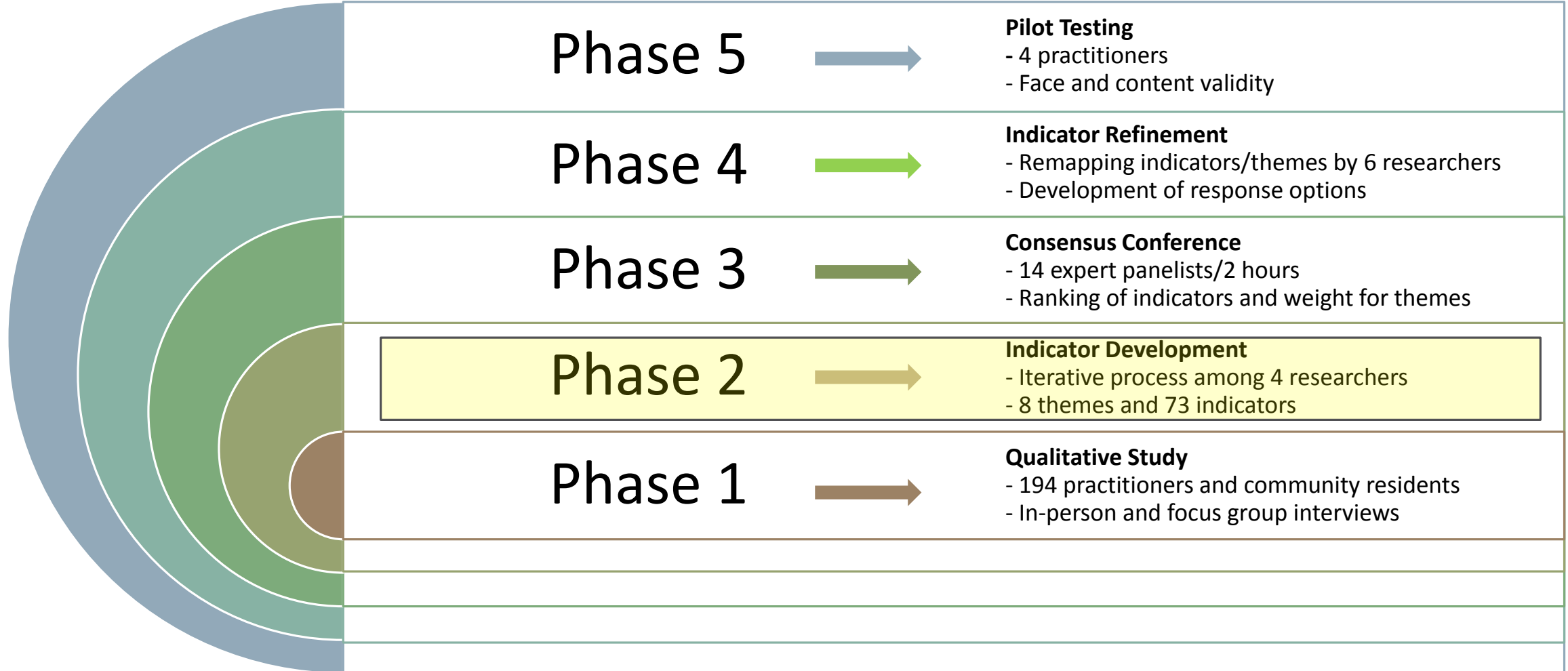# Consensus-based Modeling Approach

- Tailor implementation strategies based on the realities of community and capacity

- Include two key actors of intervention strategies (i.e., community residents and practitioners)

- Use a multi-phase iterative process of action and reflection

Multiphase Consensus-based Modeling

Phase 5 → **Pilot Testing**
- 4 practitioners
- Face and content validity

Phase 4 → **Indicator Refinement**
- Remapping indicators/themes by 6 researchers
- Development of response options

Phase 3 → **Consensus Conference**
- 14 expert panelists/2 hours
- Ranking of indicators and weight for themes

Phase 2 → **Indicator Development**
- Iterative process among 4 researchers
- 8 themes and 73 indicators

Phase 1 → **Qualitative Study**
- Interviews/194 practitioners and community residents
- Facilitators and barriers for farmers' market interventions

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Phase 2: Initial Theme & Indicator Development

Theme	Definition	# Indicators
Organizational Capacity	Organizational capacity includes having the budgets, human capital, resources and work plans to implement FM PSE projects.	11
Practitioner Awareness	This theme includes practitioner exposure to EBT implementation, healthy food incentive programs at FM, and utilizing FM to educate SNAP-Ed recipients.	7
Practitioner Attitudes and Beliefs	This theme includes practitioner perceptions of use of FM among people receiving SNAP and other low-income populations, as well as perceptions of FM staff.	9
Networks & Relationships	This theme refers to the social capital, or the networks of relationships from which practitioners and community members can draw to help implement and support FM PSE projects.	7
Community Perceptions	This theme enc... awareness, adv... PSE projects.	
Logistical Factors	This theme incl... that can facilita...	
Sustainability	This theme refe... projects.	
Community Food Norms and Skills	This theme includes community skills needed to take advantage of farmers' market PSE projects, perceptions of food choice and quality available at farmers' markets, and perceptions of the health benefits of foods at farmers' markets.	11

Are there programs in your service area to support increasing the number of farmers/vendors able to sell products at farmers' markets?

Are there incentive programs in your service area that target vulnerable populations (i.e., the elderly, people with disabilities, seniors, and people with diabetes)?

Are there enough farmers/vendors to support current and/or new farmers' markets in your service area?

Have you or other partners in your community secured funding sources for healthy food incentive programs at farmers' markets?

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Phase 3: Consensus Conference, Part 1
Sorting & Ranking of Indicators

Sort   **Rank top 3**

INDICATOR SPACE

1st indicator
2nd indicator
3rd indicator

1ST indicator => most important
.
2nd indicator => 2nd most important
.
3rd Indicator => 3rd most important

1st indicator
2nd indicator
3rd indicator
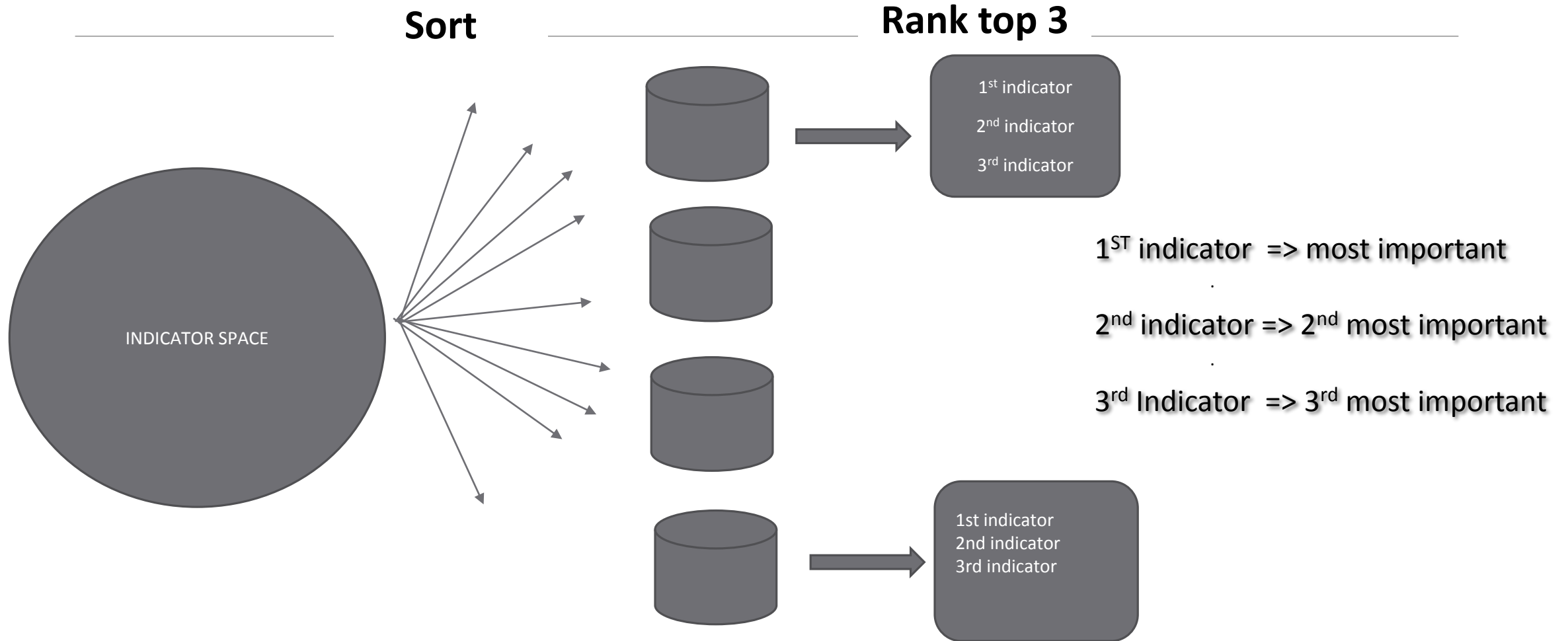
Sorting and Ranking – Sample worksheet

Indicator	Team1	Team2	Team3	Team4	Team5	x1	x2	x3	x4	x5	TOTAL
70	1	1		2		3	3	0	2	0	8
9			2	3	2	0	0	2	1	2	5
4			1			0	0	3	0	0	3
11					1	0	0	0	0	3	3
57		3	3		3	0	1	1	0	1	3
71				1		0	0	0	3	0	3
36	2					2	0	0	0	0	2
40		2				0	2	0	0	0	2
65	3					1	0	0	0	0	1
1						0	0	0	0	0	0
2						0	0	0	0	0	0
3						0	0	0	0	0	0
5						0	0	0	0	0	0

Sustainability –
Consensus-based Rankings of factors that increase the supply and demand of farmers' market PSE projects.

Sorting and Ranking

 # Indicators before Consensus Conference

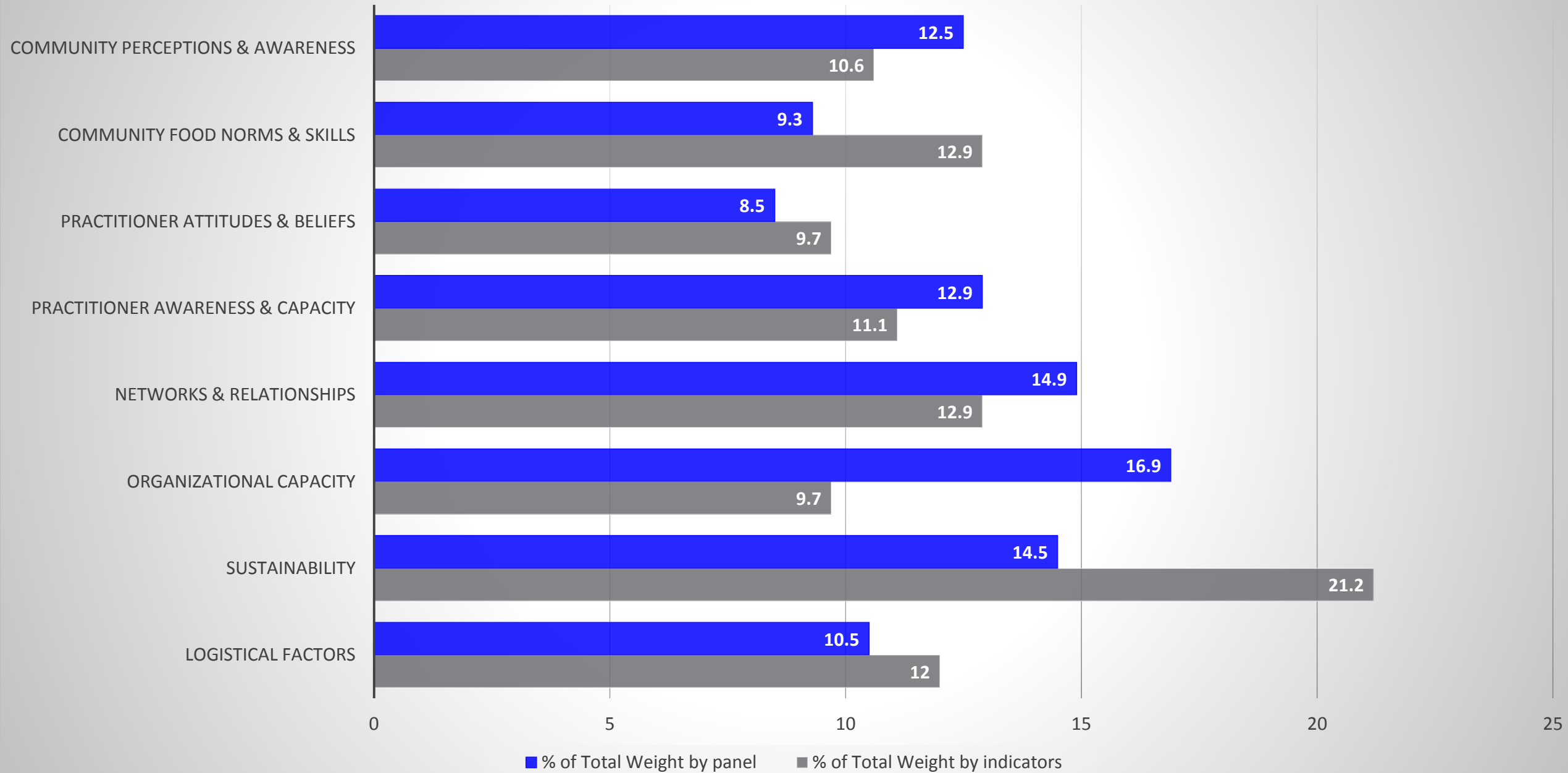73

→

 # Indicators after Consensus Conference

44

40 %

Phase 3: Consensus Conference, Part 2
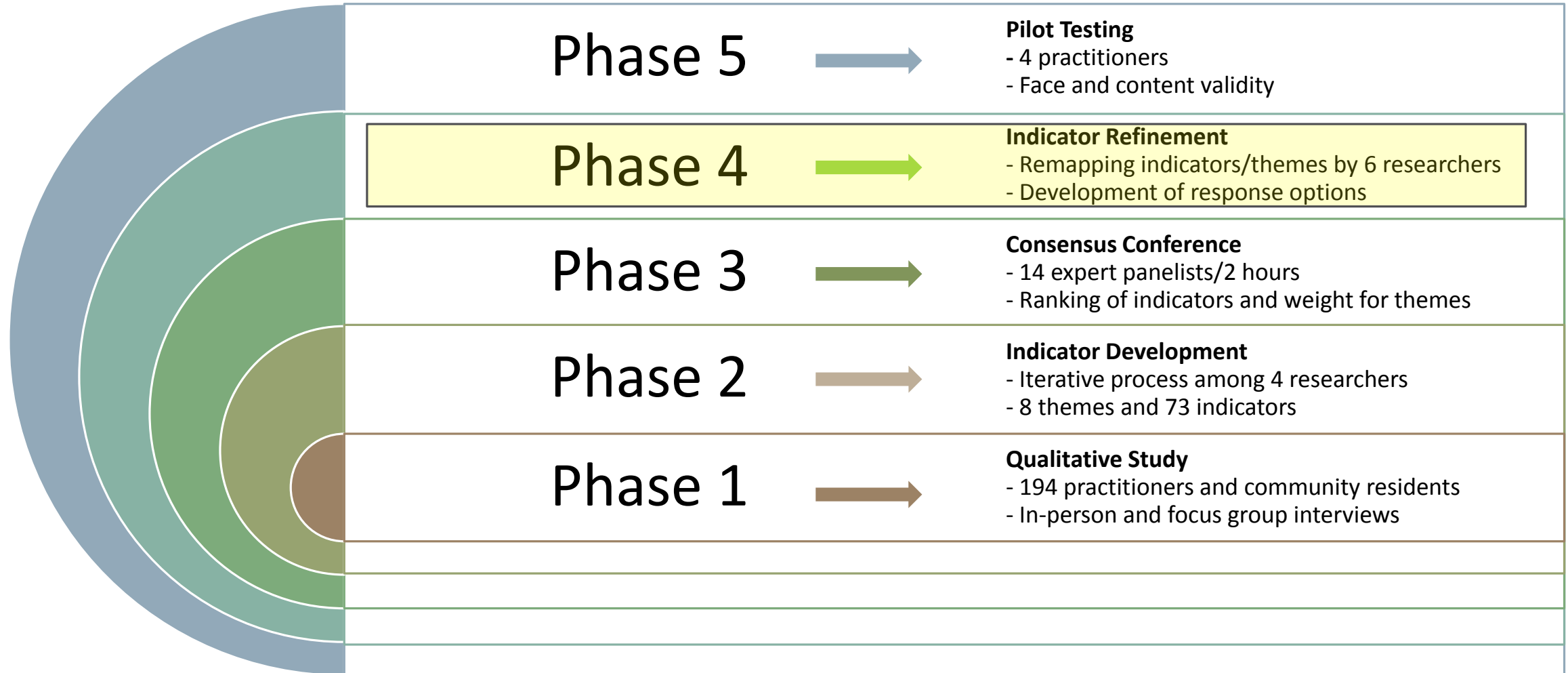Weighting Themes

Multiphase Consensus-based Modeling

Phase 5 →
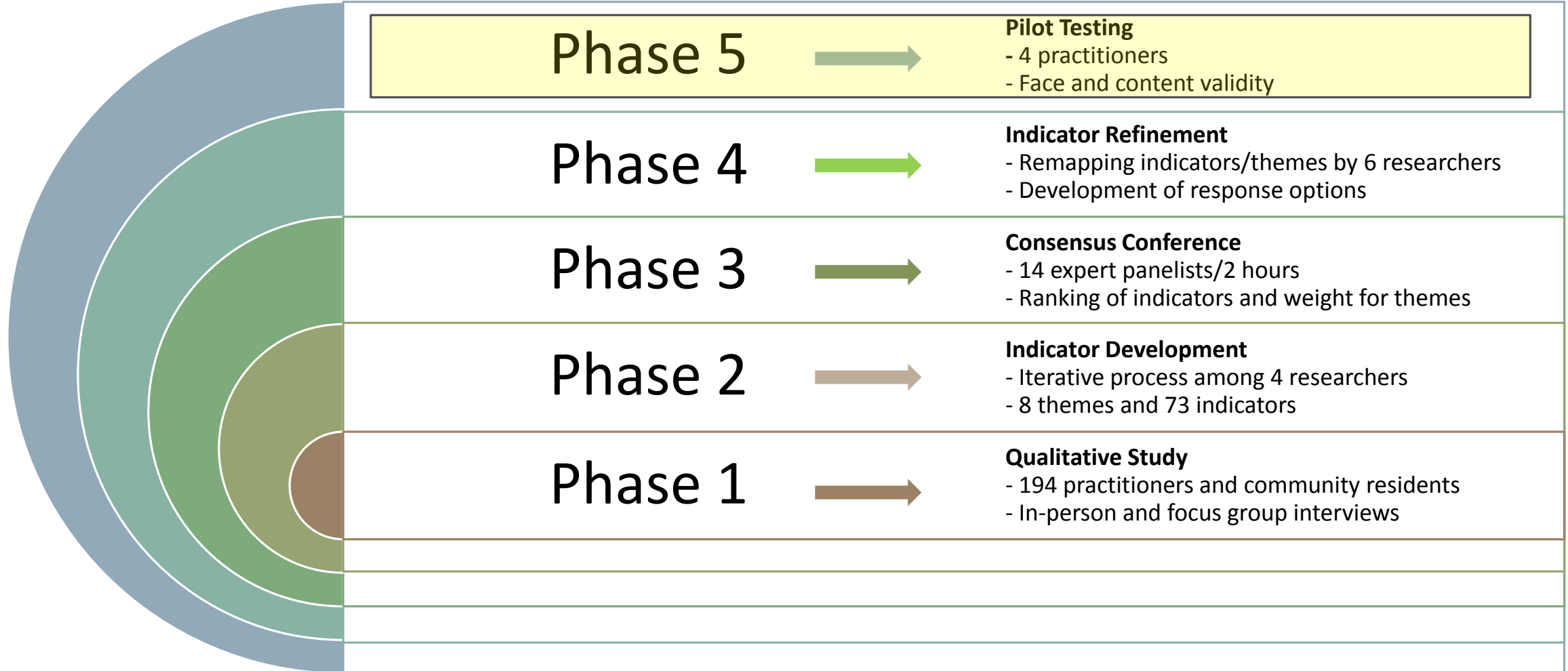**Pilot Testing**
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Phase 4: Indicator Refinement

- Reviewed comments from panel
- Revised language of some indicators
- Merged indicators to create new indicators
  - Took higher weight of the merged indicators to be weight of the new indicator.
- Reviewed possible response options for the FM PSE and mapped theme to scores on a scale of 0 to 1.

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Phase 5: Pilot Testing – phone interview

❑ What is your overall impression of this instrument?

❑ What did you like best?

❑ What could be improved?

❑ How long did it take you to answer the questions?

❑ In what ways can you see yourself or anther practitioner using this instrument?

❑ What would motivate you to use this instrument?

Phase 5: Pilot Testing - Revisions

Revision	Example
Words or phrases in indicators that pilot testers had to read more than once or didn't understand were revised for clarity.	"Foods commonly consumed by my service population" was changed to "fruits and vegetables commonly consumed by your service population."
Eliminated "how much," "how many," and "how often" from indicators. Specific frequencies were difficult for pilot testers to quantitify. Indicators were revised to begin with "To what extent."	In the past year, to what extent did you collaborate or partner with another practitioner or organization to work on FM PSE projects?
Pilot testers reported that many indicators were too long and/or had repetitive wording. The stem "To what extent" was removed from each indicator and now appears once at the beginning of each section.	
To address repetitive language, a definition key was added to the tool. Indicators were shortened by using only keywords instead of a longer description.	"People receiving SNAP benefit or other low-income populations in your service area" was shorted to "people'"
Examples were added to indicators to clarify terms that pilot testers didn't understand or suggested for clarity.	"Famer education programs" was added as an example to clarify the phrase "agricultural development programs."
Response options for all indicators in all four tools were changed to the same Likert scale. A Don't Know option was added to those questions that pilot testers could not answer.	Not at All, Slightly, Moderately, Very, Extremely, Don't Know.
The format of the tool was changed to organize indicators by theme. Each section included a theme title and definition.	
Pilot testing helped the research team refine the definition of service area.	Pilot testers' definitions of service area included entire counties, census track areas and specific towns. Pilot testers were not using zip codes to define their service area(s) so this question was removed from the PSE READI and a field added so specific counties could be listed.

Summary of Indicator Refinement
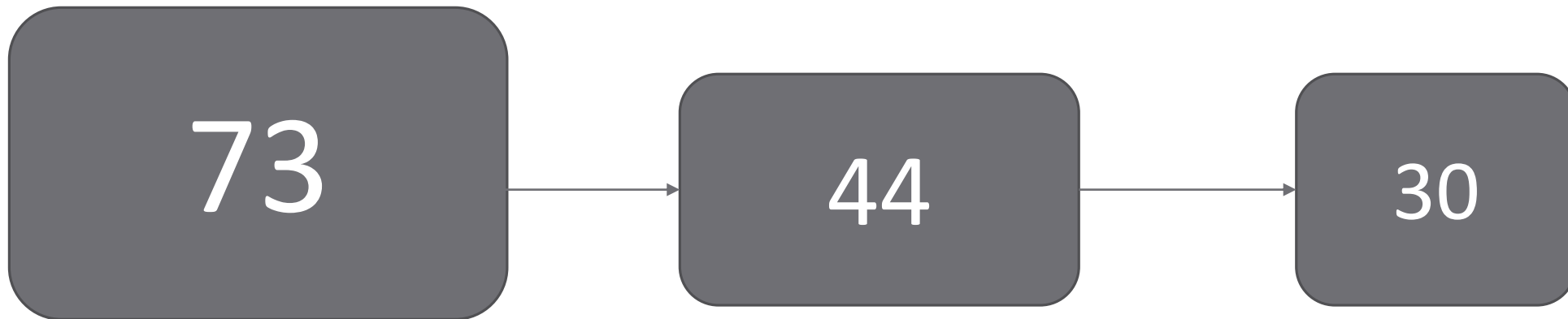
# of Indicators before Consensus Conference

 # Indicators after Consensus Conference

 # Indicators after Review of consensus conference results, 80% rule & Pilot testing
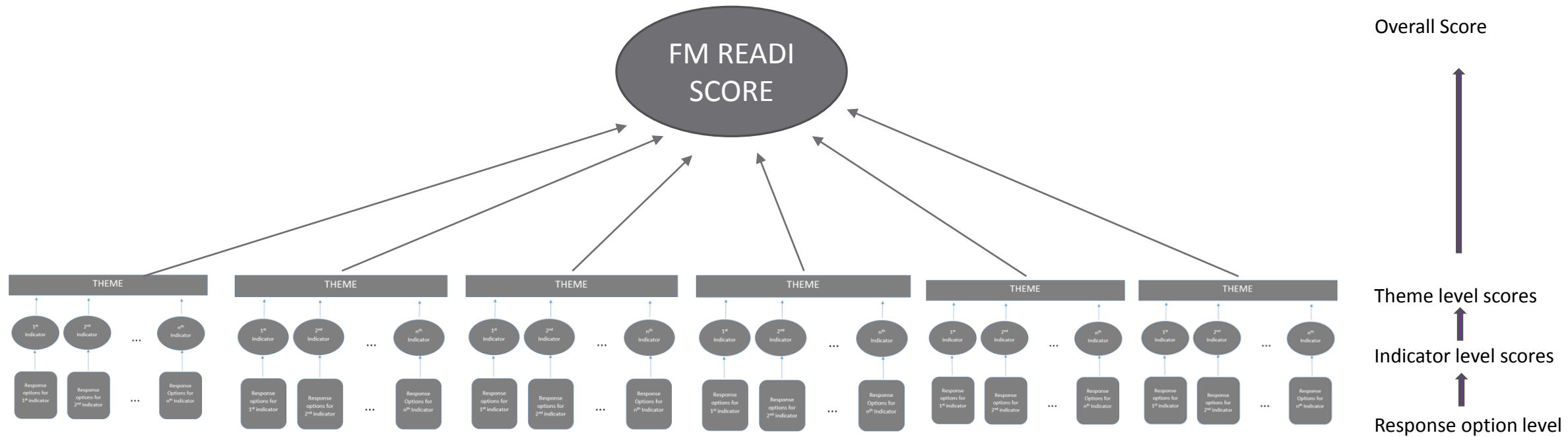
73 → 44 → 30

FM PSE READI: Putting it all together

Response options developed in **phase 4**
Weights applied to theme and Indicator scores developed from **phase 3**

FM PSE READI = Farmers' Market Readiness Assessment and Decision Instrument

SUSTAINABILITY SCORE: $Z_1*(W_{11}*Y_{11}+W_{12}*Y_{12}+W_{13}*Y_{13})$ ➔ $Z_1*(W_{11}*Y_{11}+W_{12}*Y_{12}+W_{13}*Y_{13})$/SUM OF ALL THEME SCORES ➔ $[Z_1*(W_{11}*Y_{11}+W_{12}*Y_{12}+W_{13}*Y_{13})$/SUM OF ALL THEME SCORES]*100

Theme

Z_1

Sustainability

$W_{11}*Y_{11}$

$W_{12}*Y_{12}$

$W_{13}*Y_{13}$

Indicators

W_{11}

To what extent are people receiving SNAP benefits or other low-income populations in your service area motivated to use farmers' markets? .

W_{12}

To what extent do advertisements about farmers' markets in your service area include clear information about locations and hours of operation?

W_{13}

To what extent are the prices at local farmer's markets comparable to prices at local supermarkets?

Responses

Y_{11}

Y_{12}

Y_{13}

1= Not at all
2 = Slightly
3 = Moderately
4 = Very
5 = Extremely
No FM in service area

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Ongoing work

- Assessing content validity of the tool using an external panel of researchers on implementation of Farmers' market projects/ interventions.

- Operationalizing the tool to an online platform.
  - Developing a database of online resources the tool will draw recommendations from.
  - Collecting additional contextual variables to produce customized reports to accompany recommendations generated by the tool.

- www.bcop.com

Questions & Answers

Contact Info

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