

# OVERVIEW OF THE RESEARCH PROCESS: COMMUNITY-BASED PARTICIPATORY RESEARCH



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# TODAY

- What is research?
- Why do research in a community setting?
- Potential risks and pitfalls
- Introduction to Community Based Participatory Research
- Overview of data collection and evaluation measures



# DEFINITIONS

- Research: "A systematic investigation, including development, testing, or evaluation, designed to develop or contribute to generalizable knowledge."



- Evaluation: "A systematic and objective assessment of an ongoing or completed project, program or policy, its design, implementation and results."

# TYPES OF RESEARCH AND EVALUATION

## RESEARCH

- Descriptive/Describe current conditions
- Hypothesis testing

## PROCESS EVALUATION

- How did the program (the PROCESS) go?
- Did we do what we said we would do?
- Document program activities

## OUTCOME EVALUATION

- What were the effects (or OUTCOMES) of the program?
- Measures progress toward meeting your objectives.

# WHY DO RESEARCH IN A COMMUNITY SETTING

- To be accountable to the community we serve
- To gain new knowledge and insights about our work that result in improvements to our work
- To build the capacity of organizations and people
- To be good stewards of the resources entrusted to us
- To influence policymakers and funders
- To share what we are learning with other communities

## RISKS AND PITFALLS TO BE MINDFUL OF WHEN COMMUNITY AND RESEARCHERS PARTNER TO CONDUCT COMMUNITY RESEARCH

- Historical breeches of trust and abuse of power (Tuskegee Experiment)
- Promotion of white culture and white supremacy
- Delegitimization of local knowledge and expertise

# ONE APPROACH → COMMUNITY BASED PARTICIPATORY RESEARCH (CPBR)

- An applied collaborative approach that enables community residents to actively participate in the full spectrum of research
  - from conception – design – conduct – analysis – interpretation – conclusions – communication of results

with a goal of influencing change in community health, systems, programs or policies.
- Community members and researchers actively partner to combine knowledge and action for social change.

# COMMUNITY BASED PARTICIPATORY RESEARCH (CBPR)

- CBPR is **not** a method or set of methods, but uses all kinds of methods to answer research questions
- CBPR is an orientation to research which equitably involves all partners in the research process and recognizes the unique strengths that each brings.



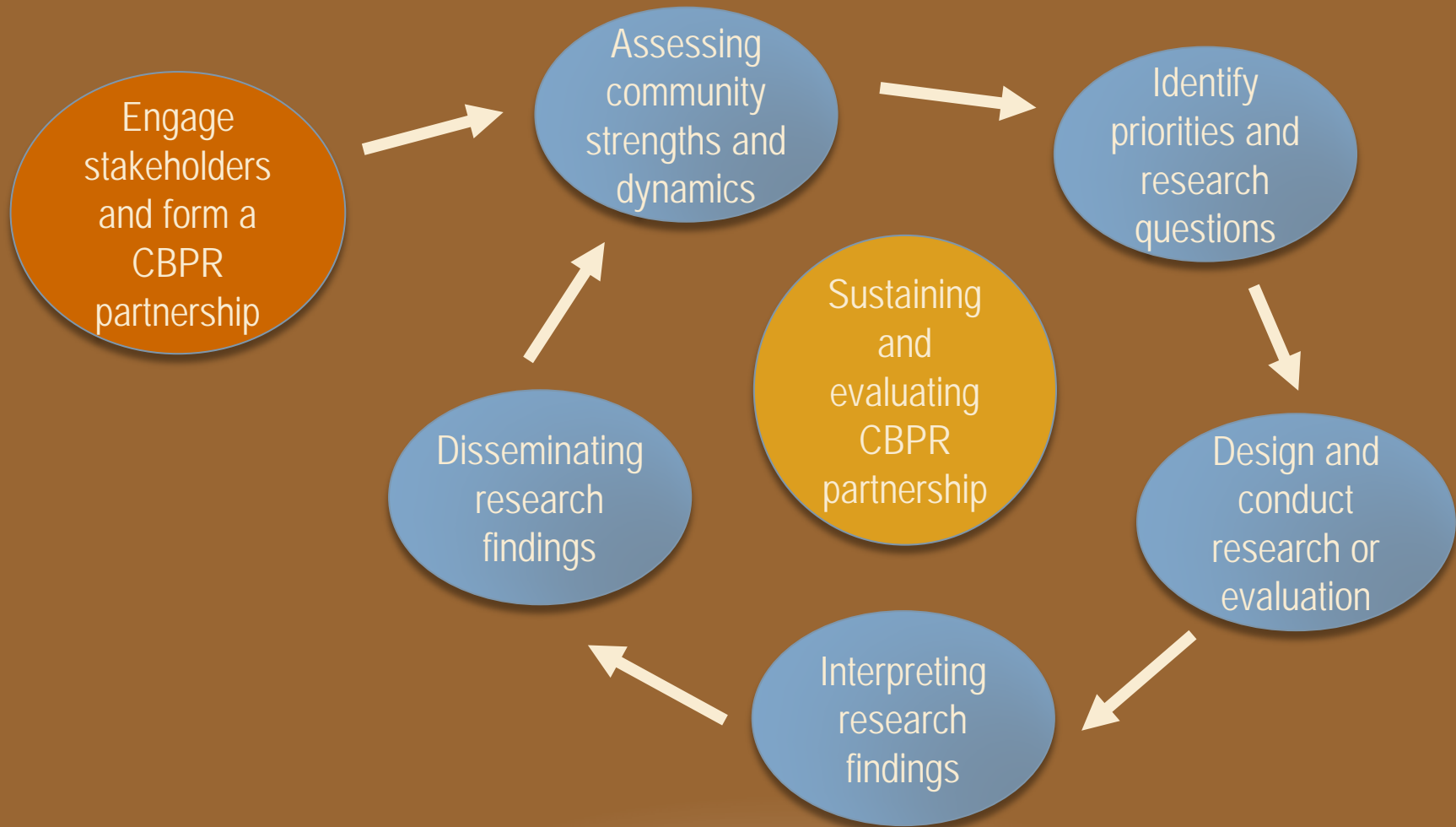
# WHY CBPR?

- Many complex health and social problems not well suited to “outside expert” research
- History of research abuse and mistrust: “helicopter” or “drive-by” research
- Disappointing results in intervention research
- Increasing understanding of importance of local and cultural context
- Increasing interest in use of research to improve best practices/best processes

# VALUES AND PRINCIPLES OF CBPR

- Builds on strengths and resources
- Promotes co-learning and capacity building
- Seeks balance between research and action
- Disseminates findings and knowledge to all
- Involves long-term process and commitment

# CBPR RESEARCH PROCESS



# WHO ARE STAKEHOLDERS?

- Participants in a program or receiving services
- Staff and board
- Other community members and residents
- Partner organizations
- Local institutions
- Policy and decision-makers
- Funders

Engage stakeholders and form a CBPR partnership



# WHY ENGAGE STAKEHOLDERS

Engage  
stakeholders  
and form a  
CBPR  
partnership

- The process and outcomes are stronger when you include diverse perspectives and experiences
- Stakeholders bring valuable insight to the table
- Inclusion helps to ensure that important issues are not overlooked or swept under the rug
- Stakeholder participation in analyzing and interpreting findings can be extremely insightful
- Stakeholders have access to communities that can be helpful when collecting data and disseminating results

# IDEAS TO ENGAGE STAKEHOLDERS

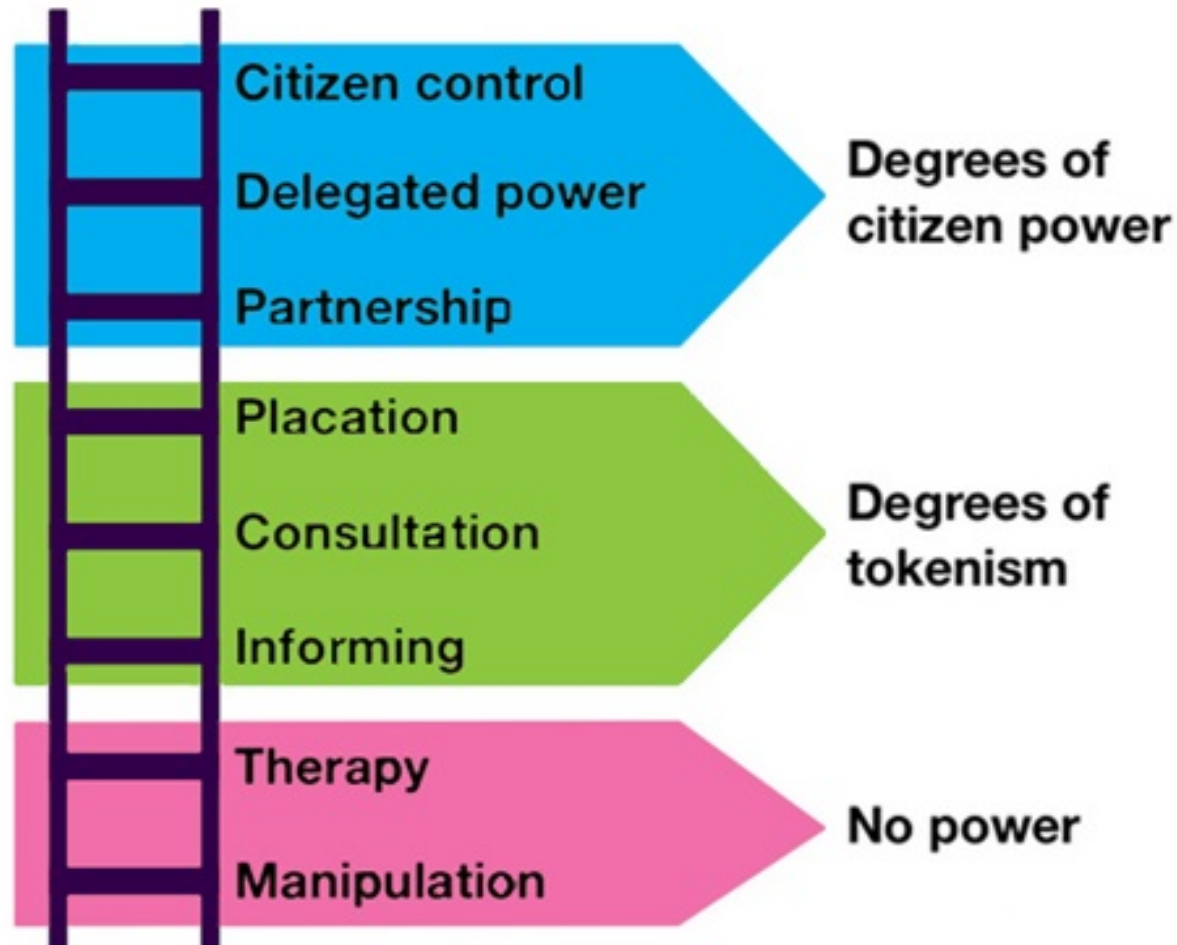
Engage stakeholders and form a CBPR partnership

- Develop and tend to community relationships
- Talk to people
- Surveys
- Interviews
- Focus groups
- Meetings
- Best practice: Form Research Steering Committee

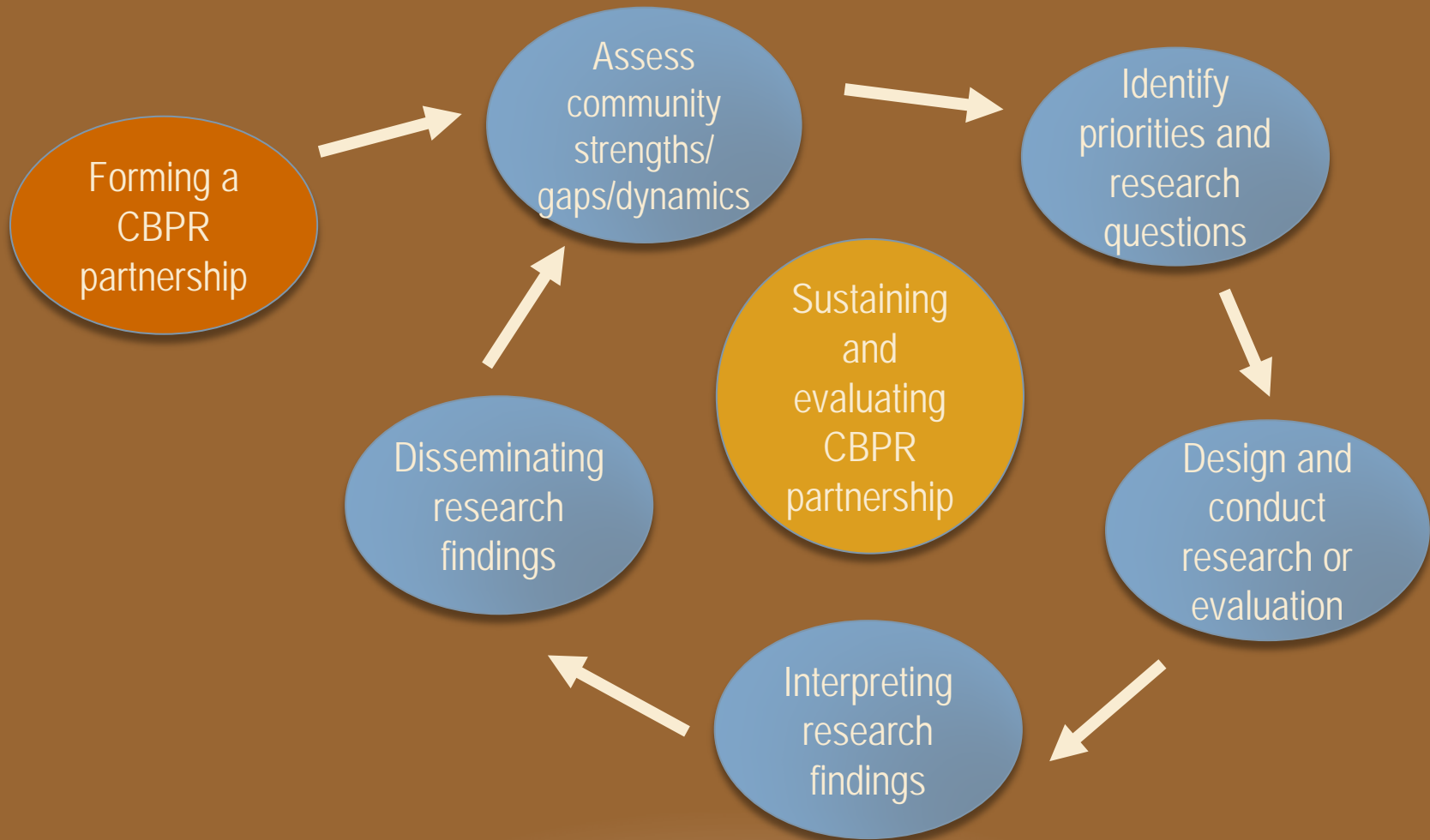


Engage stakeholders and form a CBPR partnership

## Arnstein's Ladder of Public Participation



# CBPR RESEARCH PROCESS





# ASSESS COMMUNITY STRENGTHS/GAPS/DYNAMICS

Assess  
community  
strengths/  
gaps/dynamics

EXAMPLE STEPS outlined by Community Tool Box  
(<http://ctb.ku.edu/en/assessing-community-needs-and-resources>)

1. Describe the makeup and history of the community to provide a context within which to collect data on its current concerns
2. Describe what matters to people in the community
3. Describe what matters to key stakeholders
4. Describe the evidence indicating whether a particular problem or goal should be a priority issue
5. Describe the barriers and resources for addressing the identified issues
6. Select and state the priority issue (or issues) to be addressed by the group

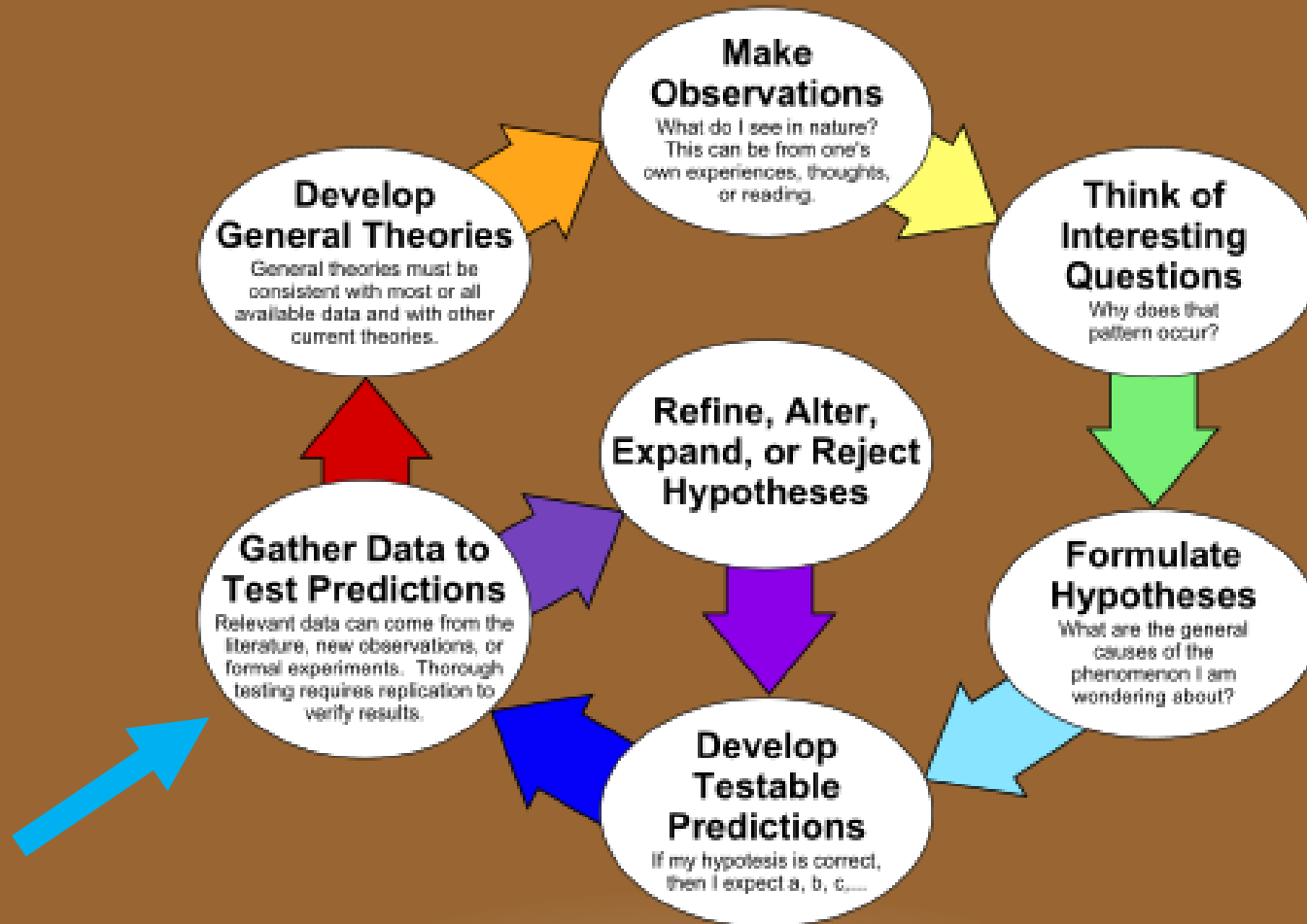
# IDENTIFY PRIORITIES AND RESEARCH QUESTIONS

Identify  
priorities and  
research  
questions

- Working with your partners to choose an appropriate research question is the most important step in the research process.
- Research questions should be clear and concise.
- Your research question helps you pick your methods – your methods need to match the question you have in mind.
- An hypothesis is an educated guess about what you will find through your research question.
- Some research is exploratory, without a hypothesis.

# USE THE SCIENTIFIC METHOD TO DESIGN AND CONDUCT RESEARCH

Design and conduct research or evaluation

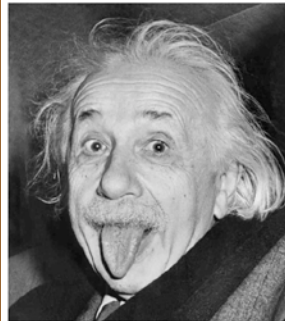


[https://en.wikipedia.org/wiki/Scientific\\_method](https://en.wikipedia.org/wiki/Scientific_method)

Adapted from [http://idea.ucr.edu/documents/flash/scientific\\_method/story.htm](http://idea.ucr.edu/documents/flash/scientific_method/story.htm)

# OVERVIEW OF DATA COLLECTION & EVALUATION METHODS

- Secondary vs. Primary data types
- When to use qualitative (focus groups, interviews) vs. quantitative (surveys)
- Qualitative methods synopsis
- Quantitative methods synopsis



“In the middle of difficulty lies opportunity. The important thing is not to stop questioning.”

*Albert Einstein*

# PROS/CONS TO SECONDARY & PRIMARY DATA

Secondary	Primary
<b>PROS</b>	
Readily available and inexpensive	Tailored information to answer specific questions
Less hassle and expertise needed to collect	Control the quality of the data
<b>CONS</b>	
Type of data collected not determined by you	Deciding why, what, how, when to collect <ul style="list-style-type: none"><li>• Designing quality instruments</li></ul>
Obtaining additional data to clarify not possible	Obtaining funding, resources, staff, etc.
Technical skills in analyzing and interpreting	Ethical considerations (e.g., consent)



# WHEN TO USE QUALITATIVE VS. QUANTITATIVE METHODS

Design and  
conduct  
research or  
evaluation

- Qualitative approach
  - Exploring a subject about which you don't know much in advance (exploratory)
  - Allows you to further understand meanings, motives, reasons, patterns (explanatory)
- Quantitative methods
  - Compare data in a systematic way, make generalizations to a population, test theories with hypothesis
  - Utilize surveys when we are able to anticipate all pertinent questions
- Key differences
  - Data represented by numbers and statistics vs. words, which are context-based
  - Analysis is iterative with qualitative, modifying procedures with new information
  - Test hypotheses with quantitative data, develop new theories and concepts with qualitative

Food  
systems as  
a relatively  
novel area  
of research

Design and  
conduct  
research or  
evaluation

# QUALITATIVE METHODOLOGY

Meaning



Design and  
conduct  
research or  
evaluation

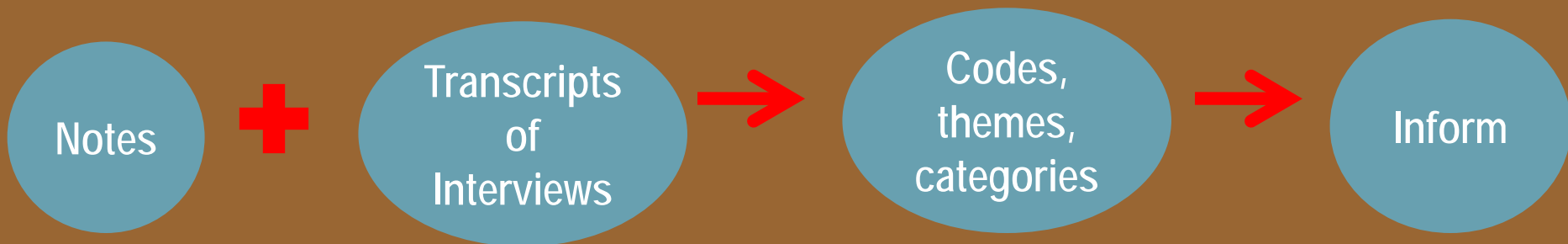
# QUALITATIVE METHODOLOGY

## Two unique features of qualitative research

- The researcher is the “tool” through which the study is conducted
- The purpose is to learn some facet of the social world

## Characteristics of qualitative research

- Takes place in the natural world
- Uses multiple methods (interviews, focus groups)
- Focuses on context
- Is emergent, rather than tightly prefigured
- Is fundamentally interpretive





# DEVELOPING RESEARCH/EVALUATION QUESTIONS

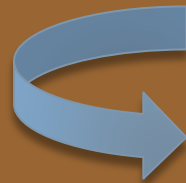
Design and  
conduct  
research or  
evaluation

A clear, focused, concise, and  
arguable question around which you  
center your research

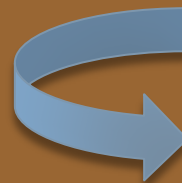
Identify topic of interest/program in  
question



What do you already know about  
the topic (evidence, theory)? What  
else do you want to know?



Narrow down the focus, add specific  
language, limit ambiguity



Identify "constructs"/concepts of  
interest

## Process

Identify topic of interest/program in question

What do you already know about the topic (evidence, theory)? What else do you want to know?

Narrow down the focus, add specific language, limit ambiguity

Identify "constructs"/concepts of interest

## Example Development

Poor fruit and vegetable consumption

Health behavior theories, knowledge, self-efficacy, and access related to consumption

How can we increase consumption in our communities?

Focus on low-income communities in medium sized cities, identify current shopping behaviors and factors that influence

What are the important psychosocial factors that influence food shopping decision making among low-income populations in medium sized cities in Michigan

## "Constructs"/ Concepts/ "things to measure

- Perceived food access
- Knowledge of recommendations
- Self-efficacy to purchase, prepare and consume FVs
- Transportation
- Perceived social norms
- Factors influencing food decisions

**“Constructs”/  
Concepts/ things to  
measure**

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- Transportation
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- Factors influencing food decisions

1. Review existing measures (tested for validity, reliability)
  - Consider which populations and settings tested in previously
2. Select, design, modify instruments – with caution!
  - Consider: mode (paper-pencil, electronic, in-person/interview), participant burden
3. Select sample (e.g., participants in a program, members of a neighborhood, visitors at a farmers market)
  - Design recruitment strategy
4. Set timeline and collect data!
  - Extend timeline/allow for additional time
5. Enter data (consider use of technology, online, etc.)
6. Clean data (look for outliers, how much is missing)
7. Analysis (means, frequencies, percent)

# SURVEY DESIGN – A FEW TIPS

1. Review existing measures (tested for validity, reliability)
  - Use of national survey items (e.g., BRFSS)
  - Consider which populations and settings tested in previously

2. Wording of questions
  - Consider: literacy level, understandability, interpretation
  - Avoid asking more than one question at a time
  - Include appropriate lead in to provide context

3. Response options
  - Yes/no limits interpretation
  - Likert scale preferred

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	I don't know
4. It is easy to find fresh fruits and vegetables within my neighborhood.	0	1	2	3	4	
5. The fruits and vegetables in my neighborhood are high quality.	0	1	2	3	4	
6. There is a large selection of Michigan-grown foods available in my neighborhood.	0	1	2	3	4	

4. Consider scoring and analysis
  - Will items create scale? How is it scaled (e.g., do higher # indicate increased food access)

# RESOURCES FOR FINDING EXISTING SURVEY TOOLS

- Relevant to childhood obesity (<http://tools.nccor.org/measures>)
- Broad range of measurement tools related to obesity and health (<https://www.gem-beta.org/Public/Home.aspx>)
- Food environment measures (<http://appliedresearch.cancer.gov/mfe/>)

# DON'T FORGET ABOUT IRB: PROTECTING "HUMAN SUBJECTS"

Design and  
conduct  
research or  
evaluation

- All research with humans should be approved by an Institutional Review Board (IRB) charged with protecting against harm.
- **Human subject:** "a living individual about whom an investigator ... conducting research obtains data through intervention or interaction with the individual, or identifiable private information"
- → Low cost training: <https://www.citiprogram.org/>

## THREE GUIDING PRINCIPLES OF IRB'S

- **Respect for Persons:** Every person has the right to determine what shall happen to him or her, i.e. participation must be voluntary. Special consideration and protection is given to “vulnerable” subjects such as children, persons with cognitive disabilities, prisoners, and institutionalized persons
- **Beneficence:** Risks should be reasonable in relation to the anticipated benefits
- **Justice:** Risks and benefits should be justly distributed – who ought to receive the benefits of research and who should bear its burdens?

# PROTECTING CONFIDENTIALITY

- Confidentiality should be maintained by:
  - Restricting access to data to only researchers and staff who have completed IRB training
  - Protecting data through a password protected file or in a locked cabinet
  - Do not store identifiable data on a laptop computer which can be lost or stolen



# INTERPRETING RESEARCH FINDINGS

- Various levels of stakeholder participation in data analysis depending on resources
- Presentation of preliminary findings to steering committee/team members
- Iterative feedback between community partners and researchers

# DISSEMINATING RESEARCH FINDINGS

- Traditional research outlets: journal articles, scholarly presentations, books
- Work through partner networks: newsletters, media, etc.

# WE KEEP GROWING

In Detroit, urban gardeners and farmers are changing the way we eat, live, and connect to one another and in the process are collectively cultivating a food sovereign city. Keep Growing Detroit is honored to help collect, preserve, and share these stories with our extraordinary community. Enjoy!

## RUFINO VARGAS

Working with the land, it's not easy—I do everything by hand. I love my peppers and corn. The first thing is economy. In the summer I don't buy tomatoes or peppers. I grow my own; I have my own flavor in my food. I grow my own garlic and onions. I had a lot of hot peppers because we eat [food] very hot in Mexico.

I fill my kitchen. I feed three families with my gardens. I sell to my friends. [If] I need some money to buy some tools, I sell my produce and I make money. Last year I made \$1,000 dollars from selling my produce. I save a lot—for three or four months from the store I buy only the meat. I have garlic, onions, tomato, lettuce, peppers, herbs. Michigan is a good place to grow. Since I started my garden my sugar levels went down. I lost weight. I think I lost ten lbs. I improved my mood.



**“MY SUGAR LEVELS WENT DOWN. I LOST WEIGHT. I IMPROVED MY MOOD.”**

I find my own person, my spirit working in the garden. Kids, they learn how to respect my garden. They see how I work. They learn how to work because they help me. They take home eggplant. They are learning to respect another. After my garden I saw a lot of people start doing

gardens. I have a lot of flowers. One guy came and said, 'I want some flowers for my wife but I don't have any money.' I give him.

I don't make too much money but if I make extra money I can pay someone to help me. Some people ask me for job but I can't pay the regular rate

[but] I can give them vegetables. Market gardening every Saturday, for me, it's extra money. I make 70 dollars a week most times but one week it was \$140.

My goal for this year is to grow more than \$10,000 in produce. When I [reach] this goal I want to get \$20,000. I want to buy [more] lots from the city. My main customers are the Mexicans because I grow a lot of hot peppers. I grow ethnic produce [like] papalo. I find the market; they find me.

#WEKEEPPGROWING

# LESSONS FROM A LONG-STANDING PARTNERSHIP



- Flexibility
- Patience and Timing
- Trust
- Tension is okay
- Curiosity and continuous improvement
- Sharing resources



# QUESTIONS?



Thank you.

