

# Mixed Methods: A Brief Overview

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# Agenda Slide

Qualitative methods

Mixed methods

Examples and Brainstorming



*"I'm a social scientist, Michael. That means I can't explain electricity or anything like that, but if you ever want to know about people I'm your man."*

# Uses for Qualitative Research in Public Health

- Obtain data that are useful on their own:
  - Detailed, contextually-based data on subtle meanings associated with attitudes, beliefs, and behaviors
  - What, how, and why people conceptualize issues differently in different contexts
  - Generate “indigenous” terms and categories
  - Information that enhances patient care and intervention design
  - Generate new avenues for study
  - To explain quantitative results
- Obtain data that serve as building blocks
  - Preliminary data for instrument development
  - Understand range of survey responses
  - Test surveys and/or intervention elements

# Uses for Qualitative Research

- Formative Research
  - Entering the setting
  - Developing a conceptual framework
  - Developing interention activities/materials
  - Developing evaluation methods
- Process tracking
- Outcome evaluation

# Qualitative Methods Toolbox

- Observation
- Individual interviews
- Group interviews /Focus Groups
- Document and archive reviews

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# Mixed Methods: A Definition

- A methodology for conducting research that involves:
  - collecting, analyzing, and integrating quantitative and qualitative research (and data)
  - in a single study
  - or a longitudinal program of inquiry.
- Components of MM
  - Collecting both quantitative and qualitative data
  - Mixing the data
  - Pragmatic
  - Collaboration between quantitative and qualitative researchers
  - Acknowledges different philosophical and theoretical perspectives



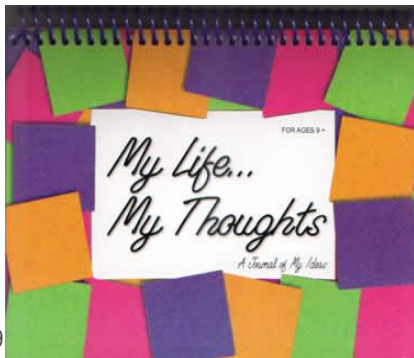
# Strands of Inquiry

## Qualitative

- Observation
- Focus groups
- Interviews
- Textual/document analysis

## Quantitative

- Survey
- Interview
- Biomarkers
- Imaging
- Sorting
- Technology/EMM



# Mixing

- What
  - Qualitative and quantitative research
  - Philosophical assumptions
- Where
  - Throughout the process of research
- Why?
  - Validity
  - Completeness
  - Process
  - Different questions
  - Measures development
  - Context
  - Illustration



# Mixing the Methods (How): 3 Primary Methods

## Concurrent Design

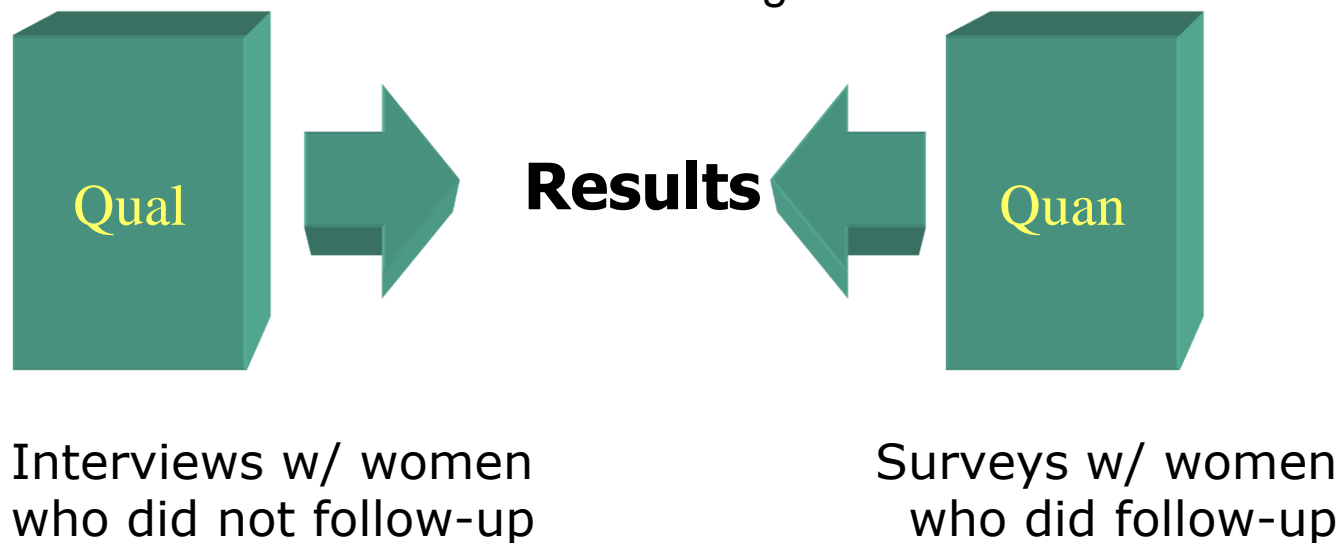
What prompts women to follow-up  
on abnormal mammograms?



# Mixing the Methods (How): 3 Primary Methods

## Concurrent Design

What prompts women to follow-up  
on abnormal mammograms?



Allen, et al, 2008

# Mixing the Methods (How): 3 Primary Methods

**Sequential:**



OR



# Mixing the Methods (How): 3 Primary Methods

## Sequential:



Factors associated w/  
smoking among CCS

Emmons, et al., 2002

Focus groups & interviews  
to learn about CCS' perceived  
health risks

Park, et al., 2003

# Mixing the Methods (How): 3 Primary Methods

**Embed the data:**

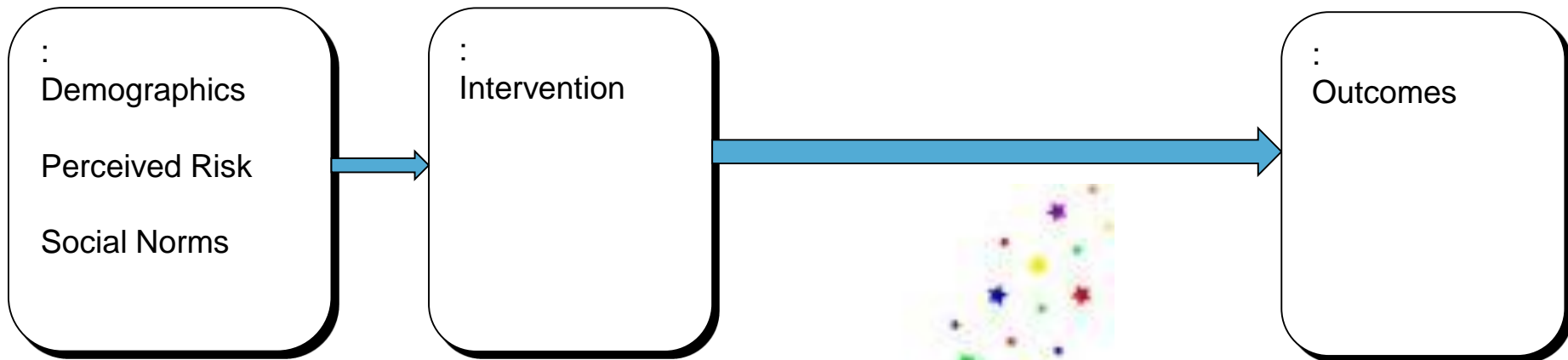


# Mixed methods Design Typology

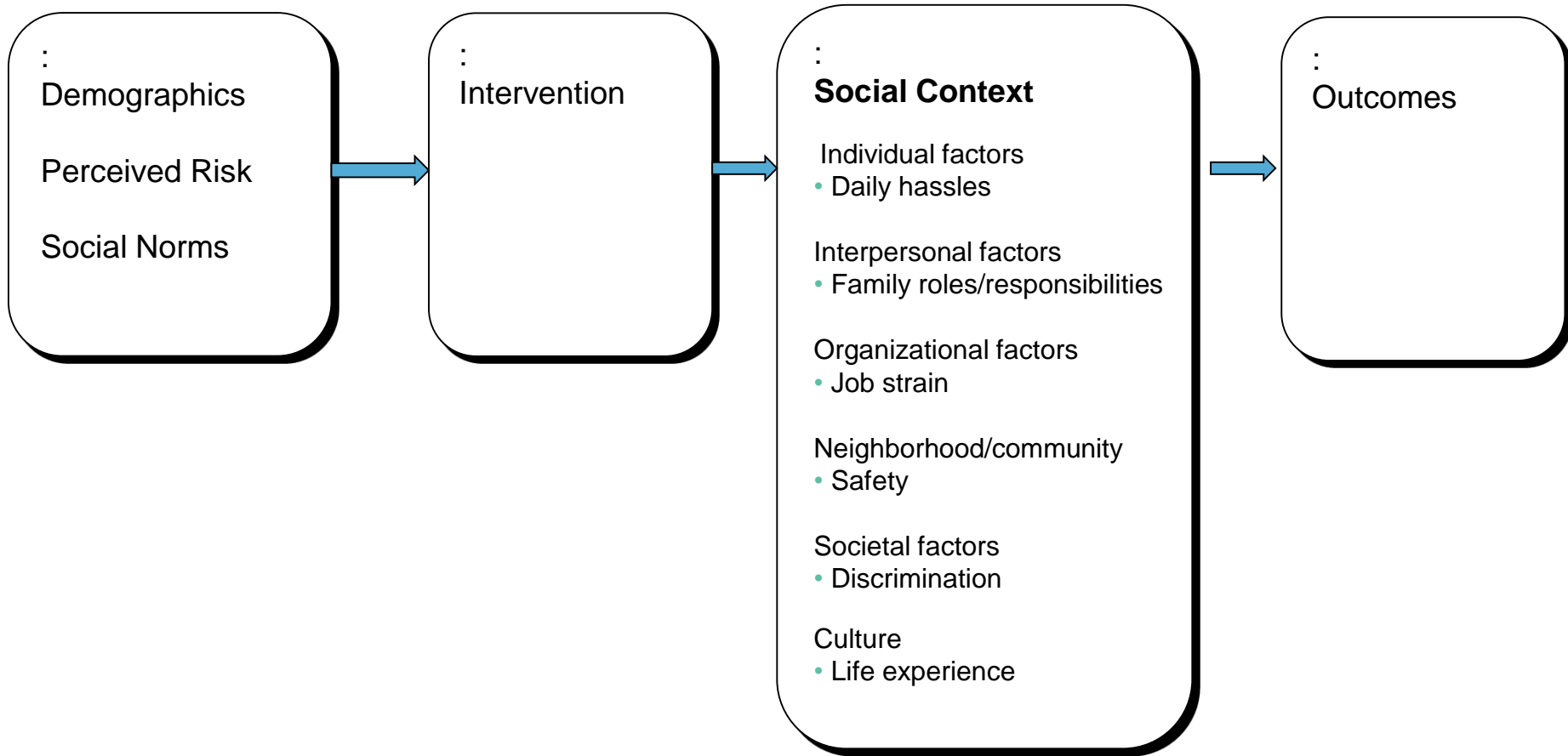
Design Type	Purpose	Data Collection Timing	Integration Timing or “Mixing”	Implementation Order
Convergence	Corroboration: Analyze data from different sources re same phenomenon	Concurrent	Interpretation	QUAL + QUAN
Complementarity	Understand a phenomenon more completely	Sequential	Analysis & Interpretation	QUAN ➤ qual
Exploratory/ Development	Instrument or taxonomy/typology development	Sequential	Analysis & Interpretation	QUAL ➤ quan
Expansion	Assess different phenomenon using different methods	Embedded-Sequential	Analysis & Interpretation	QUAN (qual) or QUAL (quan)
Transformative	Discovery of new ideas & meanings re a phenomenon	Concurrent	Throughout	QUAL + QUAN



# How Interventions Work ....???



# The Black Box ....



# Understanding Social Context: Embedded Mixed Methods Design

Life History Interview Method

Survey

Topic areas:

- description of typical day
- eating habits
- physical activity
- sources of stress, coping mechanisms
- occupational health and safety concerns

# Emergent Themes

## ■ Immigration and Social Status

- “In the beginning, it was very hard for us... like you can see, now I’m doing housekeeping. In Cape Verde, the person who works as a housekeeping is the one that have no school, no education... I didn’t expect like that, I expect something better, starting at the factory, and after a few years go to school. But it’s very difficult when you get here. It’s not easy to go to school when you come here with the family.”

Contextual Issues; Feelings of stress related to status inconsistency between professional education and current occupation

# Emergent Themes

- Social Support

- “In Haiti, a friend is somebody’s shoulder you cry on. But in the US, people make friends just for opportunity... It’s more about what I can do for you, what you can do for me... I think it probably comes from the fact that people are more individualistic...

Contextual Issues: Variations in perceptions of social support and concept of family

# Emergent Themes

- Occupational Health and Safety

- "In the summer time, it was so terrible hot, and they say that they can't do anything for you.. This is my first job; I don't know about safe here or no. They gave me one [OH] video.. Whatever.. ba., ba, ba. I didn't understand it at all.. When we come here, you get this kind of job, you don't think if it's safe or not for you. You only want to make money... we don't have a lot of options..."

Contextual Issues: Acceptance of poor environmental working conditions

# Social Context

- Influence of social networks
- Cultural and language factors
- Barriers posed by restricted access to social and material resources
- Health experiences that impact on need/ability to change

# Social Contextual Intervention

- *Challenge to Intervention Development:*
  - reflect realities of working class experience
  - be inclusive and flexible enough to resonate with diverse ethnic backgrounds



# Summary

- Mixed methods research:
  - is multi-faceted and versatile; can be used in a range of ways
  - can answer questions related to multiple stakeholders, and multiple system and organizational levels
  - reflects sum being greater than it's parts

Gregory Aarons, TIDIRH, 2013