

# Improving the Work of Breastfeeding Support Professionals through Home Visitation: What Works?

**Stephen Edward McMillin, PhD, MA, AM (MSW)**  
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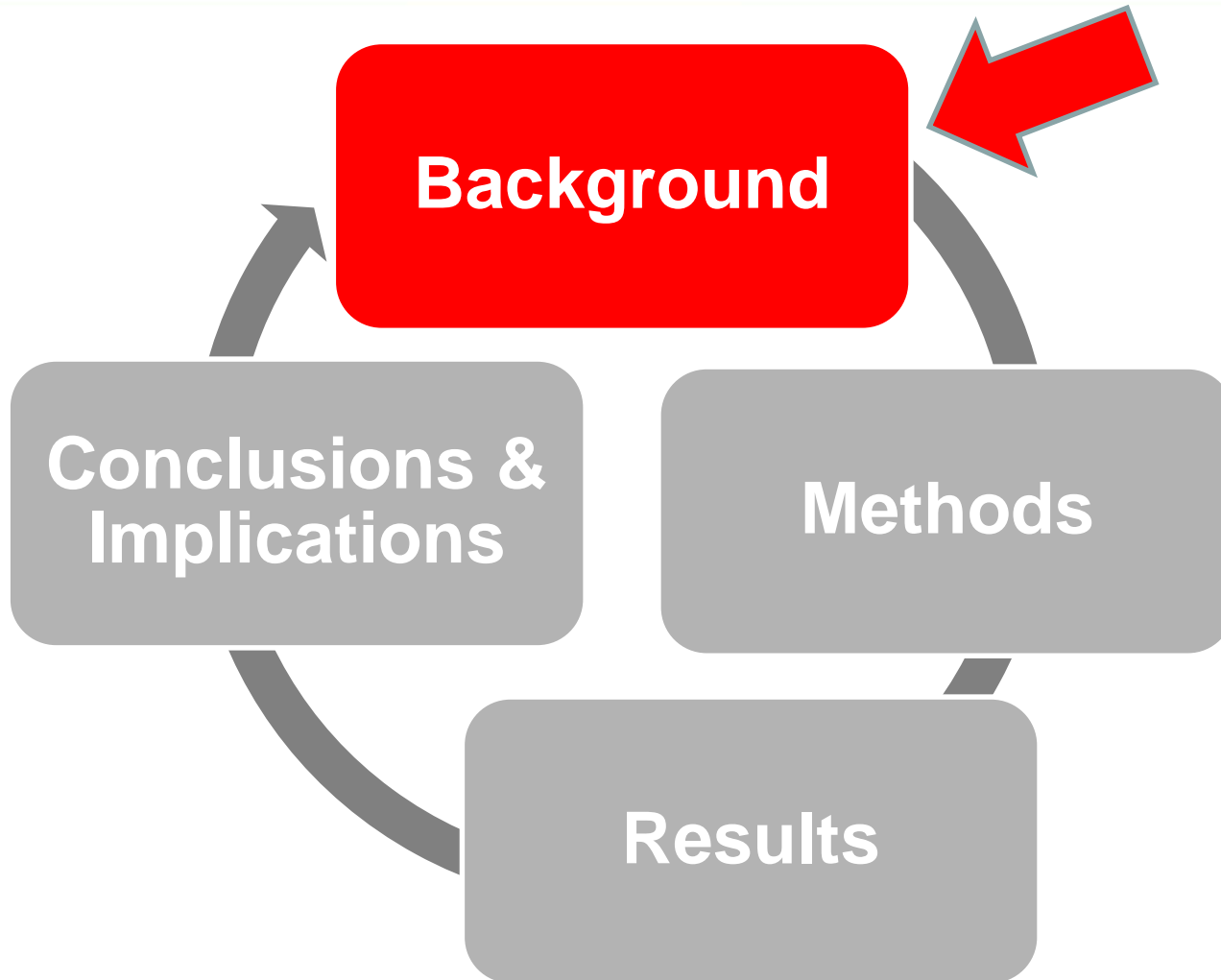
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# Outline



# Background: BF Has Great Benefits

## The Breastfed Baby

**Immune system:** Provides best protection against infections. Helps the baby to develop immune system. Decreased risk of childhood cancer.

**Brain:** Higher IQ. Children who are breastfed are 10% more likely to have higher IQ.

**Teeth:** Children who are breastfed are less likely to require dental care.

**Diarrhoea and respiratory infections:** Children who are breastfed are less likely to require medical attention.

**Weight:** Breastfed babies are less likely to become obese.

**Cardiovascular system:** Breastfed babies have lower blood pressure and cholesterol levels.

**Respiratory system:** Breastfed babies have fewer respiratory infections.

**Digestive system:** Breastfed babies have fewer digestive problems.

**Other benefits:** Breastfeeding is easier for the mother. Breast milk is always available and at the right temperature. Breastfeeding is a natural activity for the mother and baby.

## The Breastfed Toddler

**Hair:** Breastfed toddlers have glossier, healthier hair. Protein is a major functional and structural component of hair cells and is essential for growth and repair. After 12 months 448 ml of breastmilk provides 43% of a toddler's protein requirements in its most natural form.

**Ears:** Breastfed toddlers have better hearing due to a lower incidence of ear infections.

**Brain:** Higher intellectual and cognitive aptitude compared to formula fed peers and peers breastfed for a shorter duration.

**Taste buds:** Breastfed toddlers are less likely to be fussy eaters. However even if they go through a fussy period, breastfed toddlers still get their taste buds stimulated by the range of flavours in their mother's milk.

**Portability:** Breastfed toddlers are easier to travel with. Nursing is far more convenient than carrying around feeding cups and paraphernalia, and can be a wonderful way of providing reassurance in unfamiliar surroundings.

**Immune system:** At one year of age, a child's immune system is functioning at only 60 percent of adult level. The antibodies in breastmilk continue to provide valuable protection during the toddler period. In fact, the immunological benefits of breastfeeding actually increase during the second and third years of nursing.

**Eyes:** As the eye is similar to the brain in regards to nervous tissue, breastfed toddlers have stronger vision. Also after 12 months 448 ml of breastmilk provides 75% of a toddler's vitamin A requirements. Vitamin A is needed by the retina of the eye and is necessary for both low-light (scotopic vision) and colour vision.

**Teeth:** Thumb-sucking is less likely to occur in breastfed toddlers so their teeth are less likely to become misaligned. Also increased duration of nursing actually improves the dental arch.

**Bones:** Calcium is a mineral that strengthens bones. After 12 months 448 ml of breastmilk provides 36% of a toddler's calcium requirements in its most natural form.

**Weight:** Toddlers who breastfeed for extended periods of time tend to have leaner bodies with less risk of obesity.

**Limbs:** Breastmilk is an excellent painkiller for the bumps and bruises that come with toddling and climbing.

**Skin:** Smoother and more supple.

**Hydration:** Although breastfed toddlers are less likely to become ill, if they do get sick breastmilk can keep them hydrated when they cannot tolerate other liquids.

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## Did you ever wonder what's in...?

Breastmilk	Formula
1. Contains antibodies	1. Contains antibiotics
2. Contains live bacteria	2. Contains dead bacteria
3. Contains enzymes	3. Contains synthetic enzymes
4. Contains vitamins	4. Contains synthetic vitamins
5. Contains minerals	5. Contains synthetic minerals
6. Contains hormones	6. Contains synthetic hormones
7. Contains growth factors	7. Contains synthetic growth factors
8. Contains stem cells	8. Contains synthetic stem cells
9. Contains antioxidants	9. Contains synthetic antioxidants
10. Contains probiotics	10. Contains synthetic probiotics
11. Contains lactoferrin	11. Contains synthetic lactoferrin
12. Contains lysozyme	12. Contains synthetic lysozyme
13. Contains secretory phospholipase A2	13. Contains synthetic secretory phospholipase A2
14. Contains nucleotides	14. Contains synthetic nucleotides
15. Contains oligosaccharides	15. Contains synthetic oligosaccharides
16. Contains sialic acid	16. Contains synthetic sialic acid
17. Contains lactalbumin	17. Contains synthetic lactalbumin
18. Contains lactoglobulin	18. Contains synthetic lactoglobulin
19. Contains immunoglobulin A	19. Contains synthetic immunoglobulin A
20. Contains immunoglobulin G	20. Contains synthetic immunoglobulin G
21. Contains immunoglobulin M	21. Contains synthetic immunoglobulin M
22. Contains transferrin	22. Contains synthetic transferrin
23. Contains alpha-lactalbumin	23. Contains synthetic alpha-lactalbumin
24. Contains beta-lactoglobulin	24. Contains synthetic beta-lactoglobulin
25. Contains kappa-casein	25. Contains synthetic kappa-casein
26. Contains gamma-casein	26. Contains synthetic gamma-casein
27. Contains whey	27. Contains synthetic whey
28. Contains casein	28. Contains synthetic casein
29. Contains lactose	29. Contains synthetic lactose
30. Contains galactose	30. Contains synthetic galactose
31. Contains glucose	31. Contains synthetic glucose
32. Contains fructose	32. Contains synthetic fructose
33. Contains sucrose	33. Contains synthetic sucrose
34. Contains maltose	34. Contains synthetic maltose
35. Contains starch	35. Contains synthetic starch
36. Contains cellulose	36. Contains synthetic cellulose
37. Contains hemicellulose	37. Contains synthetic hemicellulose
38. Contains pectin	38. Contains synthetic pectin
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97. Contains hemicellulose	97. Contains synthetic hemicellulose
98. Contains pectin	98. Contains synthetic pectin
99. Contains lignin	99. Contains synthetic lignin
100. Contains cellulose	100. Contains synthetic cellulose

- WHO Global Strategy on Infant & Young Child Feeding (2002)

## 21 Dangers of Infant Formula

the Infant Formula Companies don't want you to know!

**For Your Child:** When you feed your baby infant formula, you increase your baby's chance of having:


- 1 asthma
- 2 allergies
- 3 ear infections
- 4 high blood pressure & heart disease
- 5 respiratory infections
- 6 lower IQ & cognitive development
- 7 obesity
- 8 iron-deficiency anemia
- 9 SIDS (Sudden Infant Death Syndrome)
- 10 diabetes (types 1 & 2)
- 11 digestive problems
- 12 childhood cancers
- 13 exposure to environmental contaminants
- 14 sleep apnea
- 15 dental problems & malocclusions

**For the Mother:** When you don't breastfeed, you increase your own chance of developing:

- 16 diabetes (both gestational as well as type 2)
- 17 overweight & obesity
- 18 osteoporosis
- 19 breast cancer, ovarian cancer & uterine cancer
- 20 hypertensive & cardiovascular diseases
- 21 reduced child spacing

All references of the evidence-based research used for this information peer is on the back Produced by the World Alliance for Breastfeeding Action (WABA) on its 21st Anniversary - April 2012. Written by Nancy Forrest DM, MPH, WICCE, WICWA-USA Fellow for 2011/2012.

# Background: Several Supports for BF

- Positive emotional experience, help when frustrating, and breast milk can be bottled (Morse & Bortoff, 1988)
- Development of “Baby-Friendly Hospital,”  in national rates, durations of BF (Merten, Dratva, & Ackermann-Liebrich, 2005)
- Numerous, cost-effective Tx across settings (Renfrew et al., 2010; Sikorski et al, 2003)



# Background: Home Visits Support BF

- Cochrane Review: Home visits may encourage mothers to BF exclusively (Yonemoto, Dowswell, Nagai, & Mori, 2014)
- Problem: Little is known about how home visiting programs are encouraging BF or training to do this now that we know more

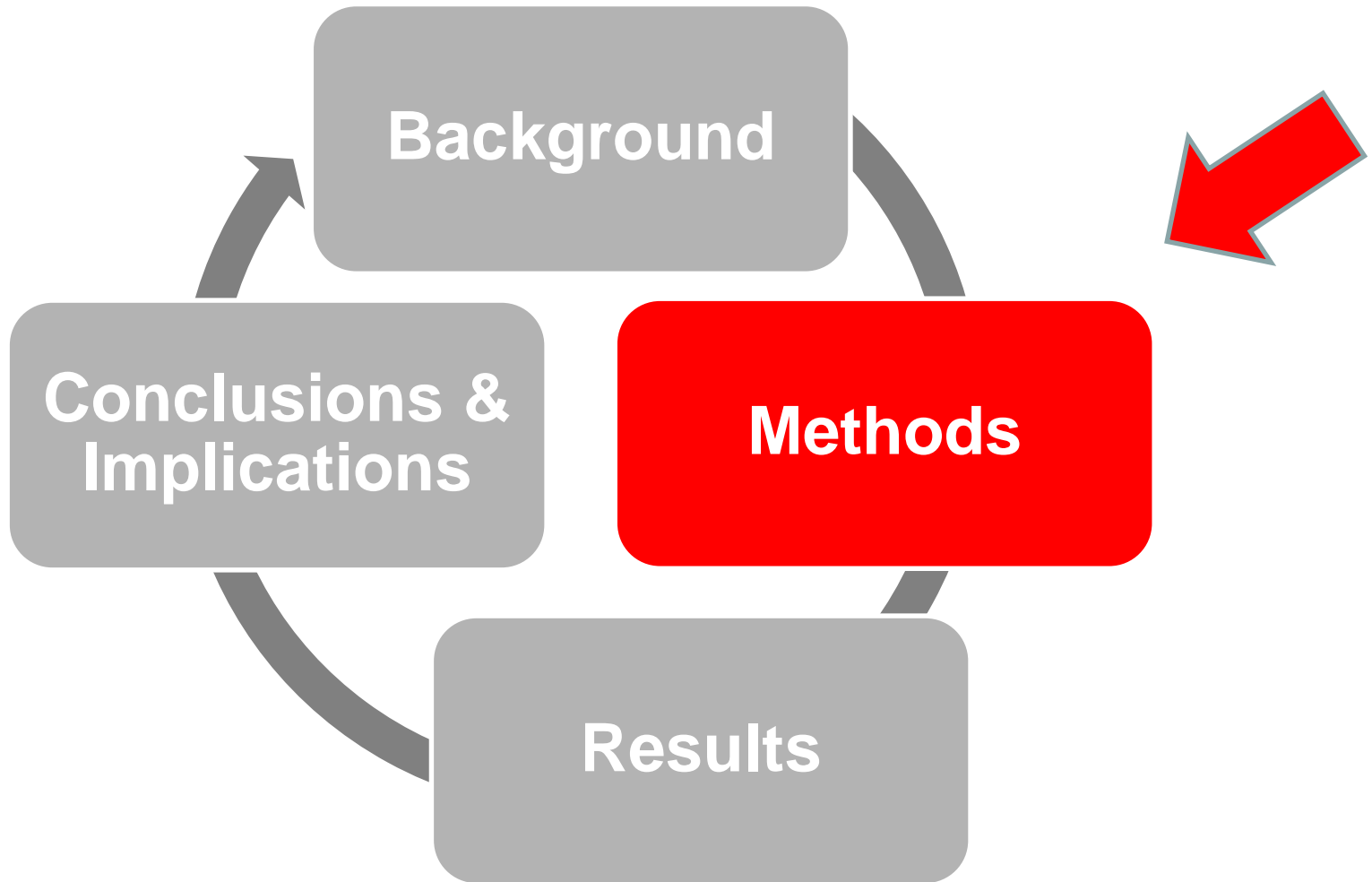


# Background: Home Visiting Defined

- Relationship-based program of (bi)weekly visits to home by trained visitors, often with other services
- Provides social support, parenting education, and linkage to other services
- Often targeted to/for low-income, vulnerable families at risk for poor child development outcomes



# Outline



# Methods: Identification of Key Pieces

- INTERVENTION:
  - early childhood home visitation
- KEY ISSUES:
  - Administrator perspectives on BF, training needs, hypothesized mediators and moderators
- EB MODELS:
  - Parents as Teachers, Healthy Families America
- SETTING:
  - Early care (home)

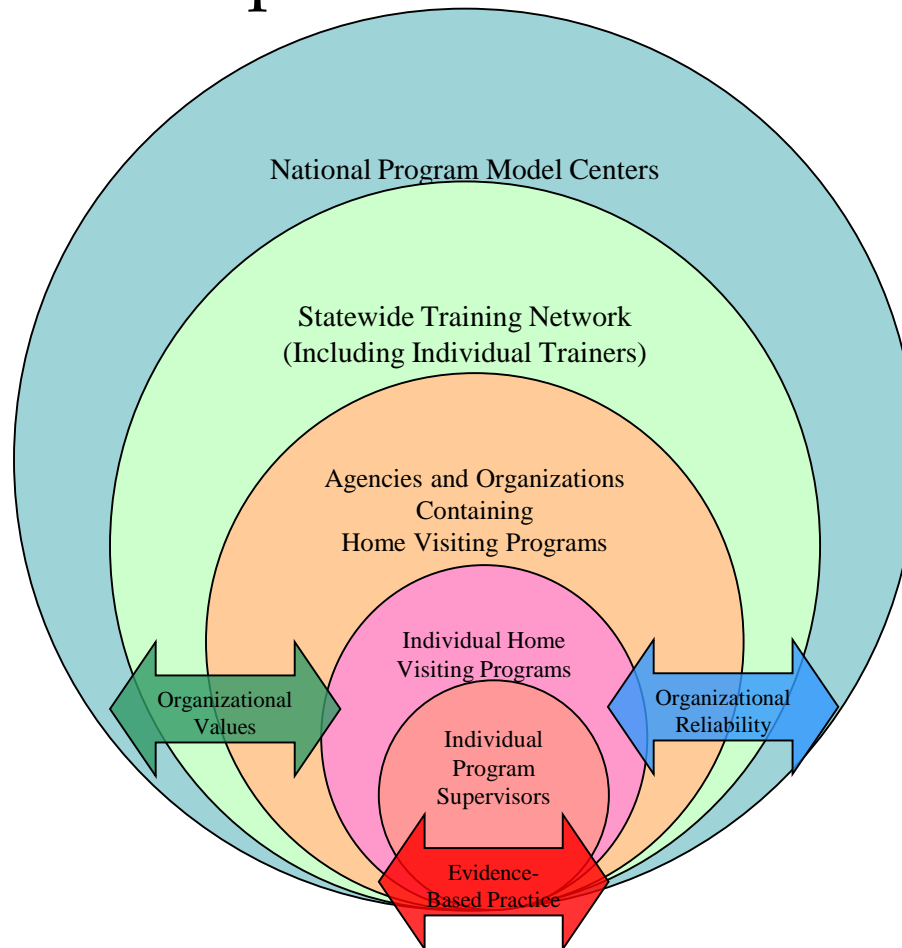


# Methods: Goals & Research Methods

- Goal of Study: Rigorous analysis of the perspectives of key opinion leaders in home visiting on breastfeeding & training needs
  - In-depth, semi-structured, qualitative interviews in a statewide home visiting network in a large Midwestern state
  - 90-120 minutes in length
  - Audio-taped and transcribed by author
  - With statewide network trainers, technical assistants, and administrators (n = 15) and home visiting program supervisors (n = 19),
  - N = 34 total

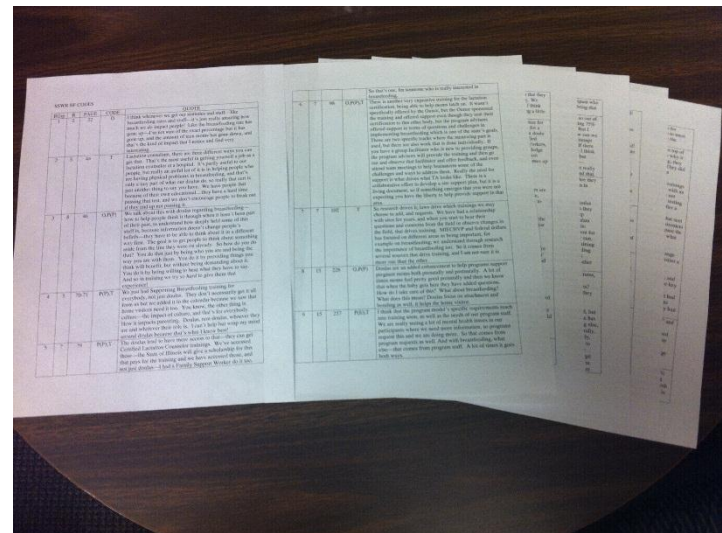
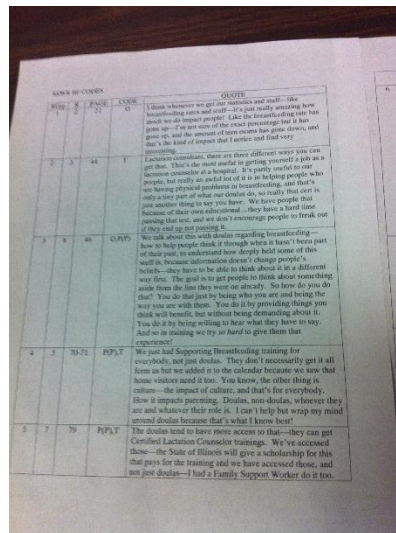
# Methods: Conceptual Framework

- Ecological conceptual framework:



# Methods: Analytic Method

- 1200 pages of transcripts condensed to 8
- Analytic Method
  - Open, thematic coding
  - Content analysis, e.g. assertion analysis (Bellamy, Bledsoe, & Traube, 2006; McMillin, 2012)



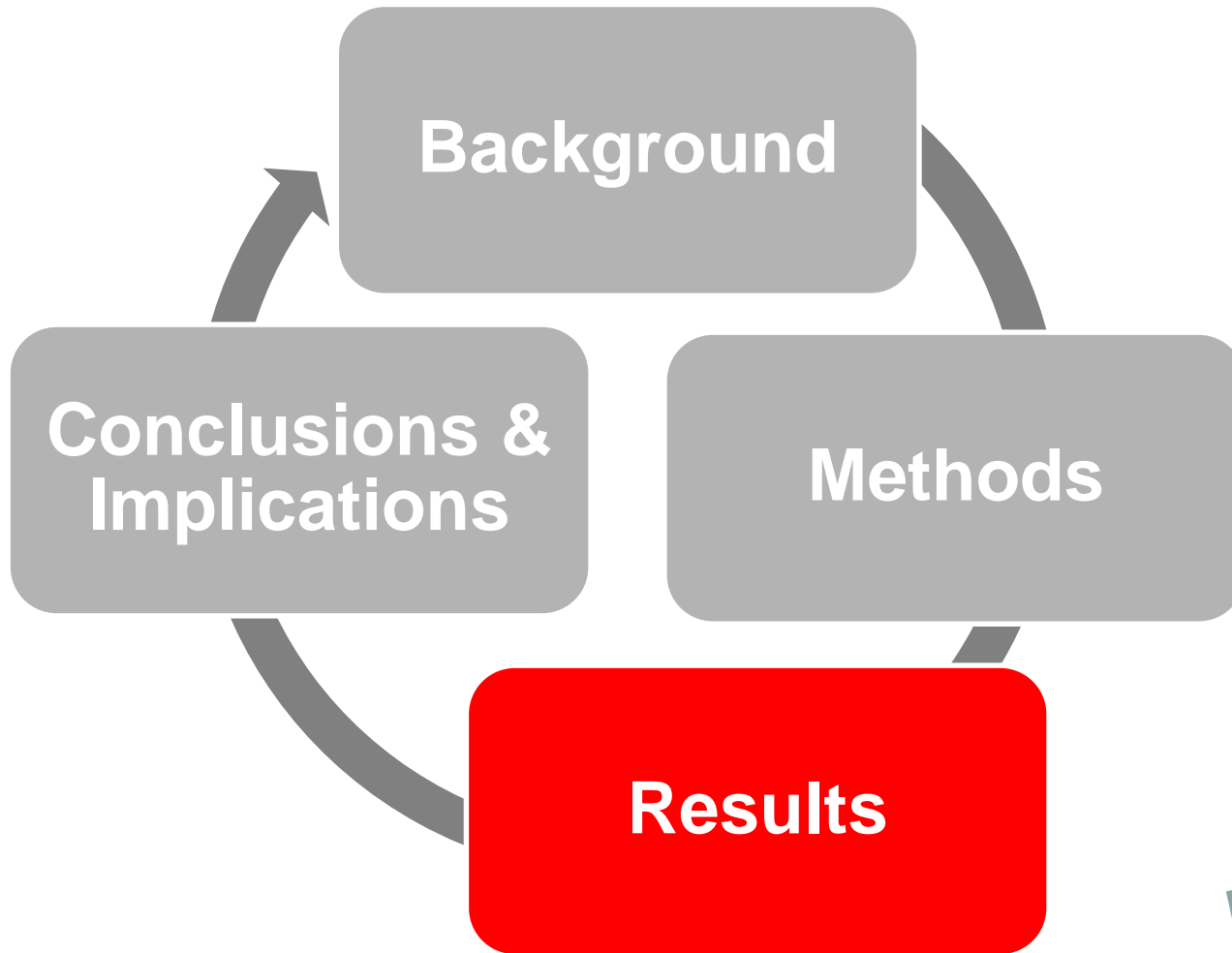
# Methods: Analytic Method

- Logic of inference is NOT a mini-survey!
- Purpose of coding is to extract a message from the evaluations respondents are making of important concepts (Osgood, Saporta, & Nunnally, 1956)
- Percentages/frequencies are offered as a way of keeping track of the flow of respondents' evaluations



**87% OF THE 56% WHO COMPLETED MORE THAN 23% OF THE SURVEY THOUGHT IT WAS A WASTE OF TIME**

# Outline



# Results: References, Codes, & Themes

- 51 breastfeeding references
- Collapsed into 27 reference groups
- From which 3 primary themes emerged
  - Themes were interconnected
  - Subthemes also emerged

# Results: Theme 1

- **How mothers decide to breastfeed is related to the relationship between mother and home visitor**
  - Inter-relation: 75% of training references, 91% of program outcomes were linked to BF decision-making process
- ***RELATIONSHIP* between mother and home visitor in 56% of references to mother's decision to breastfeed**

# Results: Theme 1

- State-level trainer on relationship in the decision-making process:
  - *Regarding breastfeeding—how to help people think it through when it hasn't been part of their past, to understand how deeply held some of this stuff is, because information doesn't change people's beliefs—they have to be able to think about it in a different way first. The goal is to get people to think about something aside from the line they were on already. So how do you do that? You do that just by being who you are and being the way you are with them. You do it by providing things you think will benefit, but without being demanding about it. You do it by being willing to hear what they have to say.*



# Results: Theme 1

- Local, small city, Healthy Families supervisor on relationship in the decision-making process:
  - *Fetal development, the importance of breastfeeding, and labor and delivery, things like that—the Family Support Worker [home visitor] touches on those things but works on the goals the participant has*

## Results: Theme 2

- **The training home visitors received to be able to promote breastfeeding is related to how they use evidence**
- *EVIDENCE* and knowledge supporting home visitor's work in breastfeeding promotion
  - Ability to negotiate larger systems, professionals with more education than the home visitor

## Results: Theme 2

- Local, urban, Parents as Teachers supervisor on training of home visitors about BF
  - *They need to be prepared on breastfeeding and all of that. The hospitals want to shove formula in the baby's mouth, because they don't want the babies screaming and hollering. At [redacted] Hospital they had a little tape on breastfeeding, and we really had to argue with them to let us come in. We're not lactation consultants but we know about breastfeeding... a tape on how to breastfeed for new moms; that's the extent of the education! That's it. And if the baby doesn't latch on, they don't even try — they just snatch the baby and give it formula. They don't even encourage pumping — they just give them formula.*

## Results: Theme 2

- Local, rural, Parents as Teachers supervisor on training of home visitors about BF
  - *They have a pretty high level of professionalism and want to do work that is research-based and supported by best practices. Research in areas such as spanking, discipline, breastfeeding, it is really helpful to have that material that backs you up. The more knowledge the staff have the better prepared they are to deal with families.*

## Results: Theme 3

- **The breastfeeding outcomes home visiting programs were able to achieve is related to both relationship and evidence**
- *EVIDENCE* that programs were contributing to population-level change alongside
- *RELATIONSHIPS* with participants and with stakeholders across levels made outcomes challenging
  - Achieving outcomes while respecting self-determination

# Results: Theme 3

- State Parents as Teachers trainer on outcomes:
  - *I think whenever we get our statistics and stuff—like breastfeeding rates and stuff—it's just really amazing how much we do impact people! Like the breastfeeding rate has gone up—I'm not sure of the exact percentage but it has gone up... and that's the kind of impact that I notice and find very interesting.*

# Results: Theme 3

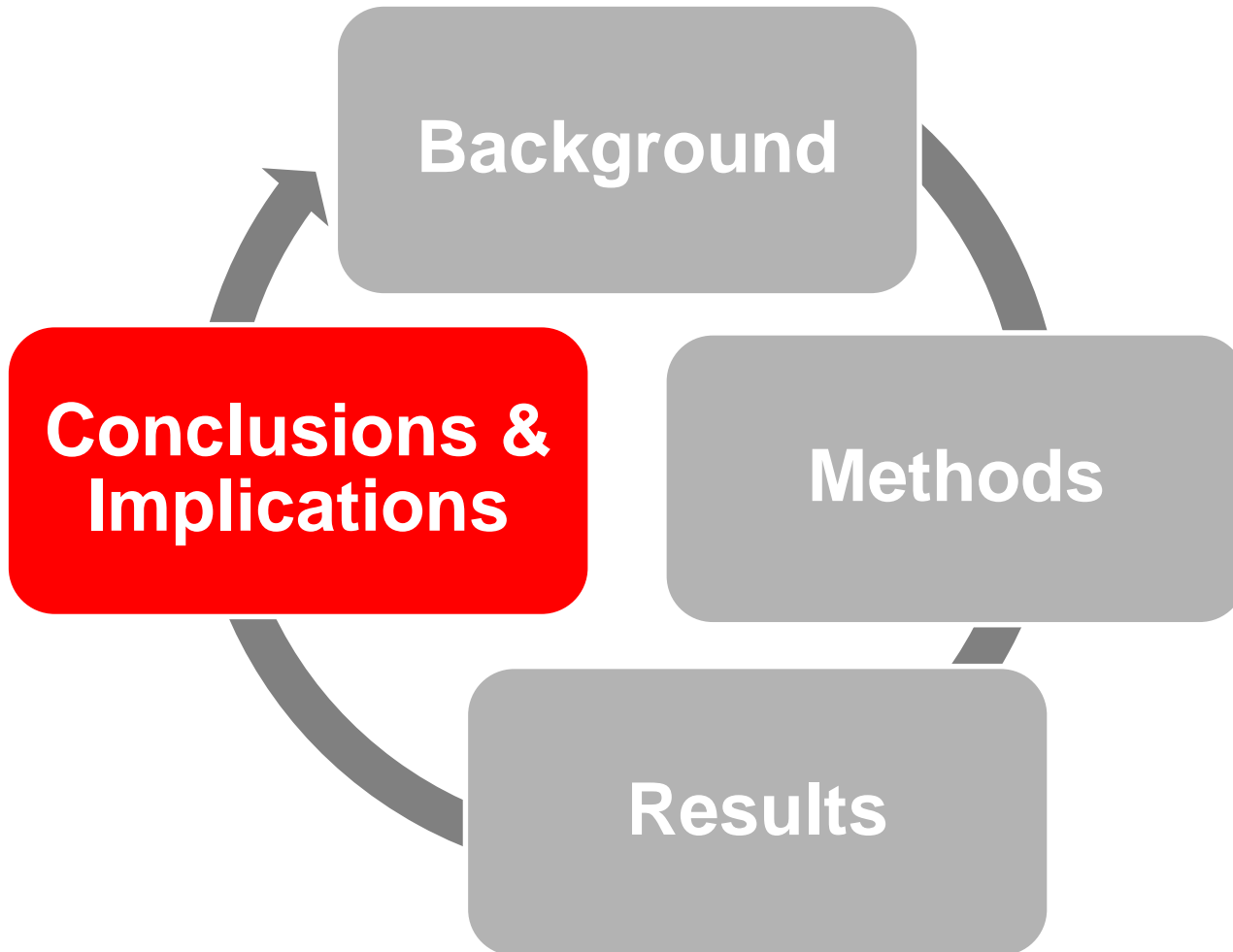
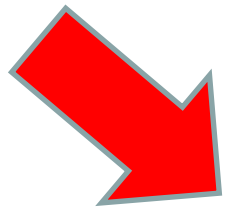
- Local, suburban, Healthy Families program supervisor on outcomes:
  - *I think our value here is something is wrong if they don't want to breastfeed. I think that if you come from a different culture where most women don't breastfeed—I'm trying to show her [the agency director] that we have to go with what is best for that parent. We have to use open-ended questions to get the information from the girl and also, we have to advocate what is best for her, along with giving her the information. Because when it comes down to it, she's going to be the one to make the decision and we have to go with that.*

# Results: Theme 3

- Local, suburban, Healthy Families program supervisor on outcomes:
  - *You know, DHS is looking to make sure that we are meeting certain outcomes, like breastfeeding. Breastfeeding is big, how many people are breastfeeding per quarter...So each person is looking for something different, and that can be a challenge, but my biggest challenge was to learn what is DHS? First of all what is Healthy Families? Then what is DHS, what is [the agency sponsoring home visiting program], who are my other stakeholders? That was my biggest challenge. They each want something different.*



# Outline



# Conclusions & Implications

- Relationship is crucial at all levels
  - Between participant and home visitor
  - Between home visitor and supervisor
  - Between program staff (both home visitors and their supervisors) and trainers
  - **AND BETWEEN SUPERVISORS AND AGENCY DIRECTORS/STAKEHOLDERS**
- Parallel process relationships
  - Not literally (no one is breastfeeding but the participant!)
  - But socially, mirroring and modeling what good interaction feels like and paying it forward

# Conclusions & Implications

- Evidence is also important
  - Home visitors are generally educated at bachelor's-level or below (associate's degree or some college)
    - They appreciate the legitimacy good outcomes add to their work
    - They appreciate how training gives them scientific knowledge to share with mothers

# Conclusions & Implications

- Next steps, needs for future research
  - Developing, improving the implementation science of open-ended, relationship-based social support interventions
    - Cannot easily be manualized
    - May lose much if they are manualized
      - Concern that home visiting is increasingly nurse-focused, medicalized, e.g., hearing/vision testing
    - But need to stay cutting edge, incorporate latest child development, neuroscience data

Thank you!



**Steve McMillin**  
**mcmillins@slu.edu**  
**(314) 977-3322**