
8-2020

Psychosocial influences on breastfeeding practices in Sokoto, Kebbi and Zamfara States—Slide deck

Breakthrough RESEARCH

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Psychosocial influences on breastfeeding practices in Sokoto, Kebbi and Zamfara States

Breakthrough RESEARCH Nigeria
Behavioral Sentinel Surveillance (BSS)
Key Baseline Results

Webinar Series – June 2020
Breastfeeding



Webinar overview

- About Breakthrough RESEARCH
- What is the Behavioral Sentinel Surveillance (BSS) survey?
- Focus on breastfeeding practices
 - How did formative research inform the BSS survey?
 - New ideational metrics
 - Key BSS findings
 - SBC program implications
- Future work

About Breakthrough RESEARCH

Breakthrough RESEARCH

- USAID's flagship project for social and behavior change (SBC) research and evaluation
- Five-year project: August 2017 to July 2022
- B-R Nigeria activity start: January 2019
B-R Nigeria office opened: September 2019
- Close collaboration with sister project Breakthrough ACTION and other IPs



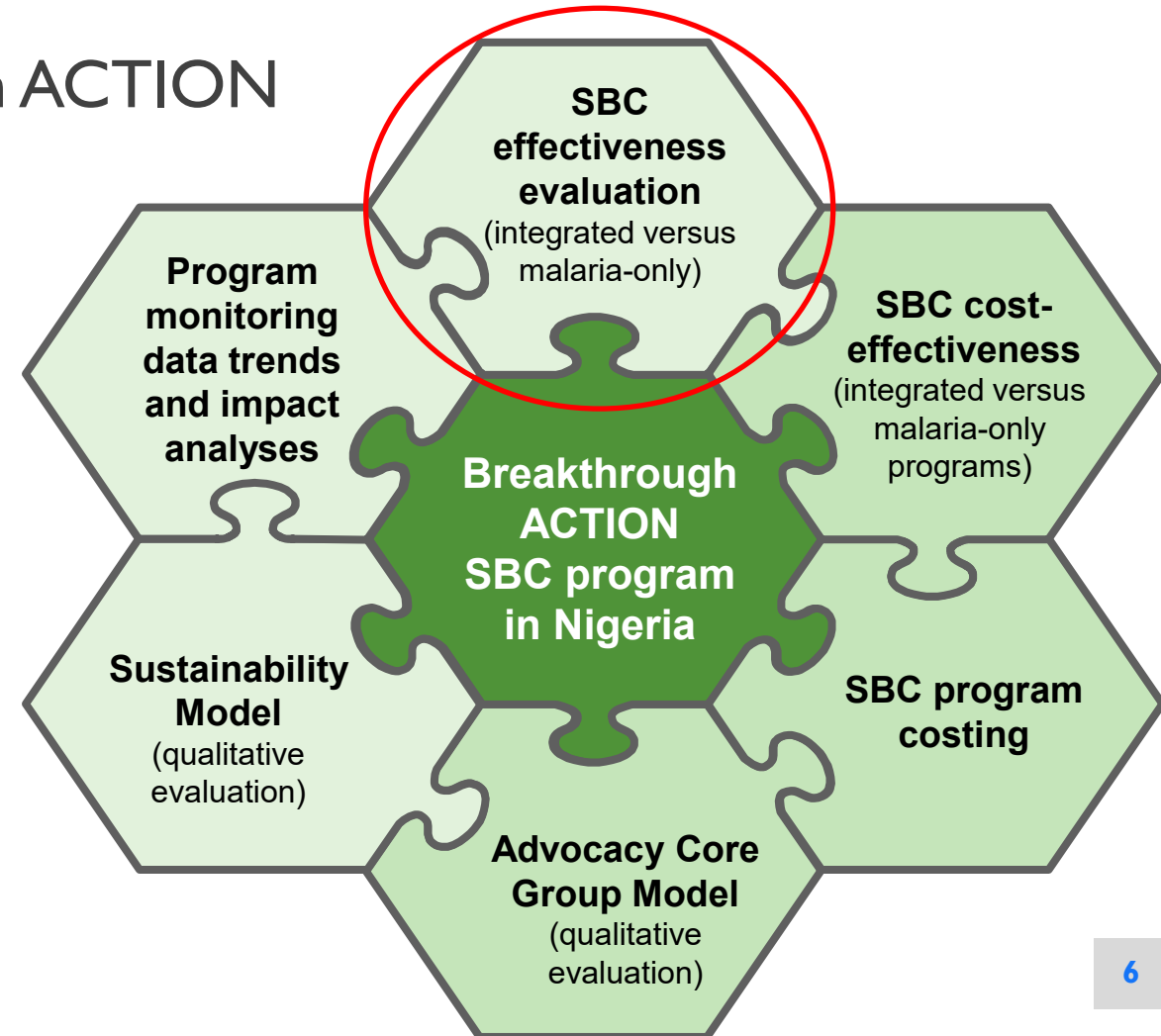
Consortium



Breakthrough RESEARCH in Nigeria

Breakthrough RESEARCH will embed rigorous research within a state-of-the-art SBC program in Nigeria led by Breakthrough ACTION

- **Qualitative evaluations** of specific SBC program components, e.g. Sustainability Model
- **Effectiveness evaluation** of integrated versus malaria-only SBC programs, e.g. **Behavioral Sentinel Surveillance (BSS) Survey**
- **Costing study and cost-effectiveness evaluation** of integrated versus malaria-only SBC programs **using BSS results** and program cost data



Breakthrough ACTION in Nigeria

Overall Result

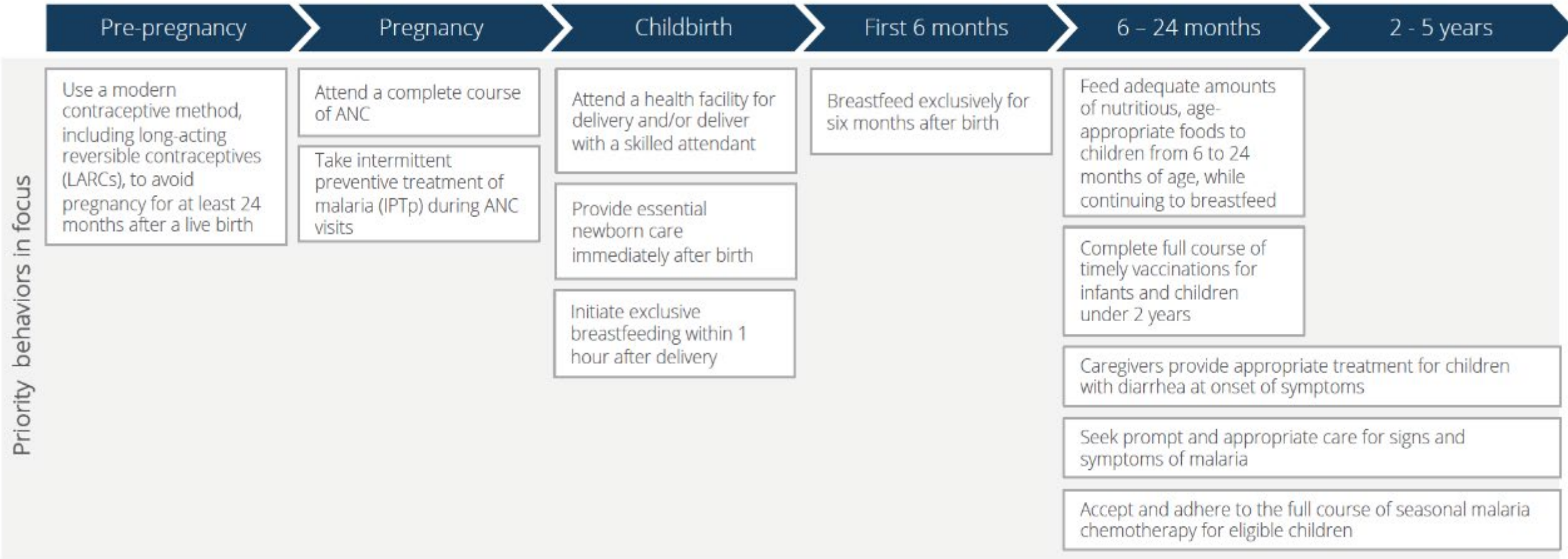
- Increase 17 priority health behaviors in the areas of maternal, newborn, and child health plus nutrition (MNCH+N), family planning and malaria

Intermediate Results

- Determinants of priority health behaviors increased
- SBC coordination and collaboration among USG partners improved
- SBC capacity of public sector entities improved

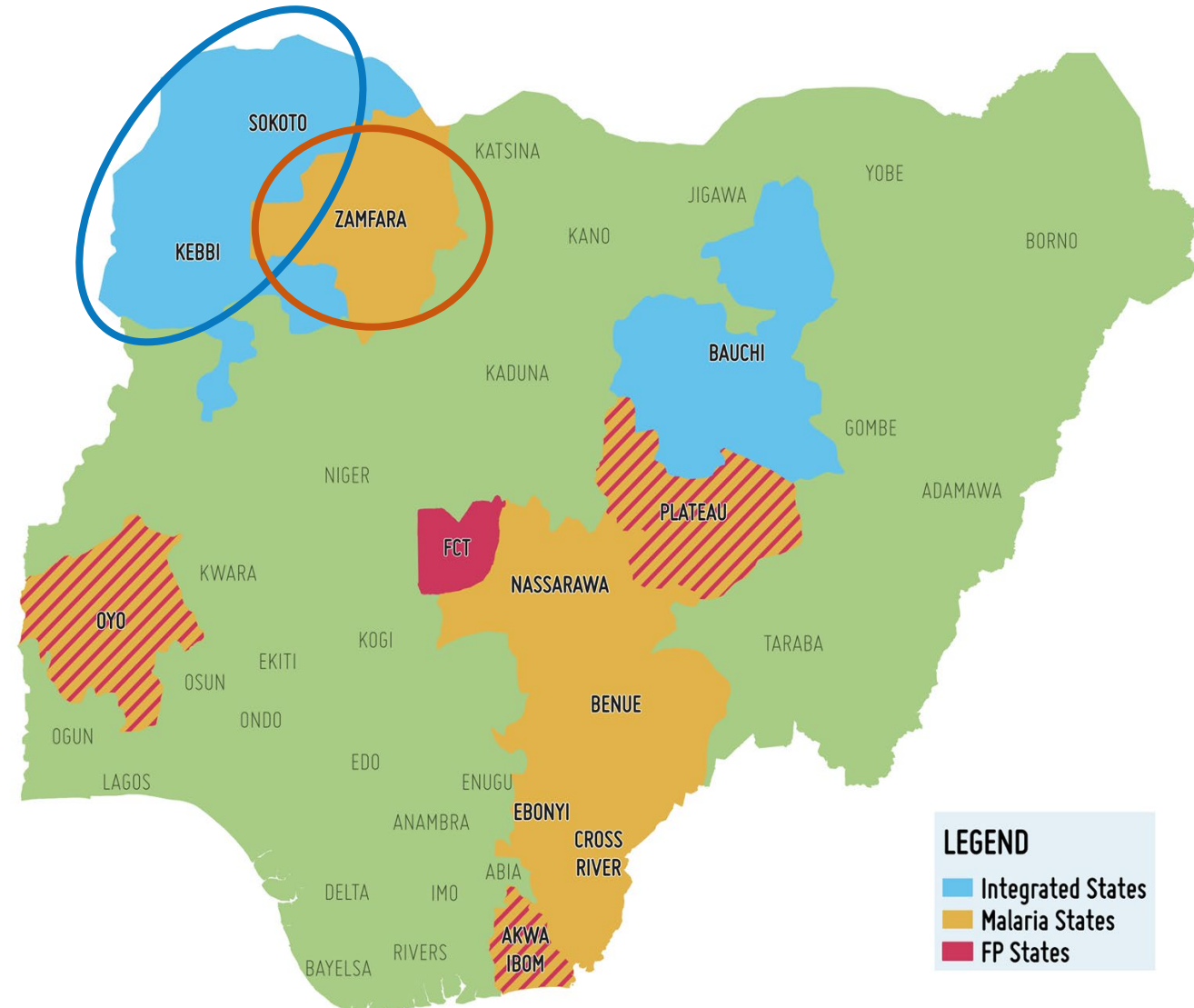
Priority behaviors targeted by integrated SBC

Milestones



Where do we work in Nigeria?

- Breakthrough ACTION implements SBC programs in 11 States and FCT
- Integrated SBC for malaria, family planning and MNCH+N in 3 states; vertical SBC programs in other states
- Breakthrough RESEARCH will implement the effectiveness study in Kebbi and Sokoto (integrated) and Zamfara (malaria-only)



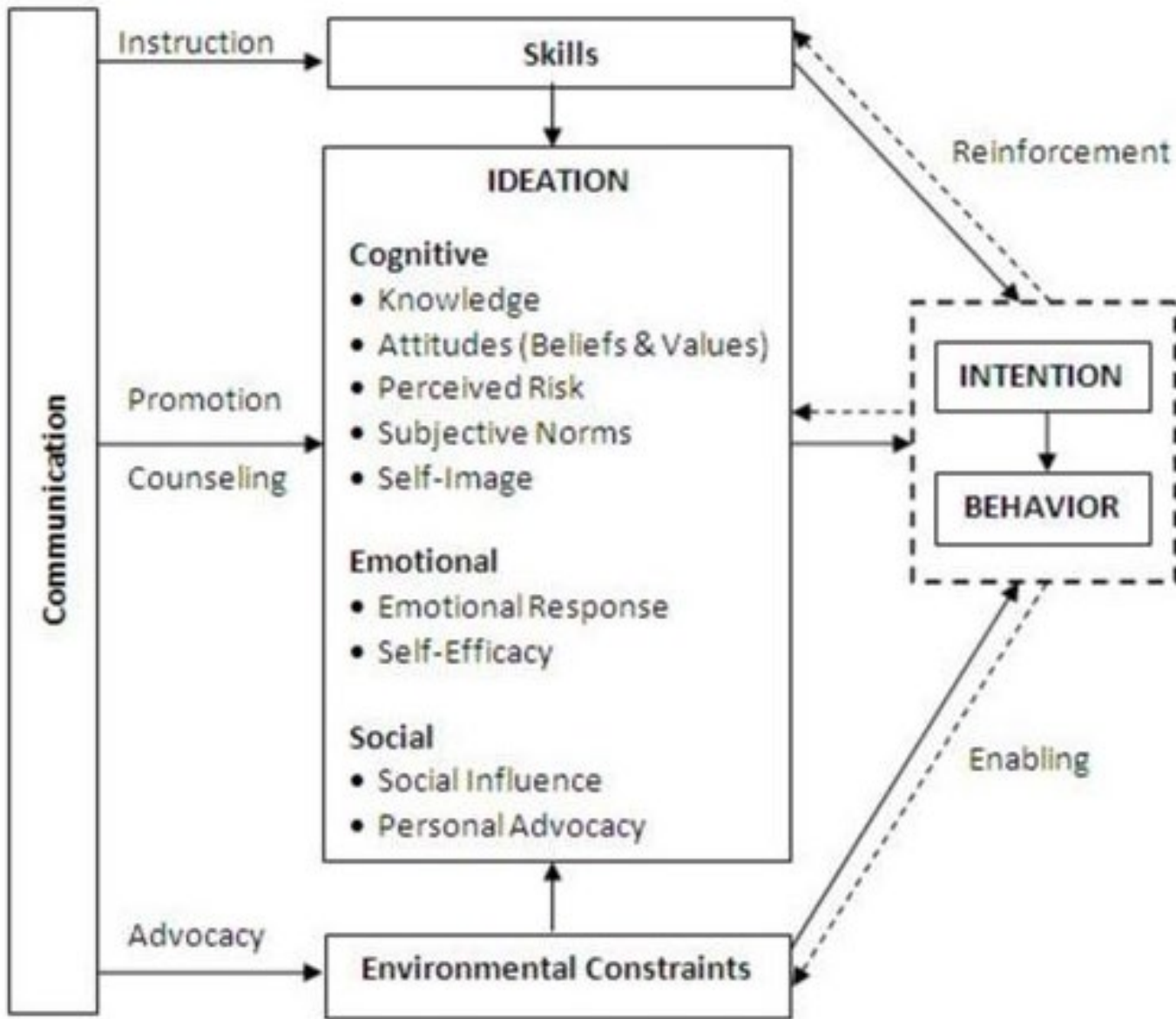
What is the Behavioral Sentinel Surveillance (BSS) Survey?

BSS objectives

- Assess the effectiveness of integrated versus malaria-only SBC approaches on malaria, family planning and MNCH+N behaviors and ideations
- Measure changes in key behaviors and ideations across malaria, family planning, and MNCH+N at baseline, midline and endline periods
- Contribute to the overall cost-effectiveness analysis of integrated versus malaria-only SBC approaches

What does the BSS measure?

- BSS tracks a cohort of women and their newborns during their 1,000 day window of opportunity over the course of the SBC program cycle
- BSS measures priority behavioral outcomes including:
 - Malaria* (LLIN use, IPTp, fever treatment/diagnosis); *family planning* (modern contraceptive use, postpartum family planning); *MNCH+N* (ANC, facility-based delivery, newborn and postpartum care, routine immunization, breastfeeding/nutrition, childhood illness care-seeking and treatment)
- BSS measures psychosocial influences or ideations – cognitive, emotional, social – theorized as intermediate determinants of behavioral outcomes



Kincaid's Theory of Strategic Communication and Behavior Change

Why is the BSS important?

- Generate robust evidence on behaviors and ideations to inform SBC program adaption and scale-up over the full program period
- Develop and collect new MNCH+N ideational metrics to inform both local programs and the global SBC community
- Quantify new ideational metrics for testing behavioral change theories
- Identify the most important ideations, or behavioral determinants, that SBC programs must address to improve health outcomes

BSS design

Study population

Pregnant women and women with a child under 2 years living within Breakthrough ACTION program areas in the 3 states
(not representative at state level)

Study design

Cross-sectional and cohort components
Quasi-experimental and dose-response designs

Sample size

3,032 pregnant women
3,043 women with a child under 2 years

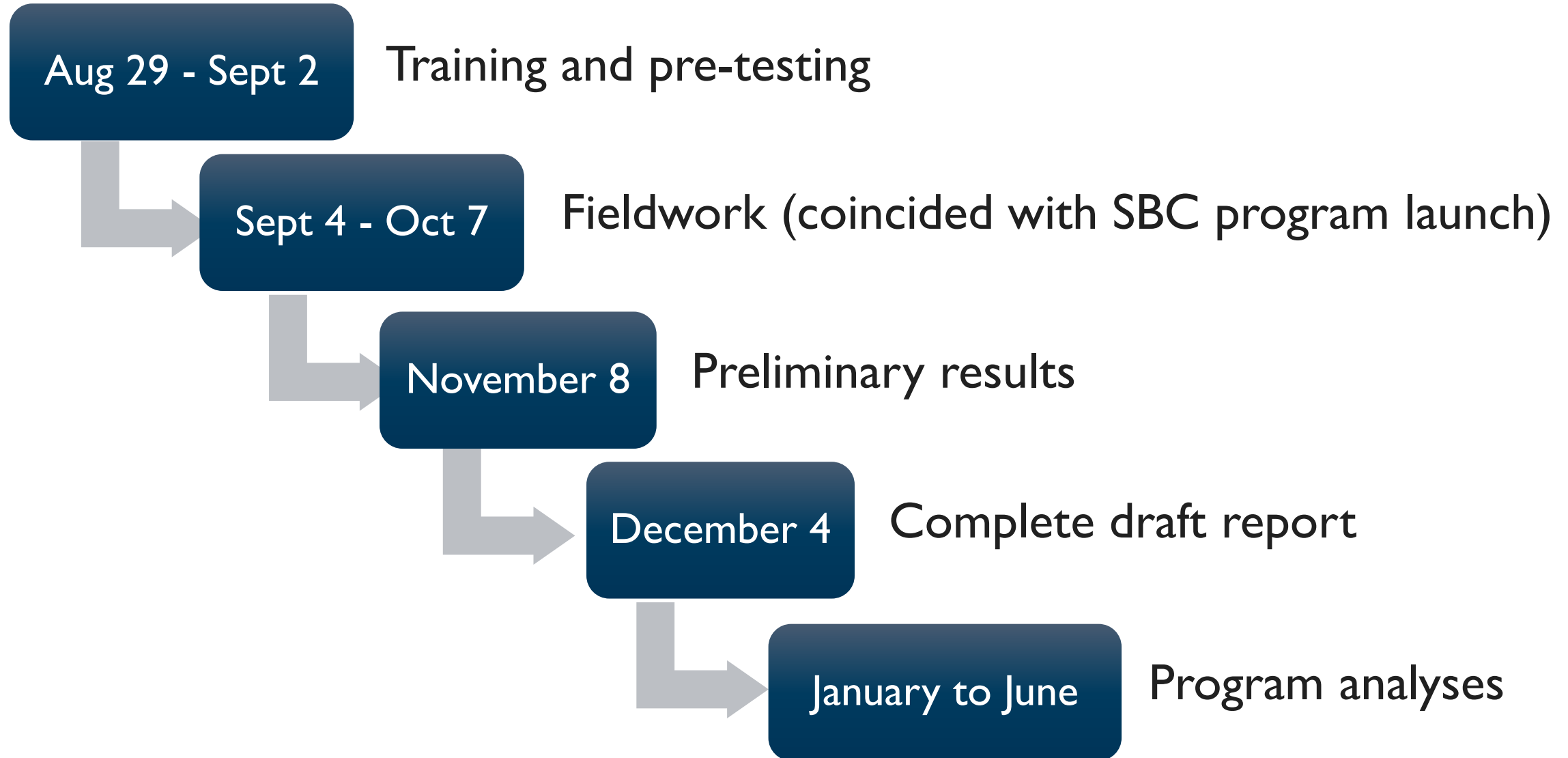
Sampling method

108 wards across three states; census of pregnant women and random selection of women with children under 2 years

Data analysis

Predicted probabilities of outcomes were derived using mixed-effects logistic regression models adjusted for ideational and sociodemographic variables: wealth, age, education and employment (respondent and spouse)

BSS timeline



BASELINE TECHNICAL REPORT

Behavioral Sentinel Surveillance Survey in Nigeria



JUNE 2020



Highlights

- Describes theory, rationale and study methods
- Summarizes results for ~500 questions by state (Kebbi, Sokoto and Zamfara)
- Estimates standard DHS indicators by state across malaria, family planning and MNCH+N
- Presents new ideational metrics by state across malaria, family planning and MNCH+N

Breastfeeding:

Formative work and literature reviews

How did formative research inform the BSS?

- Breakthrough ACTION conducted formative research and literature reviews to inform SBC programs in Nigeria
- Breakthrough RESEARCH used this to inform BSS ideational questions including:
 - Nearly all children in northwestern Nigeria were ever breastfed, but far fewer received early and exclusive breastfeeding
 - Colostrum is viewed as not pure and potentially harmful to the infant
 - Water often given to infants, early introduction of solid foods and other cultural practices
 - Factors associated with higher rates of early and exclusive breastfeeding in this region include wealth, maternal education, ANC 4+ visits, facility delivery, longer birth interval, young infant age, and urban residence

Breastfeeding:

New ideational metrics

Innovative MNCH+N ideational metrics

- Limited ideational research for MNCH+N in contrast to FP and malaria
- Need to develop new MNCH+N ideational questions for BSS
- New metrics developed using theory-based design, and by adapting ideational questions used in other settings or other health areas
- BSS ideational questions were reviewed by B-A, USAID and other experts
- BSS asked a limited set of ideational questions within each health area

Breastfeeding ideational metrics

Adapted LSHTM research on diarrhea control ideations; used theory-based design and applied questions from other health areas, e.g. malaria, vaccination

Dimension	Domain	Likert-scale statement or question
Cognitive	Knowledge	In your opinion, what is the ideal age to begin introducing complementary food in addition to breastmilk?
	Beliefs about breastfeeding	In your opinion, what are the benefits for mothers who exclusively breastfeed for the first 6 months of life?
		What can a mother do to protect the health of hew newborn baby immediately after delivery?
		Breastmilk contains all the nutrients a baby needs during the first 6 months of his/her life
	A mother's breastmilk after birth is bad milk	
Emotional	Self-efficacy	How confident are you to start a conversation with your husband about breastfeeding your child?
		How confident are you that you could exclusively breastfeed your child for the first 6 months of life?
Social	Social influence	Besides yourself, who else may influence your decision about whether to breastfeed or not?
	Norms (subjective)	Most women in my community only give infants breastmilk, and no water, for the first 6 months after birth
	Norms (injunctive)	It is important for mothers to only give their child breastmilk for the first 6 months after birth
Intentions	Intentions	How likely are you to exclusively breastfeed your newborn for the first 6 months of life, that is, only give your infant breastmilk, not even water, for the first 6 months after birth?

Main reference:
Greenland CE, Unpacking the black box: theory-based design and evaluation of a multiple behavior change intervention to control diarrheal diseases. LSHTM PhD thesis, 2017.

Breastfeeding:

Key findings

Key findings by SBC program priorities

1. Behavioral patterns

How frequently do respondents practice the promoted health behaviors? What are the key behavioral patterns by geography or sociodemographic characteristics?

2. Knowledge and Beliefs

Are respondents aware of promoted health behaviors, e.g. how to prevent disease? Are certain beliefs held by respondents that could impede progress?

3. Barriers

How do respondents view health services in their communities? What are the main reasons for choosing certain treatment locations or for not using services at all?

4. Social Influence and Decision-Making

How do health decisions get made in households? Who mainly influences women's healthcare practices?

5. Ideational Relationships

How important are the individual components of behavioral change frameworks? What ideations should SBC programs target to maximize impact?

6. SBC Program Potential

What is the potential impact of SBC programs to spur behavior change? How does eliminating barriers enhance uptake of behaviors?

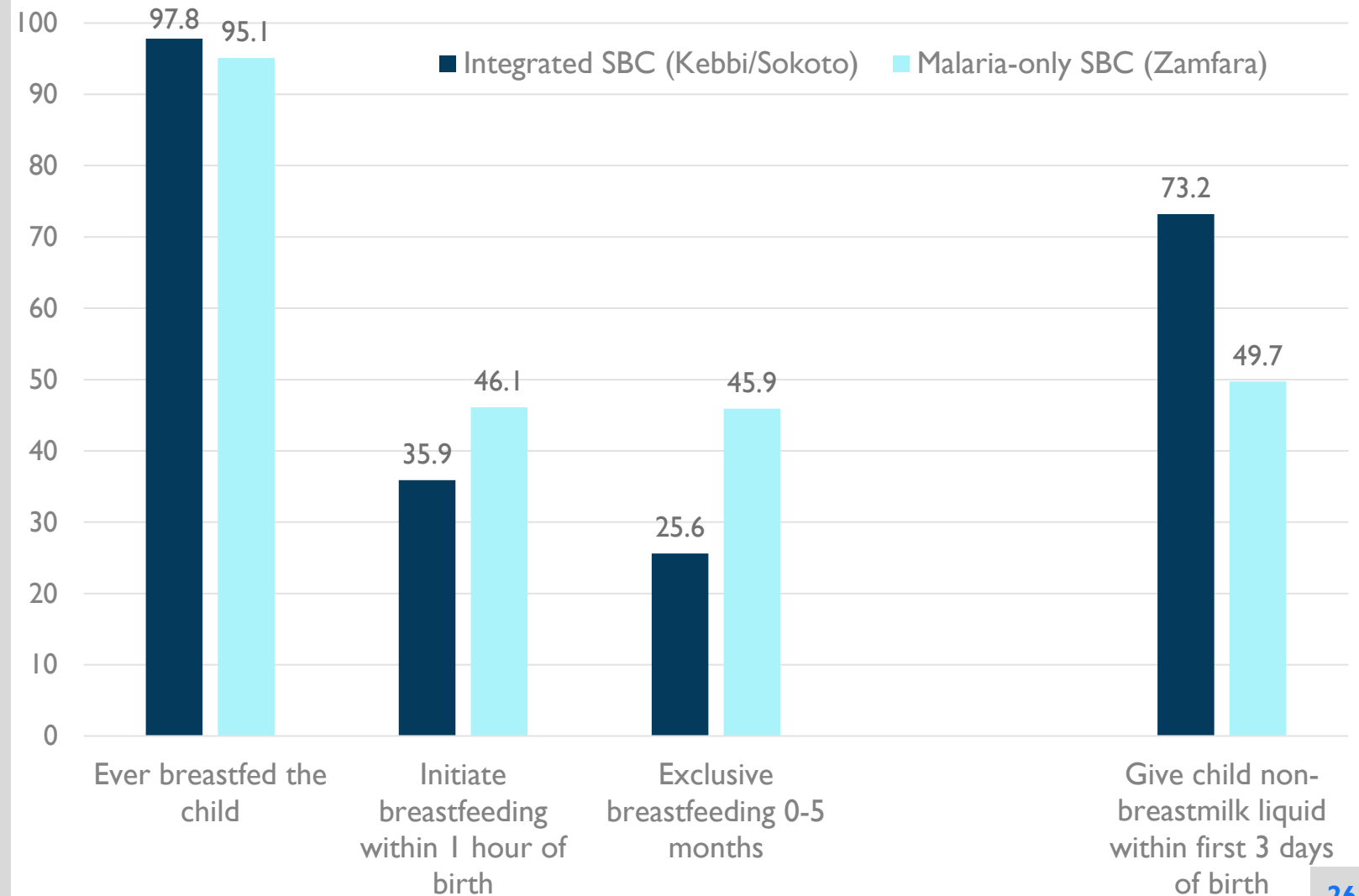
I. Behavioral patterns

While nearly all women ever breastfed their child ...

...less than half (42%) initiated early breastfeeding within 1 hour of birth

... even fewer infants (26%) were exclusively breastfed for the first 6 months of life

This is largely due to the widespread practice of giving non-breastmilk liquids in the first 3 days of birth



Early initiation of breastfeeding (<1 hour)

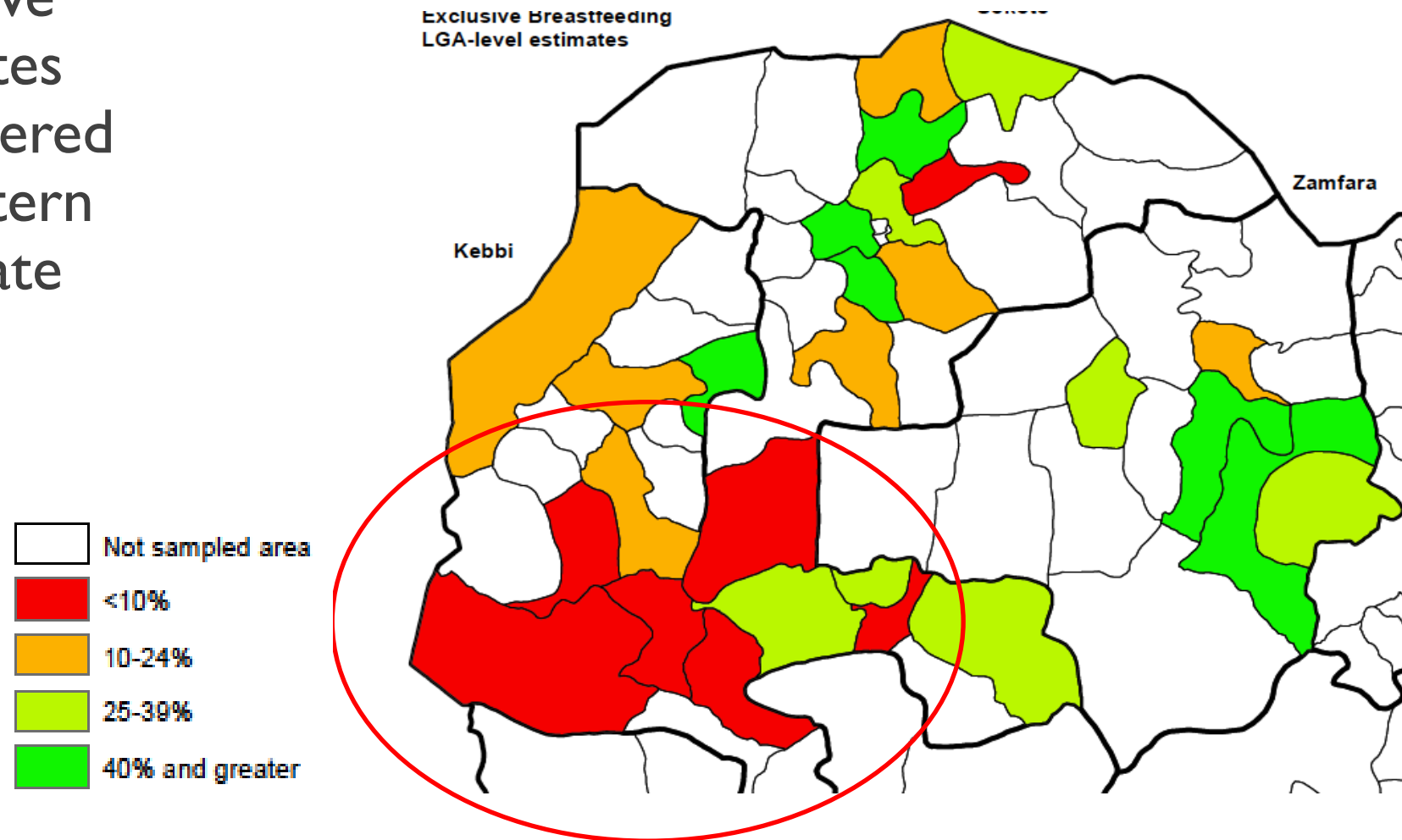
Women 15-49 years with a child under two years who initiated breastfeeding within 1 hour of birth for their last-born child	<i>Kebbi</i>		<i>Sokoto</i>		Malaria-Only (Zamfara)		Integrated (Kebbi/Sokoto)	
	%	<i>N</i>	%	<i>N</i>	%	N	%	N
Total	41.6	892	31.6	1,078	46.1	1,069	35.9	1,971
Household wealth quintile								
Lowest	32.0	264	36.9	341	46.9	111	35.0	606
Highest	46.1	166	32.7	153	56.5	304	39.6	318
Maternal education, highest level attended								
None	40.2	675	28.4	855	42.5	698	33.2	1,530
Secondary or higher	47.8	95	46.4	60	58.4	180	47.3	155

Exclusive breastfeeding 0-5 months

Last-born children 0-5 months exclusively breastfed (currently breastfed with no solid or semi-solid foods in past 24 hours and no non-breastmilk liquids in 3 days after birth)	<i>Kebbi</i>		<i>Sokoto</i>		Malaria-Only (Zamfara)		Integrated (Kebbi/Sokoto)	
	%	<i>N</i>	%	<i>N</i>	%	N	%	N
Total	20.3	212	29.3	276	45.9	233	25.6	488
Household wealth quintile								
Lowest	14.6	58	27.4	96	(..)	21	23.2	154
Highest	23.3	48	28.0	39	60.9	78	25.6	87
Maternal education, highest level attended								
None	17.1	156	26.4	236	44.4	159	22.9	392
Secondary or higher	(..)	24	(..)	14	62.8	42	44.4	38

Clustered low exclusive breastfeeding rates

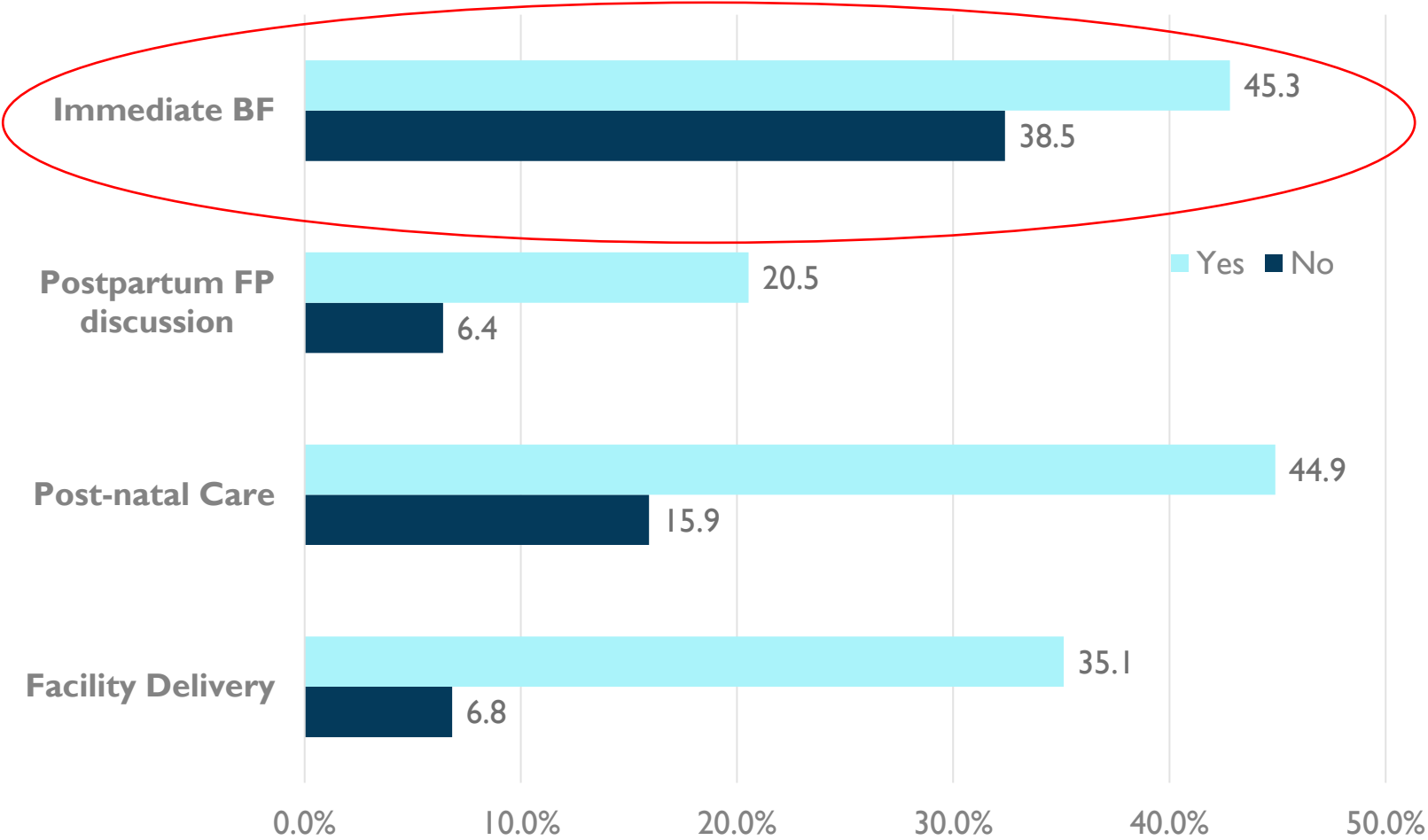
Very low exclusive breastfeeding rates (<10%) are clustered in the southwestern part of Kebbi State



Is ANC a gateway for downstream MNCH+N?

Women who attend ANC at least one time are more likely to practice other MNCH+N behaviors than non-ANC users

ANC as a “gateway moment” for other MNCH+N outcomes –
how to focus SBC programs on this linkage?



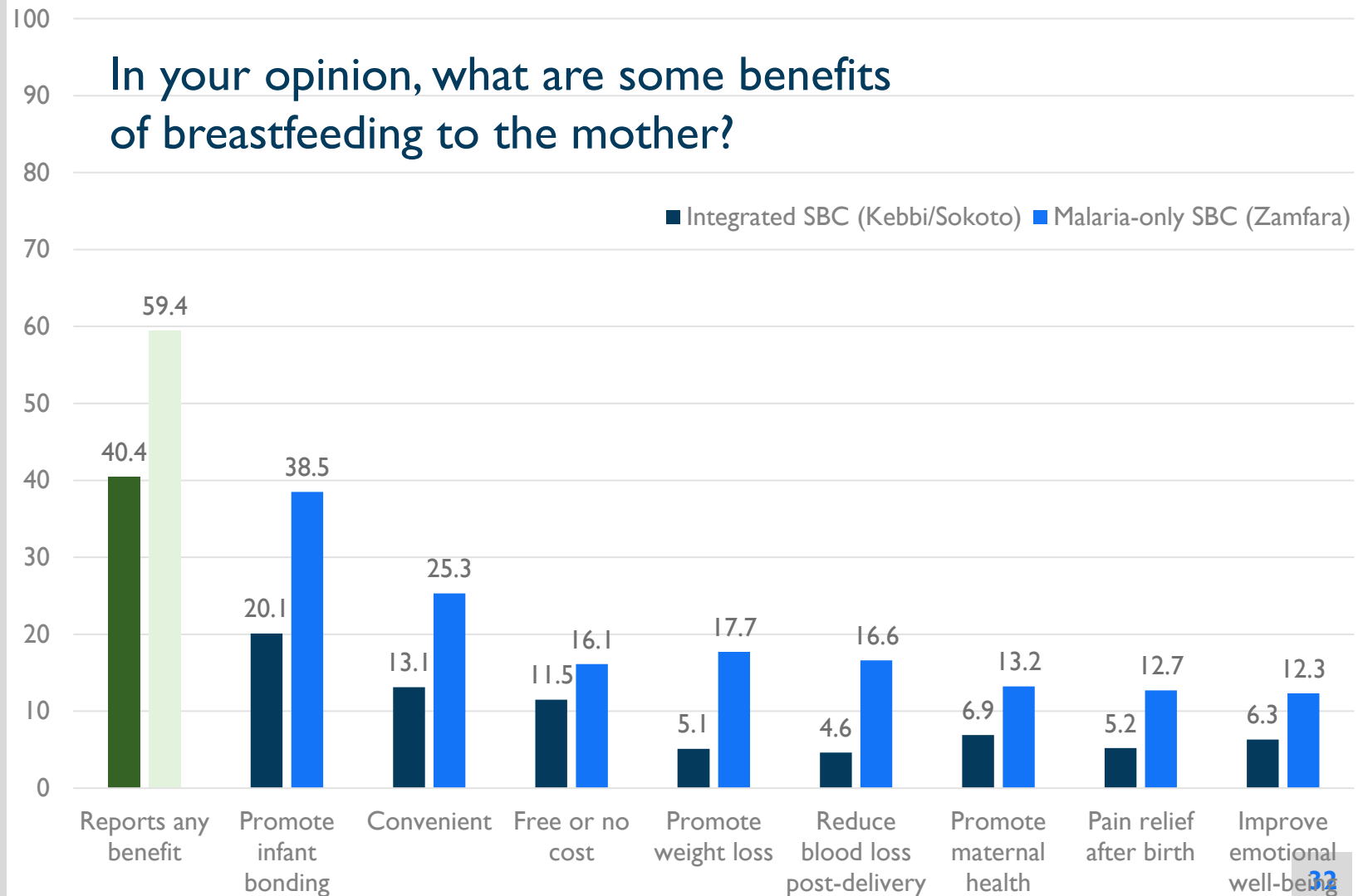
Differences in likelihood are statistically significant at <0.05 level in mixed-effects logistic regression analysis adjusted for ideational and sociodemographic variables, e.g. wealth, age, employment and education (respondent and spouse)

2. Knowledge and Beliefs

Low knowledge about breastfeeding benefits

Nearly half (48%) of women reported no benefit or didn't know any breastfeeding benefits for the mother

Higher knowledge of any benefits in malaria-only (Zamfara) than in integrated SBC areas (Kebbi/Sokoto)

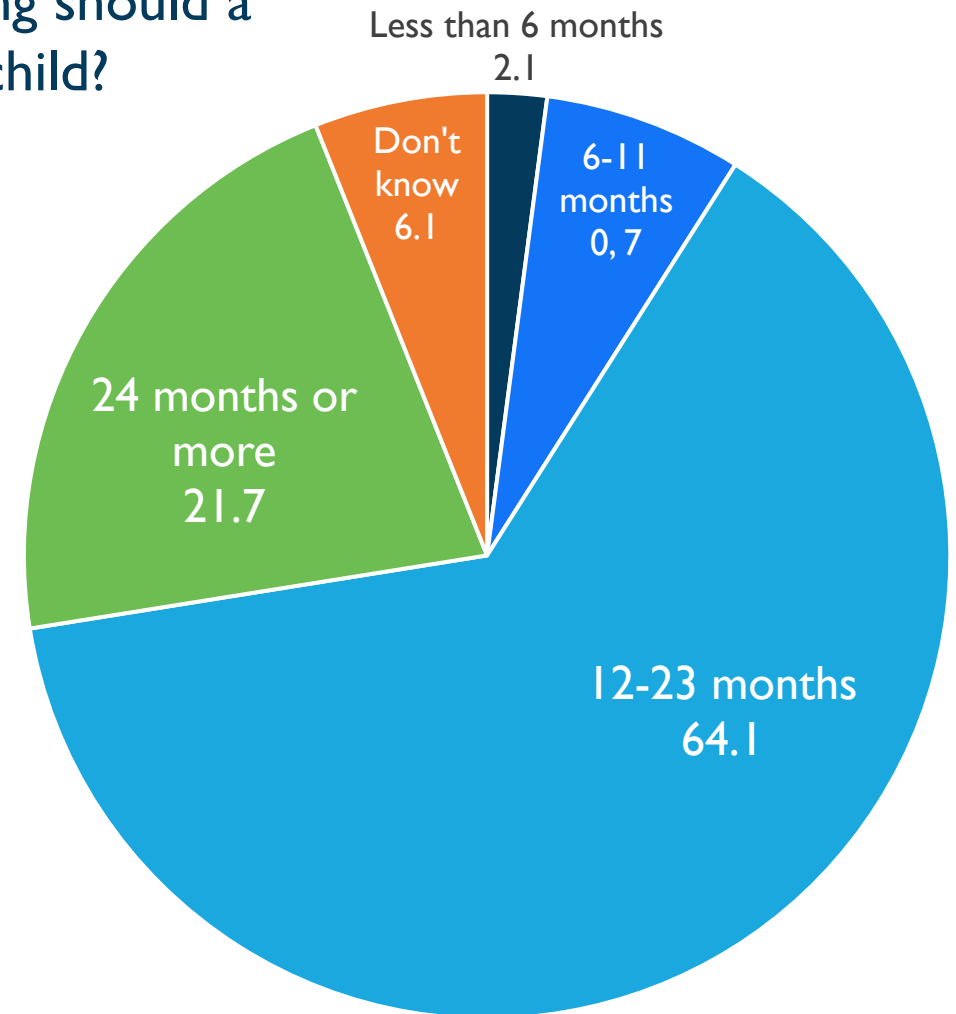


Most believe women should breastfeed 12-23 months

Almost two-thirds (64%) of respondents think women should breastfeed their child for 12-23 months

Only 1 in 5 (22%) believe women should breastfeed their child for 24+ months as recommended

In your opinion, how long should a woman breastfeed her child?

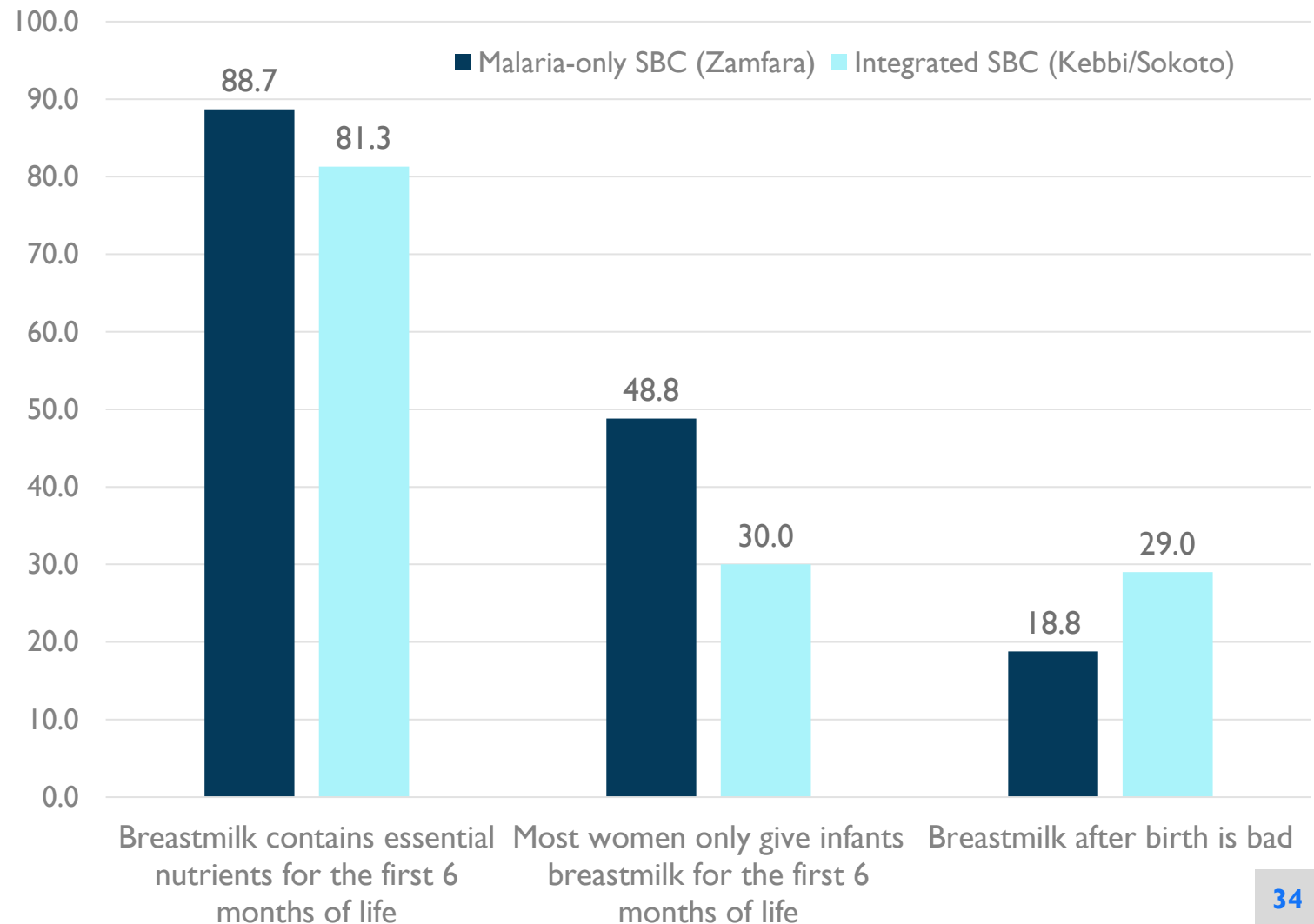


Breastmilk is nutritious, but colostrum is bad

While most (86%) women believe breastmilk contains essential nutrients for the first 6 months of life ...

...about 1 of 4 (23%) believe breastmilk after birth is bad milk

And only 2 of 5 (41%) believe the norm is that women in their community exclusively breastfeed for the first 6 months of life



3. Barriers

Personal opposition to exclusive breastfeeding

Among women who did not exclusively breastfeed their infant

Nearly half cited their **own opposition** as the reason for not doing so

Nearly one-third cited **spousal opposition** as the reason for not doing so

Reasons for not exclusively breastfeeding among women who did not do so (n=1,903)

Respondent opposition	40.0
Spousal opposition	33.5
Not necessary	21.2
Inadequate milk	15.8
Fatalism ("It's Up to God")	12.4
Religious or community leader opposition	3.8
Painful breastfeeding	1.0

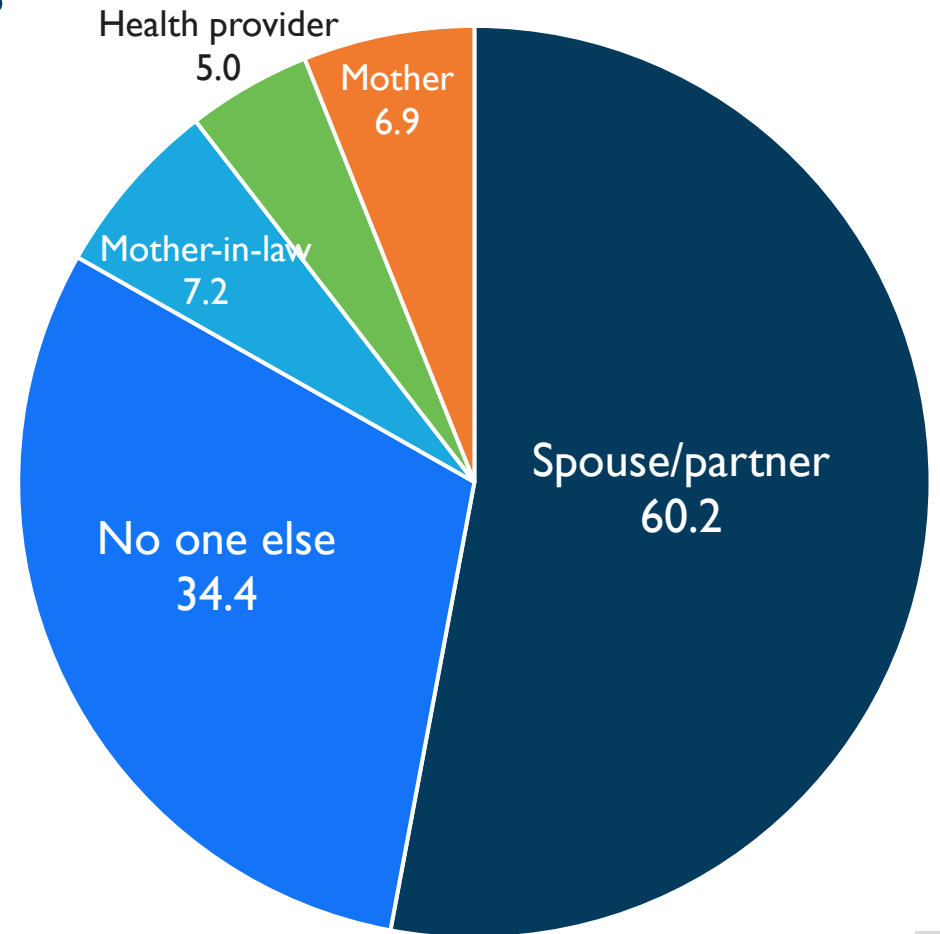
4. Social influence and decision-making

Spouses are common influencers of decisions...

Most respondents (60%) cite spouse/partner as influencers of breastfeeding decisions

However, regression analyses found **no significant association of spousal influence** on early or exclusive breastfeeding practices

Besides yourself, who else may influence your decision to breastfeed your child?



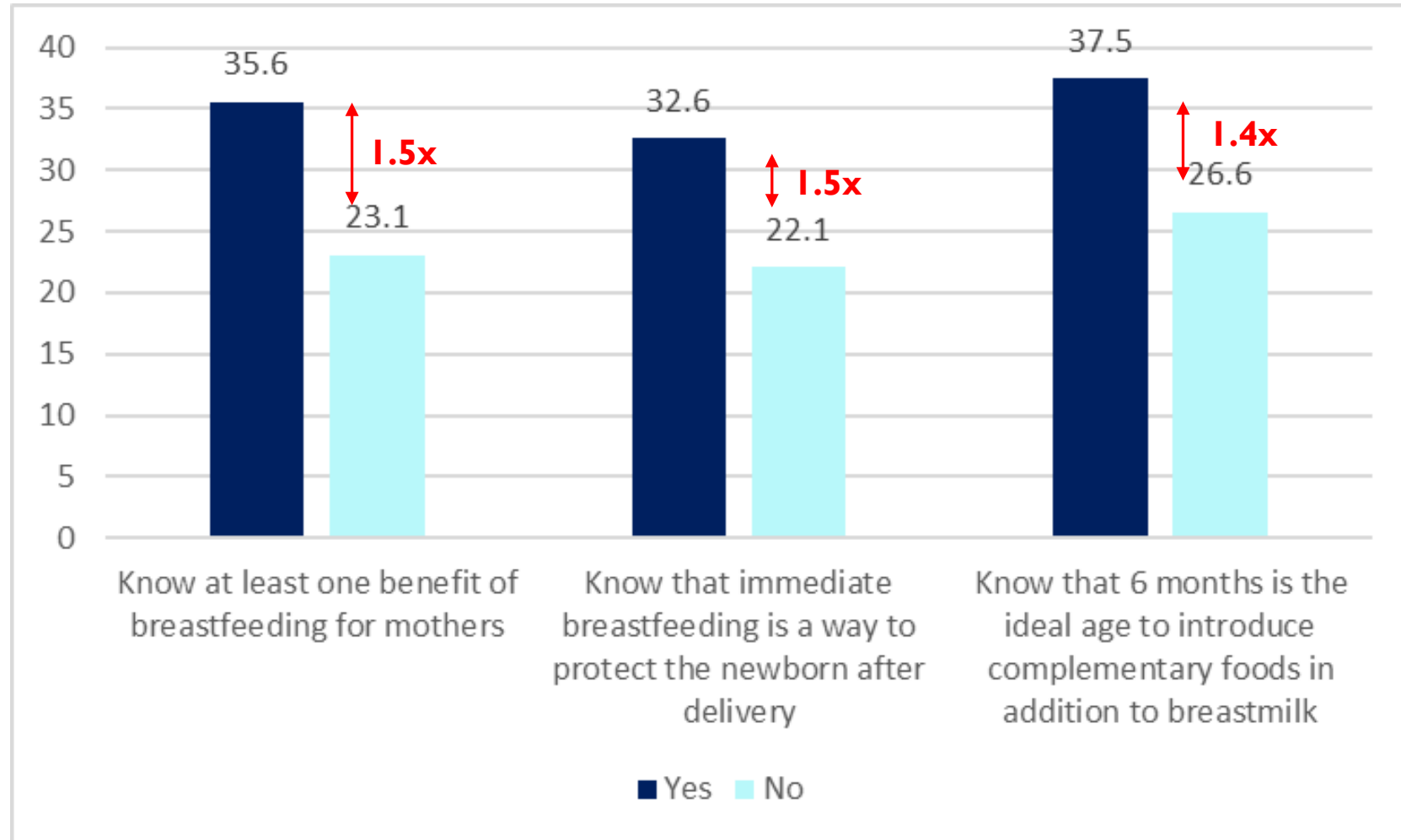
5. Ideational Relationships

Knowledge is key for exclusive breastfeeding ...

Women who knew at least one breastfeeding benefit were **1.5x** as likely to exclusively breastfeed

Women who knew that immediate breastfeeding protects a newborn were **1.4x** as likely to exclusively breastfeed

Women who knew that 6 months is the ideal age to introduce complementary foods with breastmilk were **1.4x** as likely to exclusively breastfeed



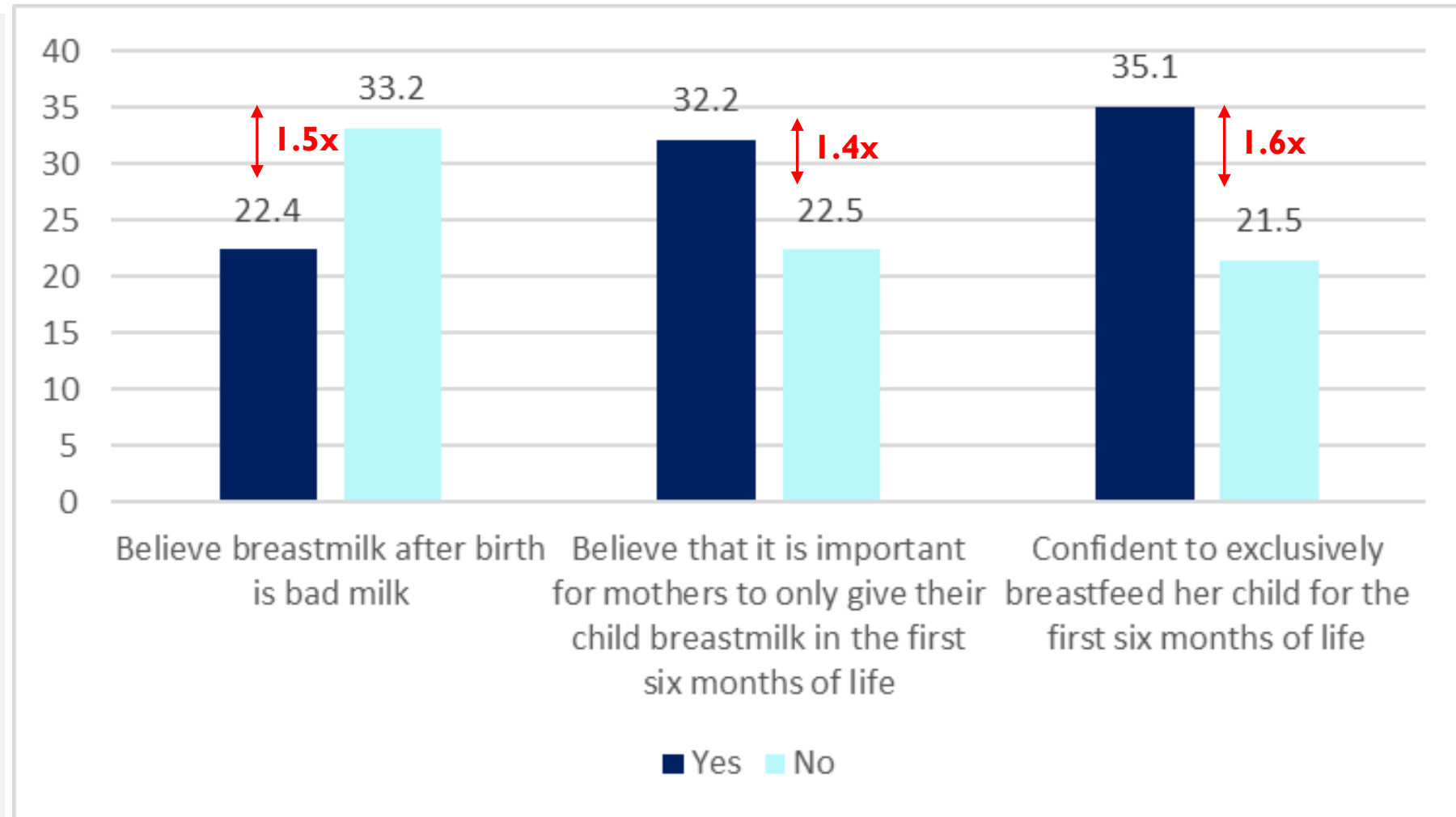
Differences in likelihood are statistically significant at <0.05 level in mixed-effects logistic regression analysis adjusted for ideational and sociodemographic variables, e.g. wealth, age, employment and education (respondent and spouse)

... self-efficacy and beliefs are also important

Beliefs: Women who did not believe that breastmilk after birth is bad were **1.5x** more likely to exclusively breastfeed

Beliefs: Women who believe it is important to exclusively breastfeed were **1.4x** more likely to do so

Self-efficacy: Women who had confidence to exclusively breastfeed were **1.6x** more likely to do so



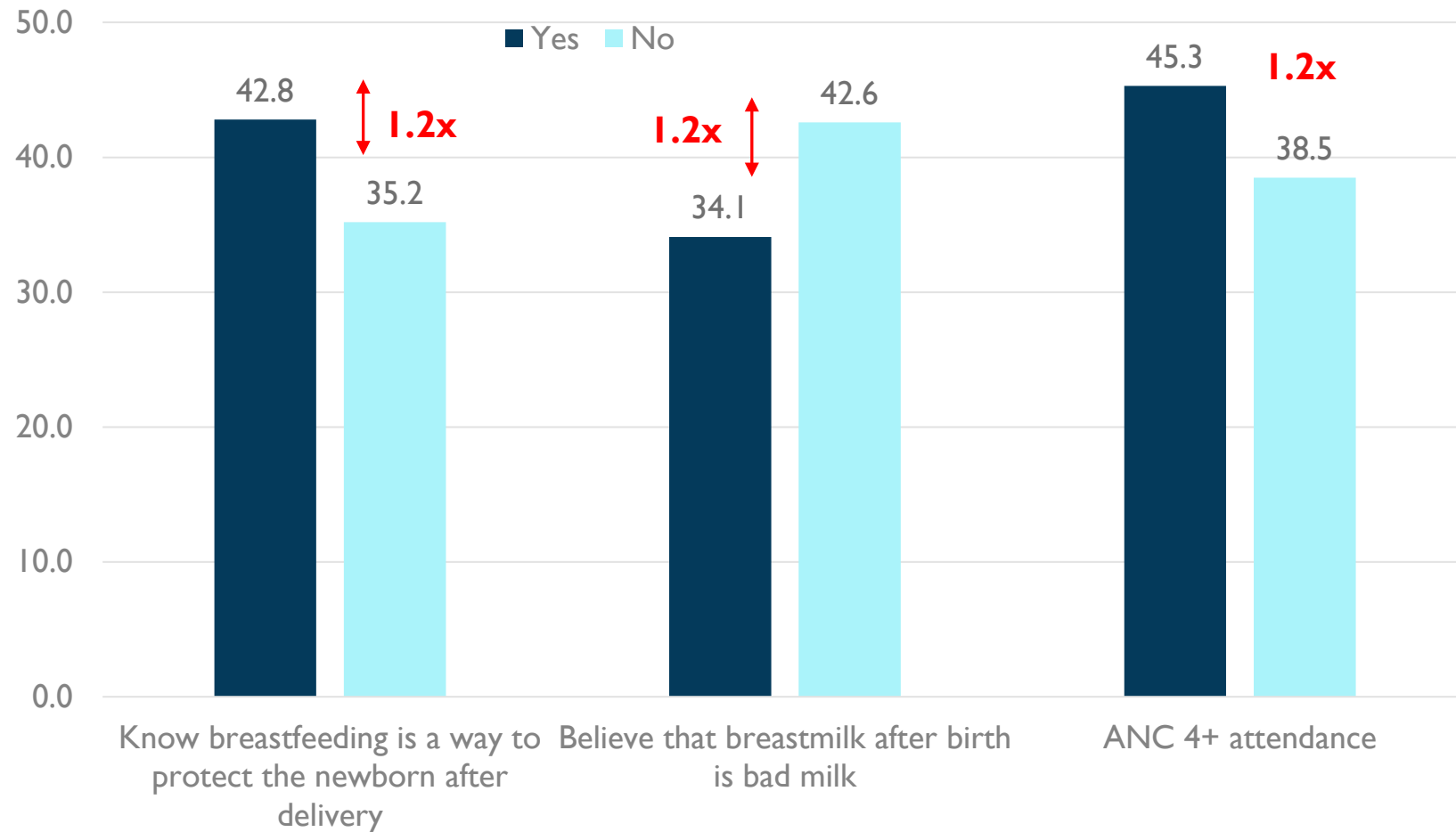
Differences in likelihood are statistically significant at <0.05 level in mixed-effects logistic regression analysis adjusted for ideational and sociodemographic variables, e.g. wealth, age, employment and education (respondent and spouse)

ANC, knowledge and beliefs for early breastfeeding

Knowledge: Women who know breastfeeding is a way to protect newborns were **1.2x** more likely to start breastfeeding <1 hour of birth

Beliefs: Women who do not believe breastmilk after birth is bad were **1.2x** more likely to start breastfeeding <1 hour of birth

ANC 4+ attendance was significantly associated with initiating breastfeeding within 1 hour of birth



Differences in likelihood are statistically significant at <0.05 level in mixed-effects logistic regression analysis adjusted for ideational and sociodemographic variables, e.g. wealth, age, employment and education (respondent and spouse)

Other determinants of breastfeeding practices

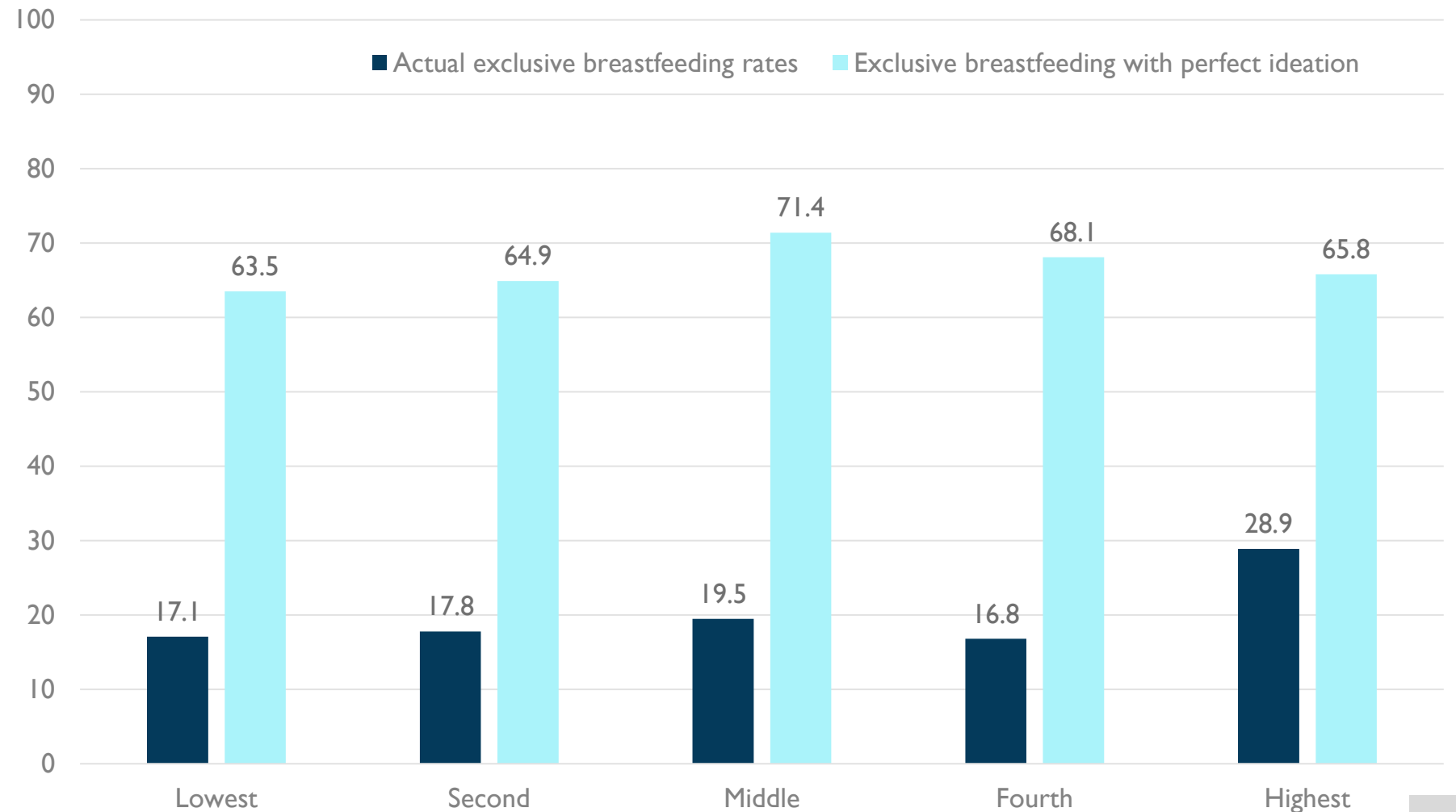
- ANC 4+ attendance was significantly associated with early initiation of breastfeeding but not exclusive breastfeeding (adjusted for other factors)
- Health providers were a significant social influence on breastfeeding decisions, but spousal influence was not significant
- No significant sociodemographic influence on exclusive breastfeeding; only significant ideations of knowledge, beliefs and self-efficacy after adjustment
- Household wealth and maternal employment were significantly associated with early initiation of breastfeeding in addition to knowledge and beliefs

6. SBC Program Potential

How much could SBC improve breastfeeding?

By how much would exclusive breastfeeding rates increase if SBC programs created “perfect ideation” (all significant ideations reached 100%)?

In the absence of other changes, exclusive breastfeeding rates could increase from 33% to 66% with ‘perfect ideation’



Program Implications

Program implications

Focus SBC programming on early breastfeeding practices

- Dispel common misperceptions that colostrum is bad milk
- Address widespread practice of giving non-breastmilk liquids in first 3 days after birth
- Further explore which liquids are given to newborns and cultural reasons for practice
- Improve ANC4+ quality and reach as a potential 'gateway moment' to promote early and exclusive breastfeeding practices

Target geographic clusters with poor exclusive breastfeeding rates

- Very low exclusive breastfeeding rates are clustered in southwestern Kebbi
- Need to better understand reasons for geographic clustering
- Develop SBC messaging to address specific barriers found in this area

Program implications

Tailor SBC messaging to address knowledge, beliefs and self-efficacy

- Emphasize breastfeeding benefits for both mothers and newborns
- Ensure women know how long to breastfeed and when to introduce complementary foods
- Dispel misperceptions that “*breastmilk after birth is bad milk*” to improve early and exclusive breastfeeding practices
- Support women’s confidence to exclusively breastfeed for the first 6 months of life
- Engage religious or community leaders to help shift norms around breastfeeding
- Need research to further explore women’s own opposition to exclusive breastfeeding and the role of spousal opposition

What's next?

Next steps

- Present BSS results for different health areas in a webinar series
 - Pregnancy and childbirth
 - Breastfeeding
 - Vaccination
 - Malaria
 - Family planning
 - Childhood illnesses, e.g. diarrhea, fever and cough with rapid breathing
- Conduct further BSS analyses to inform SBC programming
- Prepare manuscripts and research briefs to disseminate results
- Plan for the BSS midline survey in September-October 2020

Future work and significance

- BSS baseline results are a first step for assessing the effectiveness and cost-benefit of integrated versus malaria-only SBC programs in Nigeria
- Highlight ideations and behaviors during this baseline period to inform SBC program scale-up and adaptation
- Present new ideational metrics across MNCH+N areas and quantify their relationship with behavioral outcomes to test behavioral change theories
- Link BSS results with routine program data or health facility records to examine impact of supply- and demand-side factors on service use

Project Team

Paul L. Hutchinson, Tulane University (PI)

Paul C. Hewett, Population Council (co-PI)

Emily White Johansson, BR Nigeria/Tulane

Elizabeth Omoluabi, CRERD

Akanni Akenyemi, CRERD

Dele Abegunde, BR Nigeria/Population Council

Dominique Meekers, Tulane University

Udochisom Anaba, BR Nigeria/Tulane

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THANK YOU



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