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National Information Platform for Nutrition

Ethiopian Public Health Institute

Effectiveness of Social and Behavior Change Communications (SBCC) to Improve Infant and Young Child Feeding Practices in Ethiopia: A Rapid Review.

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National Information Platform for Nutrition (NIPN)

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LIST OF ACRONYMS

BF	Breastfeeding
CMAM	Community Management of Acute Malnutrition
CF	Complementary Feeding
EBF	Exclusive Breastfeeding
ENA	Essential Nutrition Actions
GRADE	Grading of Recommendations, Assessment, Development and Evaluation
HDTL	Health Development Team Leader
HDA	Health Development Army
HEW	Health Extension Worker
JBI	Joanne Briggs Institute
MAD	Minimum Acceptable Diet
MDD	Minimum Diet Diversity
MDD	Minimum Meal Frequency
IYCF	Infant and Young Child Feeding
PICO	Population, Intervention, Control and Outcome
SBCC	Social and Behavior Change Communication
WDA	Women's Development Army
WHO	World Health Organization

EXECUTIVE SUMMARY

Appropriate infant and young child feeding (IYCF) practices are critical for optimal child growth and development. Despite some progress, the implementation of IYCF practices are still sub-optimal in Ethiopia. A key component of a strong, synergistic approach for improving the health and nutritional wellbeing of children is the use of social and behavior change communication (SBCC) interventions.

The purpose of this review was to identify the types of SBCC approaches that are used in Ethiopia and to assess their effectiveness to improve IYCF practices.

We conducted a rapid review to synthesize local evidence and included studies that were conducted in children aged 0-23.9 months, that included a SBCC or nutrition education intervention, and that reported on IYCF outcome indicators. Seven studies met these criteria, were critically appraised, and the quality of their evidence rated. The eight core IYCF indicators recommended by the World Health Organization (WHO) were selected as outcomes.

Key Findings

- SBCC interventions were found to be effective in improving IYCF practices in Ethiopia. These interventions were more effective compared to traditional nutrition education interventions that only focus on individual behavior change.
- SBCC interventions that were the most effective used multiple platforms, segmented the audience, had multiple contact points, and were multisectoral.
- Improvements in several IYCF indicators were seen with SBCC interventions. Early initiation of breastfeeding, exclusive breastfeeding, timely introduction of complementary feeding, minimum diet diversity (MDD), minimum meal frequency (MMF), and minimum acceptable diet (MAD) all showed some improvement. A large-scale SBCC intervention study reported a differential increase of 6% in MDD in the group that received SBCC intervention compared to the control group who received standard routine nutrition services through the health system.

Conclusion and Recommendations

SBCC interventions were effective in improving some IYCF indicators when implemented at scale. The use of multiple SBCC approaches, communication channels, and more intense exposure to interventions, showed the largest effect on IYCF practices. However, only a limited number of studies were found that reported the effect of SBCC and nutrition education interventions implemented at scale on IYCF practices in Ethiopia. Among the studies that were reviewed, there were notable differences in how IYCF indicators were assessed. Some studies did not use the WHO recommended indicators to assess IYCF practices. This reduced available data and limited the amount of information used to synthesize evidence on the eight core IYCF indicators.

Based on the findings, we recommend the following:

- Reinforcing messages by using multiple communication channels is critical.
- SBCC interventions alone cannot lead to a large improvement in IYCF. These interventions should be coupled with other interventions to improve availability, accessibility, and affordability of food.
- Large-scale SBCC intervention implementation should be coupled with implementation science to facilitate systematic uptake of research findings and evidence-based practices into routine practice and to improve the quality and effectiveness of nutrition service delivery.

BACKGROUND

Good nutrition during the first two years of life is essential for survival, physical growth, and mental development[1]. Since foundations for lifelong health are laid during this time, malnutrition in children under two years of age can have dire consequences across the entire lifespan[1,2]. The WHO recommends that infants be exclusively breastfed for the first six months of life as breast milk is sufficient to meet the infant's nutritional needs[3]. The mother is advised to continue breastfeeding her baby for up to two years and to begin nutritionally adequate and safe complementary feeding at six months to meet her baby's evolving nutritional needs [3]. If complementary foods are not introduced at the recommended time, or if they are given inappropriately, an infant's growth may falter[3]. Hence, complementary feeding should be timely, adequate, safe, and responsive to the child's feeding cues[4].

Sub-optimal complementary feeding practices sometimes occur due to caretakers' limited knowledge about the type and amount of complementary foods the baby needs and traditional beliefs that affect food choices[5]. Hence, effective educational interventions such as group training, individual counseling, feeding demonstrations, and community mobilization are needed to improve IYCF practices[6]. A key component of a strong, synergistic approach for improving the health and nutritional wellbeing of children is the use of SBCC interventions[7]. These interventions target audiences beyond the individual level and include the community and societal levels[8]. SBCC is interactive, contextual, theory-based, and uses multiple channels of communication. Commonly used SBCC approaches include interpersonal communication at the individual level which is reinforced through community mobilization and mass media messages[7-10]. SBCC can serve as a stand-alone intervention but is increasingly used in combination with other behavior change strategies to improve maternal and infant nutritional status[11].

SBCC interventions have been shown to be effective in IYCF practices globally. A systematic review of 91 studies found that SBCC improved dietary practices during pregnancy, early initiation of breastfeeding, exclusive breastfeeding, continued breastfeeding, dietary diversity, and meal frequency in infants and young children[8]. Another systematic review that looked at the use of mass media interventions along with nutrition education, reported improvement in breastfeeding practice and dietary diversity[12]. A more recent systematic review that assessed the effect of individual-focused educational interventions on complementary feeding practices found improvements in the age of introduction of complementary foods and hygiene practices[13].

OBJECTIVE OF THE REVIEW

In Ethiopia, interventions that address nutrition during the first two years of life are provided as part of routine nutrition services. However, despite some improvement, IYCF practices are still sub-optimal. To aid the design and delivery of high-impact interventions, it is important to identify SBCC approaches that work in the local context. SBCC interventions are multi-faceted by design and need to be context-specific, and evidence-based to be effective. Therefore, the purpose of this review was to identify the types of SBCC approaches that are being used in Ethiopia and assess the effectiveness of these interventions to improve IYCF practices.

METHODS

We employed a rapid review methodology to synthesize evidence to address the review question: "Can SBCC interventions effectively improve infant and young child feeding practices in Ethiopia?"

Methods used to identify, screen, select and rate certainty of evidence are outlined below.

Criteria for Studies Included in the Review

We used the PICO (Population, Intervention, Control, and Outcome) framework to break concepts into components to facilitate the search. The criteria listed below were used to include the studies.

Type of studies. We included quantitative studies that evaluated programs providing some form of SBCC or nutrition education intervention. Study designs included randomized controlled trials, cluster-randomized trials, quasi-experimental studies, and repeated cross-sectional project evaluations. The review was limited to peer-reviewed studies done in Ethiopia that were published in English.

Types of participants: We included studies that were conducted on mother and child pairs with the age of the child ranging between 0 to 23.9 months.

Types of interventions: The main interventions of interest for this review were those targeting SBCC. We defined SBCC interventions as a set of interventions that are focused at the individual, community and societal levels and that are implemented using multiple communication channels. However, since very limited studies have been conducted on SBCC interventions in Ethiopia, we also included nutrition education or counseling interventions that targeted individuals.

Type of outcome measures: The primary outcome of interest was IYCF practices. For the purpose of this review, we selected the following eight core IYCF practice indicators recommended by the WHO[3].

1. Early initiation of breastfeeding within one hour after birth.

2. Exclusive breastfeeding for the first six months.
3. Continued breastfeeding at one year.
4. Introduction of solid semi-solid or soft foods at 6-8 months.
5. Minimum diet diversity (MDD): four or more food groups.
6. Minimum meal frequency (MMF): two times for breastfed infants 6-8 months, three times for breastfed children 9-23 months, and four times for non-breasted children 6-23 months.
7. Minimum acceptable diet (MAD): met both MDD and MMF recommendations.
8. Consumption of iron-rich or iron-fortified foods.

Search Methods and Selection of Studies

We used PubMed to search for terms for each component in the PICO framework. The search strategy is shown in the Annex 1, Tables 2 and 3. We did not apply design-related filters to ensure that our search was broad and that we did not miss any studies. We exported the search results Endnotes to keep a log of the studies and to facilitate their screening.

We screened the titles and abstracts of the studies based on the pre-defined inclusion criteria. We reviewed the full-text of eligible studies to make a decision on their inclusion. The PRISMA flow diagram (Annex 2, Figure 1.) provide an overview of the selection process.

Data Collection and Quality Appraisal

Once the studies were selected, we appraised their quality using the Joanna Briggs Institute (JBI) critical appraisal tools[14-16]. We assessed the certainty of evidence using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) working group guidelines[17] and qualitatively synthesized the effect of interventions on outcomes. For more details on the quality appraisal see Annex 3, Tables 4 and 5, and Annex 4, Table 6.

Limitations of the Review

The rapid nature of the review limited the scope of our evidence synthesis. For this review, we only included peer-reviewed studies, not gray literature, our search was limited to PubMed and to studies carried out in Ethiopia. Ideally the screening of studies and the assessment of their eligibility would be done in pairs (two investigators assessing eligibility of a study simultaneously). However, due to the time limit, we did not carry out a dual screening for this review.

RESULTS

Description of the Studies

We identified seven relevant studies for this review[18-24]. Only two of the studies, Kim et.al, 2019[20] and Kim et. al, 2016[21], evaluated the effect of a large-scale SBCC interventions on IYCF practices. Both studies were evaluations of programs implemented by Alive & Thrive Ethiopia. The 2019 study had a control group[20] while the older study (2016) used a pre- and post-evaluation design with no control group[21]. Both SBCC intervention studies used a multi-channel communication approach which included interpersonal communication with mothers, community mobilization, and mass media messages[20,21]. The remaining five studies[18,19,22-24] all provided nutrition education interventions that were only targeted to mothers for individual behavior change. One of the studies Kang, 2017[19], was an evaluation of a large-scale community-based nutrition intervention program. The rest were small studies of programs that were not implemented at a large scale[18,22-24]. The results of each study and methodological details are summarized in Table 1. The qualitative analysis of the results by outcomes is presented below.

Qualitative Analysis

Early initiation of breastfeeding

An increase in early initiation of breastfeeding were observed in three studies. Two of these evaluated programs that used an SBCC approach [20,21] and one focused on a nutrition education approach[18]. Out of these three studies, only one[20] had a control group that received standard nutrition services as part of the healthcare system. In this study, early initiation of breastfeeding increased in the control group as well as in the SBCC group. Even though more improvement was seen in the SBCC group (7%), this difference was not statistically significant.

Exclusive breastfeeding under six months

The pre- and post-intervention evaluation[21] of a large-scale SBCC program implemented for 24 months, showed a significant increase in exclusive breastfeeding by 9%.

Continued breastfeeding at one year

Despite the increase in exclusive breastfeeding, no impact was seen on continued breastfeeding at one year in neither of the large-scale SBCC intervention studies[20,21], nor did it show an improvement in the control group that received standard nutrition services[20].

Introduction of solid, semi-solid or soft foods

Although the difference in increase was not statistically significant, SBCC interventions contributed to the increase in the timely introduction of complemetary foods at 6-8 months (3%), while timely introduction decreased (13%) in the control group who received standard nutrition services[20]. In a pre- and post-intervention evaluation, timely introduction of complementary foods increased significantly in those who received SBCC interventions[21].

Minimum Diet Diversity (MDD)

The study by Kim et.al, 2019, found that SBCC interventions significantly improved MDD by 6% in the SBCC intervention group compared to control group[20]. MDD also increased by 3% in a pre- and post-SBCC intervention evaluation[21]. A study that provided nutrition education also reported an improvement in MDD in the intervention group compared to the control group[24].

Minimum Meal Frequency (MMF)

In the same study by Kim et.al, 2019, the MMF improved in both the SBCC intervention group (6% increase)[20] and in the control group (1% increase). Although the increase was higher in the SBCC group, it was not statistically significant. Large improvement in MMF was seen in a pre- and post-SBCC intervention evaluation (26% increase)[21]. A large scale-community nutrition education program also improved meal frequency[19].

Minimum Acceptable Diet (MAD)

Kim et.al, 2019, also found that the MAD was marginally higher in the SBCC intervention group (5% differential increase) compared to the control group[20]. MAD also improved in the group who received standard nutrition services, and significantly increased (by 3%) in the pre- and post-SBCC intervention evaluation[21].

Consumption of Iron-rich or Iron-fortified Foods

SBCC interventions did not signifcanlty improve consumption of iron-rich or iron-fortified foods[20,21].

Table 1. Summary of intervention and findings of the reviewed studies

Author, Year	Study setting and design	Population studied	Intervention vs Control	Outcomes	Findings	Authors' conclusions and recommendations
Kim, *et. al.*, 2019	Western Amhara Impact evaluation: repeated cross-sectional studies	Mother-child pairs (6-23.9 mo.) **Intervention:** Baseline n=1328, End-line n=1360 **Control:** Baseline n=1318 End-line n=1360	**<u>Intervention group:</u>** Health extension workers (HEW): IYCF counseling and food demonstrations. Health development team leaders (HDTL): IYCF counseling. Development Agents: promoted agricultural activities. Ethiopian Orthodox church leaders: Community mobilization. Community-based Organizations: Community conversations on IYCF. Mass media: 12-episode radio drama. Broadcast was supplemented with mobile vans and live re-enactment. **<u>Control group:</u>** HEWs and HDTLs: provided standard nutrition counseling and food demonstrations. Development Agents: provided standard agricultural services. Little or no IYCF community mobilization.	1. Early initiation of breastfeeding (BF) 2. Continued breastfeeding at one year. 3. Timely introduction of solid, semi-solid, or soft foods at 6–8.9 months 4. MMD 5. MMF 6. MAD 7. Consumption of iron-rich or iron-fortified foods	**Early initiation of BF:** - Intervention group: 15.58% increase - Control group: 8.43% increase **Continued breastfeeding at one year:** - Intervention group: 0.14% decrease. - Control group: 0.04% decrease **Introduction of solid and semi-solid foods:** - Intervention group: 2.62% increase, - Control group: 3.08% decrease **MMD:** - Intervention group: 19.7% increase - Control group: 8.4% increase. A significant difference in difference 6.2% **MMF:** - Intervention group: 5.7% increase, - Control group: 1.21% decrease **MAD:** - Intervention group: 14.1% increase - Control group: 8.58% increase	Delivering SBCC interventions in first or second level agriculturally productive areas, using multiple platforms and involving different sectors, achieved improvements in MDD. Despite improvements complementary feeding practice remained poor at end-line and although the intervention was delivered through multiple platforms, exposure to interventions was still moderate. Thus, there is need for continued efforts to improve complementary feeding practices and expand intervention coverage.

			Mass media: 12-episode radio drama. Duration of intervention: 36 months		**Consumption of iron-rich or iron-fortified foods:** - Intervention group: 1.03% increase - Control group: 2.1% increase	
Kang *et.al.*, 2017	Habro and Melka Bello districts, Eastern Ethiopia. Cluster randomized trial n=2064 (1032 per group)	Mother and child pairs (6-12 months)	**<u>Intervention group:</u>** Cooking demonstration followed by a 12-day IYCF promotion session. One to two follow up visits within the two weeks following the session. **<u>Control group:</u>** Standard of care (Routine IYCF practice provide through the health system)	1. MMF 2. MDD	- MMF score was higher among the intervention group than the control group over the 12-month follow-up period. - MDD was higher in the intervention group but was not significant.	A community-based nutrition intervention, that was implemented concurrently with existing routine interventions, improved meal frequency in the intervention group. Longer exposure is needed to increase diet diversity in resource limited settings.
Kim, *et. al.*, 2016	Southern Nations, Nationalities and Peoples' Region (SNNP), Tigray Pre- and post-evaluation: Repeated cross sectional studies (2010, n=1481 and 2014, n=1475)	Mother and child pairs (0-59.9 months)	**<u>Intervention group:</u>** Large-scale SBCC intervention. HEW/women's development army (WDA): Counseling of women on seven key messages on IYCF. Community mobilization: community conversations on IYCF. Mass media: six radio messages, two on breastfeeding and four on complementary feeding. **<u>Control group</u>**: No control group	1. Early initiation of BF 2. Exclusive breastfeeding (EBF) for six months 3. Continued BF at one year 4. Timely introduction of solid, semi-solid, or soft foods at 6–8.9 months 5. MDD 6. MMF 7. MAD	- Early initiation of BF increased by 13.7% - EBF increased by 9.4 % - Timely introduction of complementary foods increased by 22.2% - MDD increased by 3.3% - MMF increased by 26.2% - MAD increased by 3.5% - Consumption of iron-rich foods increased by 2.7%	SBCC interventions were associated with large improvements. Despite improvements, complementary feeding practices are still very poor in Ethiopia. Overall exposure to intervention was low. Larger effects might have been achieved with greater coverage and higher intensity.

			Duration of interventions: 48 months	8. Consumption of iron-rich or iron-fortified foods		Household food insecurity and other constraints should be addressed to enable conditions for adoption of recommended practices promoted by effective SBCC strategies in Ethiopia.
Mululaem *et.al.*, 2016	Wolayita Zone, SNNPR A quasi-experimental study	80 mother-child pairs (6-18 months)	**Intervention group:** Nutrition education focused on incorporating pulses into complementary foods, delivered every two weeks for six months to mothers. **Control group:** Standard of care	1. MMF 2. Incorporating legumes into complementary foods	- MMF: Significant increase in the intervention group and some increase in the control group - More mothers in the intervention group incorporated legumes in complementary foods compared to the control	A recipe-based group nutrition education intervention increased addition of locally grown pulsed to complementary foods.
Callaghan-Koru, *et.al.*, 2016	Tigray, Oromia, Amhara and SNNP Pre and post intervention design	215 mothers	**Intervention group:** Facility-based Kangaroo Mother Care. Community-based promotion of exclusive breastfeeding and skin to skin contact by HEW and health development army (HDA) during 3 home visits after delivery. **Control group:** No control group	1. Early initiation of BF	- Breastfeeding within the first hour increased.	Promotion of skin to skin contact and exclusive breastfeeding by community health workers, coupled with strengthened newborn care at local health facilities, likely contributed to significant increases in newborn care practices.
Tariku, *et.al.*, 2015	Dore Bafano district, Sidama Zone, SNNPR Cluster-randomized trial	166 mother-child pairs (6–18 months)	**Intervention group:** **Group 1:** Community health volunteers delivered messages on complementary feeding using the Health Belief Model every two weeks for three months. **Group 2:** HEW provided nutrition education using traditional (didactic)	1.MDD 2. MMF	- MDD increased in both intervention groups and did not show an improvement in the control group.	An educational intervention based on the health belief model, improved minimum diet diversity. Meal frequency were improved in all groups.

			method on complementary feeding practices every two weeks for three months. **<u>Control group</u>**: Standard of care			This study demonstrated that mode of delivery of messages is important to achieve desired improvements in complementary feeding practices.
Negash, et. al., 2014	Hula Woreda, SNNPR Cluster randomized trial	197 mother-child pairs (6 to 23 months)	**<u>Intervention group:</u>** Nutrition education on young child feeding and complementary food cooking demonstration every two weeks for six months. **<u>Control group</u>**: Standard of care	1. MDD 2. MMF	- Improvement in MDD seen in the intervention group. - MMF improved in both the intervention and control groups.	A recipe-based nutrition education intervention increased minimum diet diversity and minimum meal frequency.

CONCLUSION AND RECOMMENDATIONS

Despite limited evidence in the Ethiopian context, SBCC interventions were effective in improving some IYCF indicators when implemented at scale. Dietary diversity and meal frequency were two indicators that were consistently improved through SBCC interventions. The evidence also showed that using multiple SBCC approaches and channels to improve IYCF practices was more effective. Large-scale SBCC interventions that showed the largest and reliable effect on feeding practices used multiple SBCC approaches, and in one instance, the intervention was multisectoral. The evidence also showed more contacts and exposure to messages resulted in greater improvement in feeding practices. Using multiple approaches to deliver SBCC intervention such as interpersonal communications, community mobilization, and mass media reinforced messages and created a conducive environment for behavior change. It is also important to note that in addition to the delivery of SBCC interventions, other enabling factors such as food security, are important to facilitate behavior change.

Among the studies that were reviewed, there were notable differences in how IYCF indicators were assessed. Some studies did not use the WHO recommended indicators to assess IYCF practices. This reduced available data and limited the amount of information used to synthesize evidence on the eight core IYCF indicators. Furthermore, there were only a limited number of studies that have reported the effect of SBCC and nutrition education interventions implemented at scale on feeding practices. In the future, large-scale SBCC intervention implementation should be coupled with implementation science to facilitate systematic uptake of research findings and evidence-based practices into routine practice and to improve the quality and effectiveness of nutrition service delivery.

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ANNEXES

Annex 1: Search Strategy and Search Log

Table 2. Search strategy

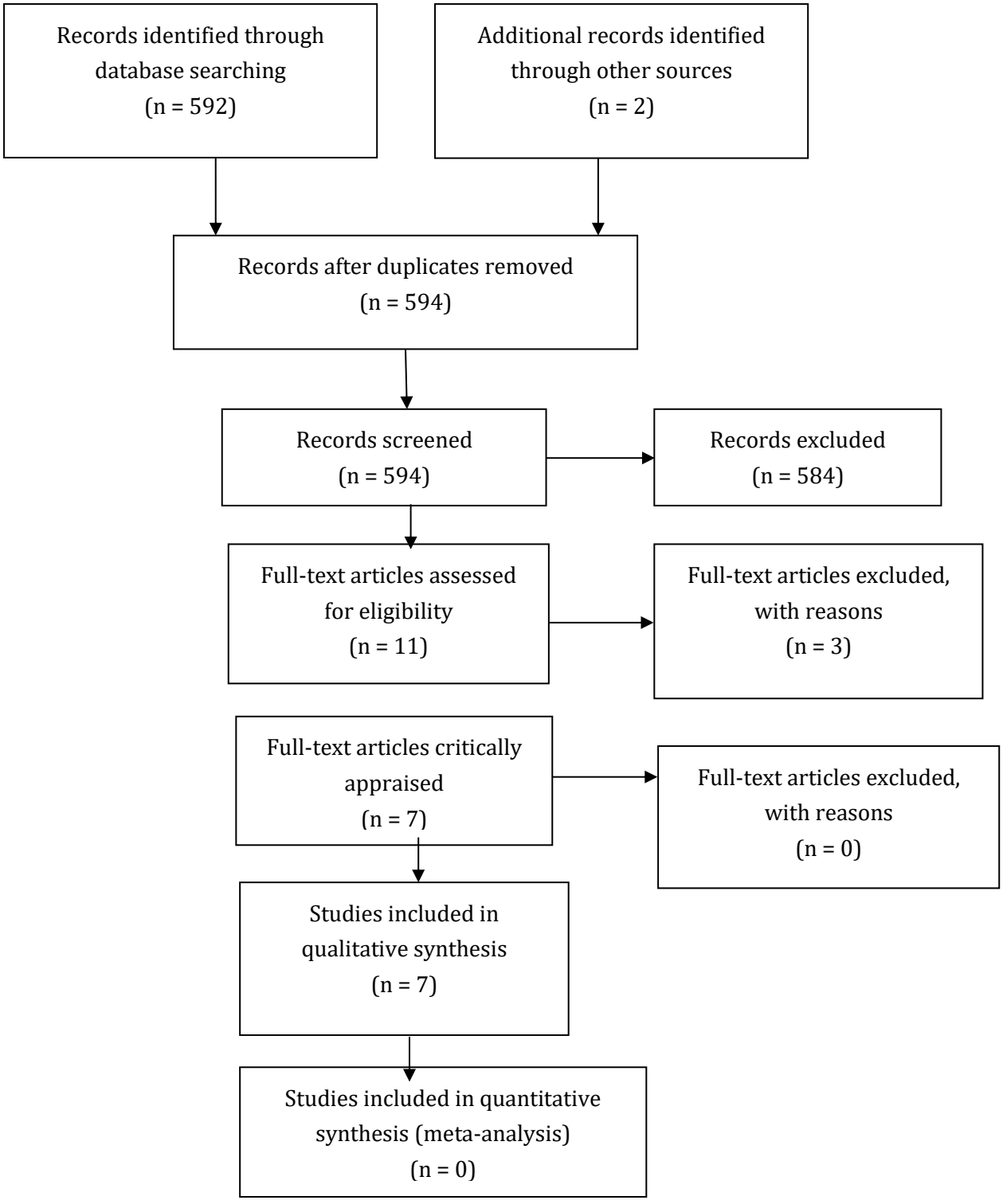
PICO elements	Search term
Children under 2	Infant [tiab] OR young children [tiab] OR Children under 2 [tiab] OR Neonate [tiab] OR Infant [Mesh] OR Infant, Newborn (Mesh]
	AND
Social behavior change communication	Social behavior change communication [tiab] OR Nutrition counseling [tiab] OR Nutrition education [tiab] OR Health education [Mesh] OR Counseling [Mesh] OR Education [Mesh]
	AND
Feeding practices	IYCF [tiab] OR Breastfeeding [tiab] OR Complementary feeding [tiab] OR Feeding behavior [Mesh] OR Diet [Mesh] OR Breast Feeding [Mesh] OR Weaning [Mesh]
	AND
Ethiopia	Ethiopia

Table 3. Search log March 13, 2020

#	**Search string (PubMed)**	**# Results**
	Infant and young child feeding [tiab]	1
1	Infant [tiab] OR young children [tiab] OR Children under 2 [tiab] OR Neonate [tiab] OR Infant [Mesh] OR Infant, Newborn (Mesh]	1,211,983
2	Social behavior change communication [tiab] OR Nutrition counseling [tiab] OR Nutrition education [tiab] OR Health education [Mesh] OR Counseling [Mesh] OR Education [Mesh]	868,787
3	IYCF [tiab] OR Breastfeeding [tiab] OR Complementary feeding [tiab] OR Feeding behavior [Mesh] OR Diet [Mesh] OR Breast Feeding [Mesh] OR Weaning [Mesh]	401,058
4	Ethiopia [tiab] OR Ethiopia [Mesh]	17,048
5	#1 AND #2 AND #3 AND #4	592

Annex 2: PRISMA Flow Diagram

Figure 1: PRISMA flow diagram



Annex 3: Summary of the Findings

Table 4: Summary of the findings for SBCC interventions

SBCC intervention compared with standard of care			
Patients or population: Children of complementary feeding age (6-23.9 months) **Settings:** Community **Intervention:** SBCC intervention **Comparison:** Standard of care /Pre- and post- intervention evaluation			
Outcomes	**Impact**	**Number of participants (Studies)**	**Quality of the evidence (GRADE)***
Early initiation of breastfeeding	Early initiation of BF increased in both SBCC and standard of care groups. Increase was higher in SBCC group by 7% although not statistically significant. In a pre- and post-intervention evaluation, SBCC significantly increased early initiation of breastfeeding by 14%.	4153 (2 studies)	⊕⊕⊕⊖ **Moderate**
Exclusive breastfeeding under 6 months	In a pre- and post-intervention evaluation, SBCC significantly increased exclusive breastfeeding by 9%.	1472 (1 study)	⊕⊕⊕⊖ **Moderate**
Continued breastfeeding at one year	SBCC intervention had no impact on continued breastfeeding at one year.	4153 (2 studies)	⊕⊕⊕⊖ **Moderate**
Introduction of solid semi-solid or soft foods	SBCC intervention increased timely introduction of CF, while it decreased in standard of care group. In a pre- and post-intervention evaluation timely introduction of CF increased significantly in those who received SBCC.	4153 (2 studies)	⊕⊕⊕⊖ **Moderate**
Minimum diet diversity	SBCC intervention significantly improved MDD compared to standard of care (6% increase). MDD significantly increased by 3% in a pre- and post-SBCC intervention evaluation.	4153 (2 studies)	⊕⊕⊕⊖ **Moderate**
Minimum meal frequency	MMF improved in both SBCC and standard of care. Although increase was higher in the SBCC group, it was not statistically significant. Large	4153 (2 studies)	⊕⊕⊕⊖ **Moderate**

	improvement in MMF were seen in a pre- and post-SBCC intervention evaluation.		
Minimum acceptable diet	MAD improved in both SBCC and standard of care. Increase was marginaly higher in the SBCC group. MAD significantly increased by 3% in a pre- and post-SBCC intervention evaluation.	4153 (2 studies)	⊕⊕⊕⊖ **Moderate**
Consumption of iron-rich or iron-fortified foods	SBCC intervention did not significantly improve consumption of iron-rich or iron-fortified Foods.	4153 (2 studies)	⊕⊕⊕⊖ **Moderate**

*GRADE Working Group grades of evidence
⊕⊕⊕⊕ **High:** We are confident that the true effect lies close to what was found in the research
⊕⊕⊕⊖ **Moderate:** The true effect is likely to be close to what was found, but there is a possibility that it is substantially different
⊕⊕⊖⊖ **Low:** The true effect may be substantially different from what was found
⊕⊖⊖⊖ **Very low:** We are very uncertain about the effect

Table 5: Summary of finding for nutrition education interventions

Nutrition education intervention compared with standard of care			
Patients or population: Children of complementary feeding age (6-23.9 months) **Settings:** Community **Intervention:** SBCC intervention **Comparison:** Standard of care			
Outcomes	**Impact**	**Number of participants (Studies)**	**Quality of the evidence (GRADE)***
Early initiation of breastfeeding	Nutrition education significantly increased early initiation of breastfeeding.	217 (1 study)	⊕⊖⊖⊖ **Very low**
Minimum diet diversity	Nutrition education improved dietary diversity.	363 (1 study)	⊕⊖⊖⊖ **Very low**
Minimum meal frequency	Nutrtion education significantly improved meal frequency.	2338 (3 studies)	⊕⊖⊖⊖ **Very low**

*GRADE Working Group grades of evidence
⊕⊕⊕⊕ **High:** We are confident that the true effect lies close to what was found in the research
⊕⊕⊕⊖ **Moderate:** The true effect is likely to be close to what was found, but there is a possibility that it is substantially different
⊕⊕⊖⊖ **Low:** The true effect may be substantially different from what was found
⊕⊖⊖⊖ **Very low:** We are very uncertain about the effect

Annex 4: Quality of Evidence Assessment Criteria

Table 6: Quality of evidence assessment criteria

Quality of evidence	**Study design**	**Lower if ***	**Higher if ***
High (4)	Randomized trial	Study limitations -1 Serious -2 Very serious Inconsistency -1 Serious -2 Very serious Indirectness -1 Serious -2 Very serious Imprecision -1 Serious -2 Very serious Publication bias -1 Likely -2 Very likely	Strong association +1 Strong, no plausible confounders +2 Very strong, no major threats to validity Dose response +1 Evidence of a gradient All plausible confounders +1 All plausible confounders or bias would decrease the size of the effect if there is evidence of an effect, or increase it if there is evidence of no harmful effect (safety)
Moderate (3)			
Low (2)	Observational study		
Very low (1)			

* 1 = Move up or down one grade (for example from high to intermediate), 2 = Move up or down two grades (for example from high to low) 0.5 = Borderline. Inconsistency: in the body of evidence. Indirectness: Outcomes of interest are not compared at the same time, impact not directly assessed and generalization. Imprecision: Small sample size and large confidence intervals. Risk of bias: Allocation concealment, blinding, loss to follow up, intention-to-treat, all outcomes are reported, selection bias and information bias.

Annex 5: MOH Request Letter and Questions

የኢትዮጵያ ፌዴራላዊ ዲሞክራሲያዊ
ሪፐብሊክ
የጤና ጥበቃ ሚኒስቴር

Federal Democratic Republic of
Ethiopia
Ministry of Health

ቀን Date 26-06-2012

ቁጥር Ref. No. ሚጤ/18/45/210

በኢትዮጵያ የህብረተሰብ ጤና ኢንስቲትዩት
ለምግብ ሳይንስና ሥነ ምግብ ምርምር ዳይሬክቶሬት
አዲስ አበባ

ጉዳዩ፡- የጥናት ትብብር ስለመጠየቅ፣

የጤና ሚኒስቴር በአለም ባንክ ድጋፍ ሊተገበራቸው ከታቀዱ ተግባራት አንዱ በኢትዮጵያ የህብረተሰብ ጤና ኢኒስቲቲዩት የሚከናወነው የሁለተኛው ብሄራዊ ስርኣተ ምግብ ፕሮግራም ማጠቃለያ ጥናት (NNP II endline survey) አንዱ ሲሆን በቅርቡ ከለጋሽ ድርጅቱ ጋር በነበረው የአፈፃፀም ግምገማ ላይ ውይይት ተደርጎ በተደረሰው ስምምነት ለፕሮግራም ትግበራው የተያዘው አምስት አመት ጊዜ ባለመጠናቀቁ የጥናት ጊዜው በአንድ አመት እንዲራዘም ስምምነት መደረሱ ይታወቃል።

ይሁን እንጂ ጥናቱ በመራዘሙ ውጤቱን ለምግብና ስርዓተ ምግብ ስትራቴጂ ግብዓትነት ለመጠቀም ባለመቻሉ በጉዳዩ ላይ የጤና ሚኒስቴር ስርዓተ ምግብ ቡድን፣ የኢትዮጵያ የህብረተሰብ ጤና ኢንስቲትዩት ምግብ ሳይንስና ሥነ ምግብ ምርምር ዳይሬክቶሬት ባለሙያዎች እና ከዩኒሴፍ የሚመለከታቸው የስራ ሃላፊዎች በተገኙበት ውይይት ተደርጎ ዋናው ጥናት እስኪደረግ ድረስ ሊኖር የሚችለውን የመረጃ ክፍተት ለመሙላት በኢንስቲትዩቱ በኩል ካለው የመረጃ ቋት (NIPN) በመጠቀም ከምግብና ስርዓተ ምግብ ስትራቴጂ ጋር ተዛማጅነት ባላቸው ጥያቄዎች ላይ የመረጃ ትንተና (Desk Review) እንዲደረግና ከዚህ ጥናት የሚገኘው መረጃም ጥቅም ላይ እንዲውል በውይይቱ ወቅት ስምምነት መደረሱ ይታወቃል።

በመሆኑም ለዚሁ ጥናት መነሻ የሚሆኑ ጥያቄዎችን የስራ ክፍላችን ከዩኒሴፍ የስርዓተ ምግብ ክፍል ጋር በመሆን ያዘጋጀን በመሆኑ ከዚህ ደብዳቤ ጋር አባሪ ተደርጎ የተያዘው ጥያቄዎች መነሻ በእናንተ በኩል የመረጃ ትንተና (Desk Review) ውጤት በወቅቱ እንዲላክልን እንጠይቃለን።

ከሰላምታ ጋር

ዶ/ር ታደሰ (ዶ/ር)
የእናቶችና ህፃናት ጤና
ዳይሬክቶሬት ዳይሬክተር

ግልባጭ
- ✓ ለክብርት ሚኒስትር ዴኤታ ጽ/ቤት (ፕሮግራም ዘርፍ)
- ✓ ለእናቶችና ህፃናት ጤና ዳይሬክቶሬት
- ✓ ለስርዓተ ምግብ ኬዝ ቲም

ጤና ሚኒስቴር

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Questions for Desk Review

1. Which activities/initiatives in the NNPII have been persistently implemented in the past 4 years by region? If not why?
2. What is the coverage of nutrition specific and nutrition sensitive interventions by region/Zone/woreda and result achieved?
3. What are the effects of SBCC interventions in improving feeding practice
4. What are the statistical trends of NNP II indicators in the past 4 years?
5. What are the best practices in the implementation of National Nutrition Program?
6. What are the main challenges in multi-sectoral coordination and implementation of NNP II?
7. Lessons learnt in the implementation process of NNPII

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