



**INTRODUCTION OF BALANCED ENERGY PROTEIN (BEP) SUPPLEMENTATION
THROUGH ANTENATAL CARE:
KEY OPPORTUNITIES, CHALLENGES AND PROGRAM CONSIDERATIONS
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Background

Globally, countries severely impacted by the ongoing food and nutrition crises have experienced a 25% increase (from 5.5 million to 6.9 million) in acute malnutrition among pregnant and breastfeeding women[1]. The World Health Organization (WHO) recommends balanced energy and protein (BEP) dietary supplementation for pregnant women in undernourished populations (where $\geq 20\%$ of women are underweight) to reduce the risk of stillbirths and small for gestational age (SGA) newborn [2]. Evidence shows that antenatal BEP supplementation reduces the risk of stillbirth and SGA, and increases birth weight [3], with greater impact among undernourished women[3,4,5,6,7].

BEP is defined as food or supplement product designed to meet a minimum nutrition profile or composition: protein should account for less than 25% of the total energy content. BEP is recommended to provide 250–500 kilocalories of energy, 14–18 grams of protein, and 3–33 grams* of fat [8]

Implementation of BEP supplementation is often restricted to humanitarian settings, with limited experience in development contexts, especially through facility- and community-based antenatal care (ANC) platforms. Globally, 64% of pregnant women attend at least four ANC visits, presenting a promising opportunity to address maternal underweight by reaching a greater number of pregnant women with BEP supplementation. Yet, many countries have not introduced BEP supplementation through ANC. This technical brief provides a summary of a 2023 global landscape analysis that examined challenges and considerations for BEP introduction through antenatal care through the lens of the policy environment, demand generation, supplies and logistics, service readiness, and monitoring of BEP supplementation.

Methods

Thirteen key informant interviews were carried out with country (n= 7) and global stakeholders (n= 6) on Microsoft teams in partnership with former USAID Momentum Country and Global Leadership (MCGL). Countries were selected based on the presence of USAID-funded maternal health programming and/or aspects of BEP implementation, and were inclusive of: Colombia, Ethiopia, Ghana, Malawi, Mozambique, and Nepal. Key informants were from multilateral organizations, government, implementing partners, and donors. Interview transcripts were transcribed verbatim and were accompanied by detailed notes taken during the interviews. Data analysis was conducted thematically using Dedoose software.

Opportunities and Challenges for Introduction of BEP through ANC

Introduction of BEP into routine ANC presents a promising opportunity to address maternal underweight, yet this is coupled with challenges that merit further examination for BEP integration into ANC platforms. While opportunities exist for moving forward with program design and implementation of BEP, and some countries consider maternal underweight a priority, BEP is not provided through ANC platforms. The key findings section discusses key challenges, opportunities to introduce BEP through ANC, as relayed by country and global stakeholders.

Key Elements	Findings
<p>Enabling environment</p>	<p>Some countries (i.e. Ethiopia, Malawi, Mozambique, and Colombia) view acute maternal malnutrition as a key priority due to high rates of maternal underweight, yet BEP is often not delivered through ANC in these settings.</p> <p>Stakeholders lacked understanding of “what is BEP”, often equating BEP to small quantity lipid based nutrient supplement (SQ-LNS) or ready to use therapeutic foods (RUTF) used for treatment of child wasting.</p> <p>Lack of a standardized definition of BEP contributes to the confusion surrounding BEP.</p> <p>Low awareness that BEP is recommended within WHO ANC guidelines among country stakeholders, which may contribute to low prioritization of BEP as part of national guidelines.</p> <p>BEP is not included in most country ANC guidelines— a significant weakness in the enabling environment.</p>
<p>Service readiness</p>	<p>Provider capacity for BEP provision is weak. Health providers need pre-service and in-service training, coupled with job aids to support quality counselling during ANC.</p> <p>Task shifting from facility health providers to community health providers while balancing provider workload and job responsibilities should be considered.</p>
<p>Demand for BEP</p>	<p>ANC counselling should be strengthened to provide pregnant women with information on BEP benefits, use and compliance.</p> <p>Sharing of BEP supplements is a key challenge. In many households, pregnant women are expected to share supplements with other family members, due to increased household demand for food.</p>



Key Elements	Findings
Demand for BEP	<p>Selling of supplementary foods provided for management of acute malnutrition among pregnant women within HIV-nutrition integrated programs was widely reported - a potential challenge that can be considered in the introduction of BEP.</p> <p>Generating demand for BEP to improve acceptability, compliance, and address sharing and selling through provider counselling should leverage existing platforms i.e. group ANC and mother to mother support groups, and use community engagement, as needed.</p>
BEP Supplies and Logistics	<p>Most country stakeholders emphasized that BEP provided through parallel supply chains within community management of acute malnutrition (CMAM) programming can lead to stockouts.</p> <p>Uncertainty on whether BEP supplements should be considered as food or medicine can hinder whether BEP is included in the essential medicine list.</p> <p>The high cost of importing BEP supplements was relayed by most stakeholders, who discussed that local production could ease storage, reduce costs and transportation challenges.</p>
Monitoring	<p>Monitoring for BEP through routine health systems is weak and a lack of data on BEP supplementation was noted.</p> <p>There is a need to develop standardized indicators for BEP and integrate into existing monitoring systems.</p>

Programmatic Recommendations

To successfully introduce maternal BEP supplementation through routine ANC services, the following actions at the global and country level are needed to improve prioritization, service readiness, demand, compliance, supplies, and monitoring of BEP[9]:



1 GLOBAL LEVEL POLICY AND GUIDANCE

- Standardize the global definition of BEP to guide countries.
- Standardize BEP performance indicators to monitor its context-specific implementation and outcomes based on existing WHO ANC guidance.
- Develop global implementation guidance for BEP supplementation and take into consideration how BEP will be provided alongside other interventions in the ANC package and supplementary foods programs.

2 COUNTRY LEVEL

1) Service Readiness:

- Ascertain the level of burden of underweight at both national and subnational levels, including among adolescents, and the need and urgency to include BEP by 1) reviewing existing data or 2) collecting data on prevalence of underweight among pregnant women (> 20 %) in selected areas of the country.
- Assess health workforce limitations, service provider capacity, and approaches for delivering BEP, including task shifting.
- Ensure provider training includes updated guidance on BEP (i.e. in-service, and pre-service, if possible).

2) Product Identification and Supply System

- Gain consensus on the definition and composition of BEP supplements in country—which products and formulations are given to pregnant/lactating women—to ensure that these meet the globally recommended standards.
- Evaluate the type of BEP supplement based on convenience, meal replacement risk, packaging ease, safety, and transport considerations and form, based on sharing risks, stability, packaging cost, taste, nutrition specifications, salt and sugar content, and energy density.

3) SBC

- Conduct research or assessments on how women perceive and use supplements based on cultural and social determinants and use of locally available foods.
- Ascertain providers' level of understanding and skillsets around BEP provision during ANC
- Ensure that providers are equipped with appropriate and updated counseling skills and associated materials, which can be integrated as part of ANC, as needed.

4) Research

- Review evidence from ongoing clinical trials, when available, on optimal BEP composition, including regional fortification and dietary impact and possible local production.
- Improve understanding of various approaches (i.e., targeting households vs. blanket approaches) with regards to cost, training, health service delivery efficiency, optimal cutoffs by MUAC and BMI, and any drawbacks experienced in communities (i.e., actual increased risk of overweight/obesity, increased cost due to the need for more BEP products for blanket supplementation).
- Use country program data to document the cost-effectiveness of delivering BEP supplementation through routine ANC.
- Conduct research to better understand BEP supplementation during lactation, particularly on effects on maternal and infant health outcomes in undernourished populations

Conclusion

Successful introduction of BEP into ANC requires country program implementers to understand the opportunities and challenges to BEP service readiness, supplies and logistics, demand generation, social behavior change and routine monitoring. Globally, a standardized definition of BEP, standardized operational guidance, and monitoring indicators are needed to support tailored country implementation of BEP supplementation delivered through ANC. By considering the programmatic recommendations outlined in this brief, countries can enhance the reach, quality, and sustainability of BEP supplementation within ANC platforms contributing to improved maternal and infant health outcomes.



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