EVIDENCE BRIEF

NUTRITION: Exclusive breastfeeding from birth

(DCP4 ID: NUTR01-04)

Cluster: Nutrition

FairChoices
DCP Analytic Tool

Promotion of breastfeeding

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Description of condition and intervention

According to WHO, breastmilk is considered the optimum food for infants because it is safe, clean, and is a source of antibodies to protect from common childhood illnesses. It is a good nutritious source of energy and can accommodate 50% of nutrition needs for the second half of the child's first year. It improves future health. For example, breastfed children are less likely to develop metabolic syndrome diabetes later in life. The mother who breastfeeds also benefits from breastfeeding and reduces the risk with a lesser likelihood of developing breast and ovarian cancers and cardiovascular diseases in the mothers. Despite the health benefits, every 3 in 5 babies are not breastfed in the first hour of life. Breastfeeding is essential for newborns body temperature and exposes them to beneficial bacteria from their mothers' skin. The bacteria from the mother's skin protect them from infectious diseases and strengthening their immune system. Early initiation benefits mothers with improved lactation and reduced blood loss. Further, approximately 2 out of 3 infants are not exclusively breastfed for the recommended time of 6 months. This intervention is for the promotion of breastfeeding from birth. (Source: WHO).

This evidence brief assesses effects and costs for one intervention being analyzed in FairChoices: DCP analytical tool (For an overview of other interventions, see appendix below and the separate evidence briefs for these):

NUTR01-04 **Promotion of breastfeeding**

International guidelines

Organization	Indications/recommendations	Applicability in LIC & Lower MIC settings
World Health Organization &	Breastfeeding to infant is initiated within the first hour of birth and exclusively breastfed for the first 6 months of life. After 6 months, safe and adequate complementary foods can be	**Yes**

United Nations International Children's Emergency Fund	initiated; however, breastfeeding can be continued for up to 2 years and later.	

Source: WHO

Intervention attributes

Type of interventions & delivery platform

Table 1: Type of interventions & delivery platform

Intervention	Type	Delivery platform
4. Promotion of breastfeeding	Promotion	Community

Equity

In addition to considerations like cost-effectiveness and health systems factors, dimensions of equity can be relevant for priority setting. The opportunity for a long and healthy life varies according to the severity of a health condition that individuals might have, so there are inequities in individuals' opportunities for long and healthy lives based on the health conditions they face. Metrics used to estimate the severity of illness at an individual level can be used to help prioritize those with less opportunity for lifetime health. FairChoices: DCP Analytics Tool uses Health adjusted age of death (HAAD), which is a metric that estimates the number of years lived from birth to death, discounting years lived with disability. A high HAAD thus represents a disease less severe in terms of lifetime health loss, while a low HAAD represents a disease that is severe on average, causing early death or a long period of severe disability. It is also possible to estimate the distribution of HAAD across individuals with a health condition. FairChoices shows for each intervention an average HAAD value of the conditions that are affected by respective interventions that have health effects. Additionally, a plot shows HAAD values for around 290 conditions (Johansson KA et al 2020).

Time dependence

High to moderate level of urgency, depends on several factores around birth

Population in need of interventions

Table 2: Population in need of interventions

Intervention	Treated population		Affected population		Disease state adressed
	Treated age	Treated fraction	Affected age	Affected fraction	
Promotion of breastfeeding	Pregnancy	1(All pregnant women)	0 to 5 years (Newborns and children up to five years dependent of condition)	Those with the condition: According to Henriksen et al. All newborns and children up to five years are affected wich is equal to 1 (Unpublished work in progress)	Neonatal preterm birth

Disease stage addressed

This intervention aims to prevent or delay diarrhea cases in newborns.

Intervention effectiveness and safety

Table 3: Effectiveness and safety of breastfeeding during the first months

Outcome adressed by intervetion& its effect		Certainty of evidence
Mortality Lassi 2020 et al. found that **breastfeeding** had a relative risk of 0.76 on diarrhea cases (95% CI: 0.67 to 0.85) when breastfeeding education was implemented versus no intervention	Lassi 2020 et al. reports that community based interventions for exclusive breastfeeding before six months demonstrates most significant results wich is in accordance with other guidelines. The efficacy due to reduction of diarrheal cases is based on studies before neonates is turning 6 months	⊕⊕⊕⊖ High

Model assumptions

Table 4: Summary of model parameters and values used in FairChoices – DCP Analytical Tool

Category	Model parameter	Notes
Intervention	**Promotion of breastfeeding**	
Cost calculation		
Treated population	Pregnant women	Global Burden of Disease study
Treated gender	female	
Treated fraction age	10 to 54 years	
Treated fraction	1	
Effect calculation		
Affected Population	Newborns and children up to five years	
Affected gender	Both genders	
Affected fraction age	0 to 5 years	
Affected fraction	1	
Comparison	No intervention	
Mortality Reduction (RRR)	0.24	

Intervention Cost

The total unit cost is estimated to be USD 1.90 (Year: 2020) per woman per case for the promotion of breastfeeding by a community health worker according to *Henriksen et al. (Work in progress)*

References

World Health Organization G. Breastfeeding . Available from: https://www.who.int/health-topics/breastfeeding#tab=tab_2.

Lassi, Z. S., Rind, F., Irfan, O., Hadi, R., Das, J. K., & Bhutta, Z. A. (2020). Impact of infant and young child feeding (IYCF) nutrition interventions on breastfeeding practices, growth and mortality in low-and middle-income countries: systematic review. Nutrients, 12(3), 722.

Henriksen ES, Økeland J, Malawim O, Said S, Kaur G, Rava` MS, et al. Economic evaluation of nutritional interventions in Zanzibar: An analysis using FairChoices – DCP analytic tool.(Work in progress)

Appendix

Literature Review for effectiveness & safety

This literature search is an example of level 3 evidence for intervention inputs taken from DCP3.

Level of evidence of efficacy studies:

1. Low (expert opinions, case series, reports, low-quality case control studies)

2. Moderate (high quality case control studies, low quality cohort studies)

3. High (high quality cohort studies, individual RCTs)

4. Very high (Multiple RCTs, metaanalysis, systematic reviews, clinical practice guidelines)

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An overview of all NUTR interventions in FairChoices-DCP analytical tool (Interventions assessed in this evidence brief are marked in bold)

NUTR01-01	Daily Iron Folic acid supplementation (pregnant women)
NUTR01-02	Calcium supplementation, pregnancy
NUTR01-03	Food and caloric supplementation to pregnant women in insecure households
NUTR01-04	**Promotion of breastfeeding and/ or complementary feeding**
NUTR01-05	Intermittent Iron-folic acid supplementation (Menstruating women)
NUTR01-06	Food to non-pregnant women in insecure households
NUTR01-02-01-01	Daily iron supplementation for children 6 to 23 months
NUTR01-02-01-02	Daily iron supplementation in children health center
NUTR01-02-02	Intermittent iron supplementation in children (24 -59 months)
NUTR01-02-03	Vitamin A supplementation to children 6 to 59 months
NUTR01-02-04	Zink to children 6 to 59 months
NUTR01-02-05	Food to children in insecure households
NUTR01-03-01	Management of severe acute malnutrition without medical complications
NUTR01-03-02	Management of severe acute malnutrition associated with medical complications