

9–11 months, and 12–23 months of age received 77%, 63%, and 44% of their energy from breast milk, respectively (52). Data from LMICs suggests that between 15 and 18 months of age, breast milk provides approximately 70% of a child's vitamin A requirements, 40% of their calcium requirements, and 37% of their riboflavin requirements (54). Breast milk is also an important source of choline and omega-3 fatty acids, such as docosahexaenoic acid (DHA) and alpha-linolenic acid, nutrients critical for brain development and function (55, 56). These nutritional qualities of breast milk are particularly important in resource-poor settings where the predominant complementary foods are starchy staples.

During the second year of life, breast milk continues to provide immune protection to the child through its large array of non-nutritive substances, which include immunoglobulins, hormones, proteins, human milk oligosaccharides, white blood cells, anti-microbial peptides, cytokines, chemokines, micro RNAs and commensal bacteria (57). Such protection is particularly important in settings where environmental hygiene is poor. Several studies have shown that, whereas appetite for other foods decreases during illness, energy intake from breastfeeding is not affected. Hence, breast milk is an important source of nutrition when children are ill (58, 59).

Breastfeeding is also thought to influence short- and long-term maternal health outcomes (60, 61). In the absence of modern contraception, continued breastfeeding contributes to birth spacing in the absence of hormones that are necessary for ovulation. Over a longer period, breastfeeding may contribute to reduced risk of some cancers, type 2 diabetes, and cardiovascular disease (61). There have also been studies on continued breastfeeding and maternal bone mineral density, depression and weight status.

Although the rates of continued breastfeeding vary widely globally, they generally drop precipitously in the second year of life. Based on the Global Breastfeeding Scorecard (62) using data primarily from LMICs, 70% of children 12–15 months old are breastfed, compared

to only 45% of children at 20–23 months. In Europe, the percentage of children breastfed at one year of age ranges from 1% in Tajikistan to 78% in Uzbekistan, with a median of 28% (63).

WHO and UNICEF have long recommended continued breastfeeding, along with complementary foods, for 2 years or beyond (17). Most national recommendations in LMICs are aligned with the WHO and UNICEF recommendation. For example, the Ministries of Health of Brazil and Kenya both recommend that children be breastfed for 2 years or more (64, 65). The American Academy of Pediatrics, which previously called for 12 months of breastfeeding, now supports continued breastfeeding “as long as mutually desired” for 2 years or beyond (66).

3.1.3 Evidence

The systematic review identified a total of 146 studies, of which 93 provided data on outcomes in infants and young children and 54 provided data on outcomes in breastfeeding mothers. However, for some outcomes only one or two studies were available.

Compared to breastfeeding in the second year versus no breastfeeding during this period, the systematic review found no evidence of any reduced or increased risk of developmental delay (OR = 1.15 [0.54, 2.43]), mean intelligence quotient (IQ) scores (SMD = -0.01 [-0.06, 0.08]), or highest school grade achieved (MD = 0.02 [-0.19, 0.23]). The evidence was graded as very low certainty for all outcomes.

Compared to breastfeeding in the second year versus no breastfeeding during this period, very low certainty evidence found higher cumulative odds of underweight (OR = 1.25 [1.08, 1.46]) and wasting (OR = 2.16 [1.18, 3.98]), although the review noted that this association may be the result of confounding, whereby children's poor growth leads to longer breastfeeding. Although not statistically significant, continued breastfeeding in the second year compared to no breastfeeding was suggestive of increased odds of stunting (OR = 1.87 [0.95, 3.68]) though not of