

ADDENDUM TO THE 2006 HONDURAS DEMOGRAPHIC AND HEALTH SURVEY

INFANT AND YOUNG CHILD FEEDING (IYCF) PRACTICES

Appropriate Infant and Young Child Feeding (IYCF) practices include breastfeeding through the age of two years, the introduction of solid and semisolid foods at age 6 months, and a gradual increase in the amount of food given and the frequency of feeding as the child gets older. The average, healthy **breastfed child** should receive solid and semisolid foods 2-3 times per day at age 6-8 months and 3-4 times per day at age 9-23 months, with an additional snack 1-2 times per day. The minimum frequencies for feeding children in developing countries are based on the energy output of complementary foods. The energy needs of children are based on age-specific total daily energy requirements, plus 2 SD (to cover almost all children), minus the average energy intake from breast milk. Infants with low breast-milk intake need to be fed more frequently than those with high breast-milk intake. However, care should be taken that feeding frequencies do not exceed recommended input from complementary foods because excessive feeding can result in displacement of breast milk (PAHO/WHO, 2003).

Although the World Health Organization recommends that infants be breastfed up to the age of two years, some infants are not breastfed at all, or stopped breastfeeding before their second birthday. Guidelines have been developed for these children, who may not have been breastfed because their mother was HIV-positive, or because their mother had died, or for other reasons (WHO, 2005). It is recommended that the **nonbreastfed child** be given solid and semisolid foods 4-5 times per day at age 6-23 months, with an additional snack 1-2 times per day.

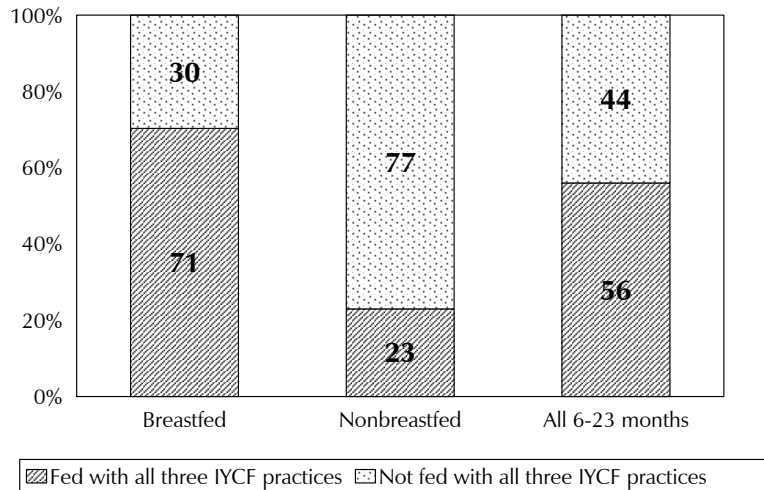
Appropriate nutrition includes feeding children a variety of foods to ensure that nutrient requirements are met. Studies have shown that plant-based complementary foods by themselves are not sufficient to meet the needs of some children for certain micronutrients (WHO/UNICEF, 1998). Therefore, it is advised that children eat meat, poultry, fish, or eggs daily, or as often as possible. Vegetarian diets may not meet children's nutrient requirements unless supplements or fortified foods are also provided. Vitamin A-rich fruits and vegetables should be consumed daily, and the diets of children should include an adequate amount of fat. Fat is important in the diets of infants and young children because it provides essential fatty acids, facilitates absorption of fat-soluble vitamins (such as vitamin A), and enhances dietary energy density and palatability. Tea and coffee are not recommended for children because they contain compounds that inhibit iron absorption. Sugary drinks and excessive juice consumption should be avoided because other than energy they contribute little to the diet and decrease the child's appetite for more nutritious foods (PAHO/WHO, 2003).

In summary,

- Breastfed children age 6-23 months should receive animal-source foods and vitamin A-rich fruits and vegetables daily (PAHO/WHO, 2003). Because first foods almost always include a grain- or tuber-based staple, it is unlikely that young children who eat less than three food groups will receive both an animal-source food and a vitamin A-rich fruit or vegetable. Therefore, three food groups are considered the minimum number appropriate for breastfed children (Arimond and Ruel, 2004).
- Breastfed infants age 6-8 months should receive complementary foods 2-3 times per day, with 1-2 snacks; breastfed children age 9-23 months should be receive meals 3-4 times per day, with 1-2 snacks (PAHO/WHO, 2003). The table below shows the percentage of breastfed children who were fed at least the minimum number of times per day for their age (i.e., twice for infants age 6-8 months and three times for children age 9-23 months).
- Nonbreastfed children age 6-23 months should receive milk or milk products to ensure that their calcium needs are met. In addition, they need animal-source foods and vitamin A-rich fruits and vegetables. Four food groups are considered the minimum number appropriate for nonbreastfed young children.
- Nonbreastfed children age 12-23 months should be fed meals 4-5 times per day, with 1-2 snacks (WHO, 2005). The table shows the percentage of nonbreastfed children age 6-23 who were fed at least the minimum number of times per day (i.e., four times).

According to the results presented in the table below, 97 percent of (youngest) Honduran children age 6-23 months living with the mother received breast milk or breast milk substitutes during the 24-hour period before the survey, 85 percent had an adequately diverse diet—i.e., they had been fed foods from the appropriate number of food groups depending on their age and breastfeeding status—and 61 percent had been fed the minimum standard number of times appropriate for their age. Feeding practices for about more than half of the children age 6-23 months in Honduras met the minimum standard with respect to all three of these feeding practices (see figure below).

Infant and Young Child Feeding (IYCF) Practices, Honduras 2006



Breastfed children were twice more likely to be fed the minimum number of times and slightly less likely to receive foods from the minimum number of groups than nonbreastfeeding children. Breastfeeding children were three times more likely to comply with the recommended IYCF practices compared with the nonbreastfeeding children (71 percent compared with 23 percent). Children 6-23 months of age residing in Intibuca region were most likely to follow the recommended feeding practices (69 percent) compared with children residing in Olancho region, who were least likely to follow the feeding guidelines (45 percent). Variations in the IYCF feeding practices based on other socioeconomic and demographic determinants were minimal in Honduras.

Arimond, M., and M.T. Ruel. 2004. Dietary Diversity is Associated with Child Nutritional Status: Evidence from 11 Demographic and Health Surveys. *Journal of Nutrition* 134: 2579.

Pan-American Health Organization and World Health Organization (PAHO/WHO). 2003. *Guiding Principles for Complementary Feeding of the Breastfed Child*. Washington, D.C. and Geneva, Switzerland: PAHO/WHO.

World Health Organization (WHO). 2005. *Guiding Principles for Feeding Nonbreastfed Children 6 to 24 Months of Age*. Geneva, Switzerland: WHO.

World Health Organization and United Nations Children’s Fund (WHO/UNICEF). 1998. *Complementary Feeding of Young Children in Developing Countries: A Review of Current Scientific Knowledge*. Geneva: World Health Organization, WHO/NUT98.1.

Appendum Table: Infant and young child feeding (IYCF) practices in Honduras

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based upon number of food groups and times they are fed during the day or night preceding the survey by breastfeeding status and background characteristics, Honduras 2006

Background characteristic	Among breastfed children 6-23 months, percentages fed:				Among nonbreastfed children 6-23 months, percentage fed:				Among all children 6-23 months, percentage fed:					
	3+ food groups ¹	Minimum times or more ²	Both 3+ food groups and minimum times or more	Number of children (weighted)	Milk or milk products ³	4+ food groups	4+ times or more	With 3 IYCF practices ⁴	Number of children (weighted)	Breast milk or milk products	3+ or 4+ food groups ⁵	Minimum times or more ⁶	With all 3 IYCF practices	Number of children (weighted)
Age														
6-8	64.1	74.3	60.5	456	97.4	45.4	14.5	9.8	90	99.6	61.0	64.4	52.1	547
9-11	87.2	70.8	66.1	406	96.4	82.8	16.9	14.7	110	99.2	86.3	59.3	55.1	516
12-17	89.9	79.6	75.4	681	95.5	93.5	25.7	24.5	286	98.7	91.0	63.7	60.4	968
18-23	92.0	81.8	77.4	421	85.5	92.2	30.0	27.0	402	92.9	92.1	56.5	52.8	823
Sex														
Male	83.3	78.7	71.5	977	89.8	86.9	24.5	21.8	452	96.8	84.5	61.6	55.8	1,429
Female	84.3	75.4	69.4	988	92.9	86.5	26.4	24.1	437	97.8	85.0	60.4	55.5	1,425
Residence														
Urban	83.8	76.1	69.6	726	96.3	86.2	26.5	24.7	475	98.6	84.7	56.5	51.8	1,201
Rural	83.8	77.6	71.0	1,238	85.5	87.2	24.3	20.9	414	96.4	84.7	64.2	58.4	1,652
Region														
Atlántida	89.2	74.9	69.8	77	(89.0)	(84.1)	(35.3)	(35.3)	41	96.2	87.4	61.2	57.8	118
Colón	89.7	80.1	79.6	73	92.9	93.2	27.3	26.1	41	97.4	91.0	61.1	60.3	114
Comayagua	79.2	73.5	70.1	125	90.8	90.6	29.6	26.9	56	97.2	82.7	60.0	56.8	181
Copán	72.0	73.8	62.2	120	(76.0)	(75.8)	(14.3)	(9.4)	34	94.7	72.8	60.1	50.6	154
Cortés	85.1	85.4	77.2	316	97.2	87.8	22.7	20.9	216	98.9	86.2	60.0	54.4	532
Choluteca	85.3	78.9	69.0	107	(83.5)	(95.0)	(32.5)	(29.9)	39	95.6	87.9	66.4	58.5	146
El Paraiso	82.9	66.9	63.8	105	(94.1)	(85.7)	(36.9)	(32.9)	41	98.4	83.7	58.5	55.2	146
Francisco Morazan	85.2	75.1	70.6	274	97.2	88.7	30.9	27.8	161	99.0	86.5	58.7	54.8	435
Intibucá	82.6	84.9	76.7	90	(73.1)	(84.1)	(39.4)	(27.7)	16	95.9	82.9	78.0	69.3	106
La Paz	88.7	81.8	75.1	69	(80.2)	(77.0)	(20.4)	(17.9)	12	97.2	87.0	73.0	66.9	80
Lempira	84.2	81.2	72.5	126	(70.5)	(86.7)	(19.8)	(16.8)	21	95.8	84.5	72.6	64.7	147
Ocoatepeque	80.6	74.5	69.0	38	(93.7)	(89.3)	(5.4)	(5.4)	14	98.3	82.9	56.1	52.0	52
Olancho	84.5	65.8	60.6	132	86.2	82.1	10.7	10.7	61	95.7	83.7	48.5	44.9	193
Santa Bárbara	85.8	76.3	69.7	110	(91.2)	(95.7)	(17.0)	(14.8)	47	97.3	88.8	58.5	53.2	157
Valle	83.7	77.2	69.1	45	(91.5)	(82.5)	(22.9)	(22.9)	17	97.6	83.4	62.1	56.3	63
Yoro	82.7	75.1	67.0	157	86.7	75.8	27.8	23.7	73	95.8	80.5	60.1	53.3	230
Mother's education														
No education	73.4	68.3	57.7	194	66.6	70.1	15.9	8.0	51	93.1	72.7	57.5	47.4	245
Primary	84.9	76.9	71.0	1,412	89.0	86.0	24.3	21.4	531	97.0	85.2	62.5	57.4	1,943
Secondary	85.6	82.5	75.5	324	99.2	90.0	26.2	25.7	250	99.7	87.5	58.0	53.8	574
More than secondary	(80.6)	(79.4)	(73.6)	34	(100.0)	(93.8)	(41.1)	(38.6)	56	100.0	88.8	55.5	51.7	90
Wealth quintile														
Lowest	83.0	75.2	68.3	585	77.3	88.5	25.1	19.7	118	96.2	83.9	66.8	60.2	703
Second	81.4	77.6	70.4	441	81.8	86.6	24.2	23.1	146	95.5	82.7	64.3	58.6	587
Middle	86.1	74.9	70.8	384	90.8	88.3	23.9	19.4	199	96.9	85.8	57.5	53.3	583
Fourth	87.5	79.9	73.6	355	99.1	88.1	24.0	22.7	199	99.7	87.7	59.8	55.3	554
Highest	80.6	80.3	70.4	200	98.2	85.9	29.0	27.8	227	99.0	83.4	53.0	47.8	427
Total	83.8	77.0	70.5	1,964	91.3	86.7	25.4	22.9	889	97.3	84.7	61.0	55.7	2,853

Note: Figures in parentheses are based on 25-49 unweighted cases.

¹ Food groups: a) infant formula, milk other than breast milk, cheese or yogurt or other milk products; b) foods made from grains, roots, and tubers, including porridge and, fortified baby food from grains; c) vitamin A-rich fruits and vegetables (and red palm oil); d) other fruits and vegetables; e) eggs; f) meat, poultry, fish, and shellfish (and organ meats); g) legumes and nuts; h) foods made with oil, fat, butter.

² At least twice a day for breastfed infants age 6-8 months and at least three times a day for breastfed children age 9-23 months

³ Includes commercial infant formula, fresh, tinned and powdered animal milk, and cheese, yogurt and other milk products

⁴ Nonbreastfed children age 6-23 months are considered to be fed with three IYCF practices if they receive other milk or milk products and are fed at least the minimum number of food groups, at least the minimum number of times per day.

⁵ 3+ food groups for breastfed children and 4+ food groups for nonbreastfed children

⁶ Fed solid or semisolid food at least twice a day for infants age 6-8 months, 3+ times a day for other breastfed children, and 4+ times a day for nonbreastfed children