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World Breastfeeding Week 2012

Understanding the Past – Planning the Future

Celebrating 10 years of WHO/UNICEF's Global Strategy for Infant and Young Child Feeding

Introduction

The 10th anniversary of the Global Strategy for Infant and Young Child Feeding provides an opportunity to assess the progress towards implementation by WHO Member States in Latin America and the Caribbean. It also provides an opportunity to examine countries' breastfeeding and complementary feeding practices. This policy brief, which analyzes effects of the policies and programs on breastfeeding practices, shows that implementation of the Global Strategy is associated with positive trends in exclusive breastfeeding over the past 10 to 20 years. **The results are clear: investing in protecting, promoting and supporting breastfeeding though implementation of the Global Strategy may lead to increases in exclusive breastfeeding!**

Adopted by the World Health Assembly and the UNICEF Executive Board in 2002, the Global Strategy recognized that *"Malnutrition has been responsible directly or indirectly for 60% of the 10.9 million deaths annually among children under five. Well over two-thirds of these deaths, which are often associated with inappropriate feeding practices, occur during the first year of life. No more than 35% of infants worldwide are exclusively breastfed for the first four months of life; complementary feeding frequently begins too early or too late, and foods are often nutritionally inadequate or unsafe. Malnourished children who survive are more often sick and suffer life-long consequences of impaired development. Because poor feeding practices are a major threat to social and economic development, they are among the most serious obstacles to attain and maintain health that face this age group."(1)*

To address these problems, the Global Strategy set forth nine operational targets related to both breastfeeding and complementary feeding. The first four targets reaffirm the relevance of the operational targets of the Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding[1]:

- Appoint a national breastfeeding coordinator and establish a multisectoral national breastfeeding committee.
- Ensure that every facility providing maternity services fully practices all the "Ten steps to successful breastfeeding."
- Give effect to the principles and aim of the International Code of Marketing of Breast-milk Substitutes and related World Health Assembly resolutions (Code).
- Enact imaginative legislation to protect the breastfeeding rights of working women.

The second five targets more broadly address breastfeeding, complementary feeding and feeding in difficult circumstances such as during emergencies or in the context of HIV/AIDS.

[1] Meeting in Florence, Italy, in July 1990, government policy makers from more than 30 countries adopted the Innocenti Declaration. The 44th World Health Assembly, in 1991, welcomed the Declaration as "a basis for international health policy and action" and requested the Director-General to monitor achievement of its targets (resolution WHA44.33).

- Develop, implement, monitor and evaluate a comprehensive policy on infant and young child feeding.
- Ensure that the health and other relevant sectors protect, promote and support exclusive breastfeeding for six months and continued breastfeeding up to 2 years of age or beyond.
- Promote timely, adequate, safe and appropriate complementary feeding with continued breastfeeding.
- Provide guidance on feeding infants and young children in exceptionally difficult circumstances.
- Consider new legislation or other measures to give effect to the principles and aim of the Code.

Assessing implementation progress

To assess progress in the implementation of the Global Strategy, the WHO developed a tool for assessing national practices, policies and programs in support of infant and young child feeding (2). It is designed to help users assess the strengths and weaknesses of policies and programs for protecting, promoting and supporting optimal feeding practices in their local setting and determine where improvements may be needed to meet the aims and objectives of the Global Strategy. Inspired by this tool, the International Baby Food Action Network (IBFAN) of Asia developed the World Breastfeeding Trends Initiative (WBT*i*) to track, assess and monitor infant and young child feeding practices, policies and programs worldwide in support of breastfeeding and complementary feeding (3, 4). The WBT*i* focuses on a set of 15 indicators. The first 10 address the general infant and young child feeding environment, focusing largely on the breastfeeding environment. The second five address infant and young child feeding practices (Box).

For each indicator, a list of key criteria and a subset of questions to consider in assessing implementation progress and to assign a score is defined. The maximum score for each indicator is 10 points, for a possible total score of 150 points; 100 for indicators related to the general environment for infant and young child feeding and 50 for indicators related to breastfeeding and complementary feeding practices.

To date, WBT*i* has been carried out in 12 countries in Latin America: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Mexico, Nicaragua, Peru and Uruguay. (For the full reports see *www.ibfan-alc.org/WBTi/index.html*) Adjusted WBT*i* scores based on the 10 indicators related to policies and programs range from 31 to 76 (Table 1). For these 12 countries, the lowest average scores are for the indicators of feeding and HIV (3.6) and

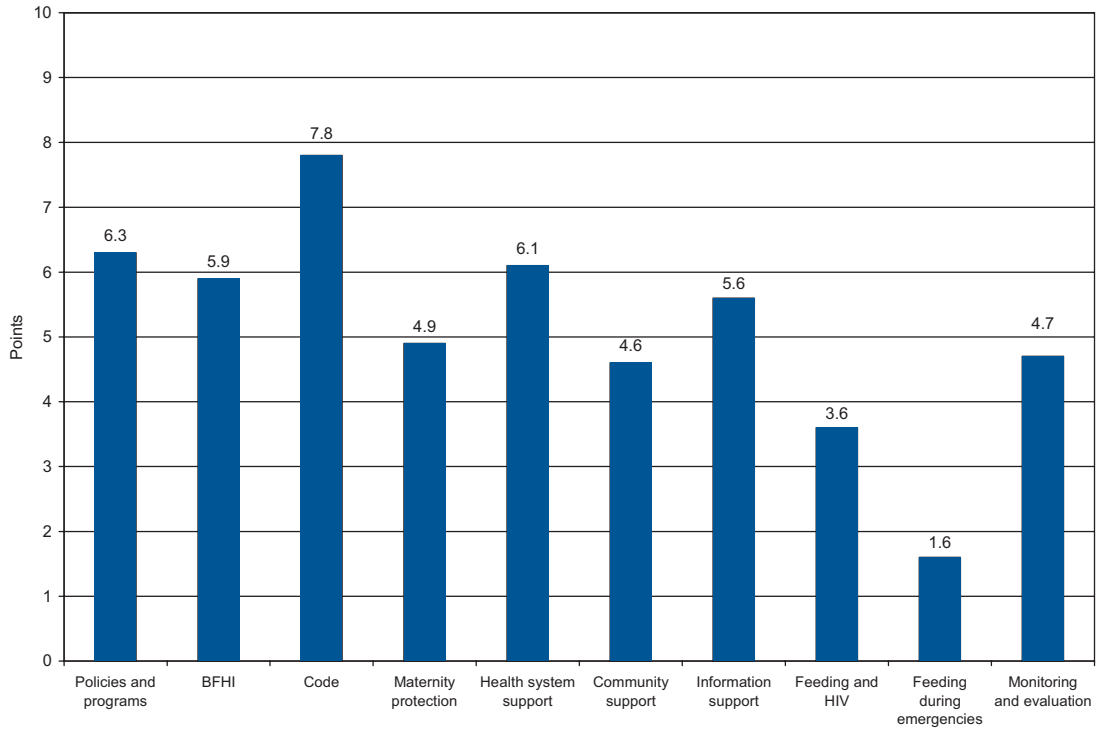
World Breastfeeding Trends Initiative (WBT*i*) indicators

1. National Policy, Program and Coordination
2. Baby Friendly Hospital Initiative (Ten Steps to Successful Breastfeeding)
3. Implementation of the International Code of Marketing of Breast-milk Substitutes and relevant WHA resolutions
4. Maternity Protection
5. Health and Nutrition Care System (in support of breastfeeding and infant and young child feeding)
6. Mother Support and Community Outreach-Community-based support for the pregnant and breastfeeding mother
7. Information Support
8. Infant Feeding and HIV
9. Infant Feeding During Emergencies
10. Mechanisms of Monitoring and Evaluation Systems
11. Percentage of babies' breastfed within one hour of birth
12. Percentage of babies less than 6 months of age exclusively breastfed in the last 24 hours
13. Babies are breastfed for a median duration of how many months
14. Percentage of breastfed babies less than 6 months old receiving other foods or drink from bottles
15. Percentage of breastfed babies receiving complementary foods at 6 to 9 months of age

Table 1. World Breastfeeding Trends Initiative (WBTi) policy and program indicators

Country	Indicator										Adjusted score (1-10)
	1	2	3	4	5	6	7	8	9	10	
	Policies and programs	BFHI	Code	Maternity protection	Health system support	Community support	Information support	Feeding and HIV	Feeding during emergencies	Monitoring and evaluation	
Argentina	4	6.5	8	4	7.5	4	8	2	3	4	51.0
Bolivia	10	4	8	3	6	6	4	1.5	0	9	51.5
Brazil	9	2.5	10	7.5	5	1	8	5	0	5	53.0
Colombia	5.5	5.5	7	4	9.5	5	8	3.5	0	2	50.0
Costa Rica	10	7.5	10	9	6.5	9	9	4	4	7	76.0
Dominican Republic	3	6.5	10	2.5	5	3	3	2.5	0	2	37.5
Ecuador	5	6.5	7	6	5	4	5	3	2	4	47.5
Guatemala	7	5	8	3	4	3	6	2.5	1	6	45.5
Mexico	2	5	7	3.5	5	4	1	3.5	0	0	31.0
Nicaragua	9	8.8	7	7	9	8	8	5.5	7	6	75.0
Peru	5	6	8	4.5	4.5	2	2	3.5	2	5	42.5
Uruguay	6.5	7.5	4	5	6	6	5	6.5	0	6	52.5

Figure 1. Points for each indicator of the World Breastfeeding Trends Initiative (WBT*i*) for 12 Latin American countries, 2008-2010



feeding during emergencies (1.6). The three highest average scores are for the Code (7.8), policies and programs (6.3) and health system support (6.1) (Figure 1).

Globally, a total of 40 countries have carried out a WBT*i*. Among these, 25 also have nationally representative data on trends in exclusive breastfeeding and breastfeeding duration over a 10 to 20 year period, including eight countries in Africa, seven in Asia, nine in Latin America (Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, Guatemala, Mexico, Nicaragua, and Peru) and one in the Middle East.

Assessing global changes in breastfeeding practices

Data from these 25 countries show that while breastfeeding duration at the first survey largely explains breastfeeding duration at the last survey (Figure 2), there are a few notable exceptions. One of these is Brazil, where the median dura-

Figure 2. Correlation between breastfeeding duration (months) at first and last survey

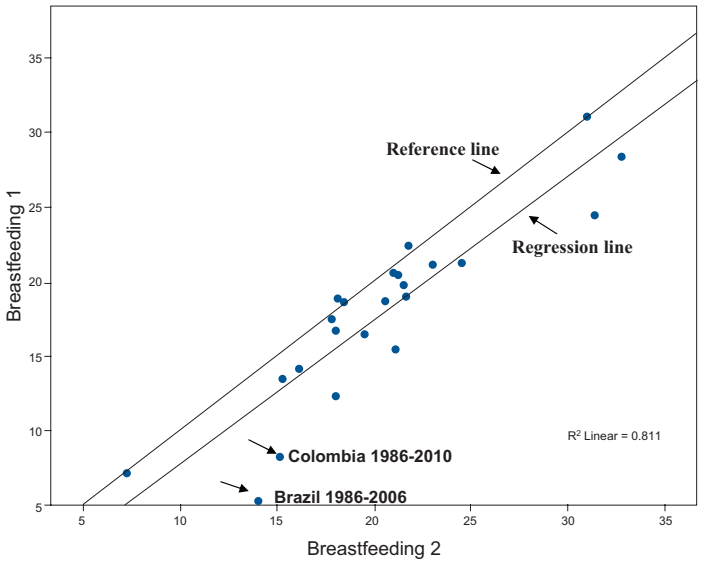
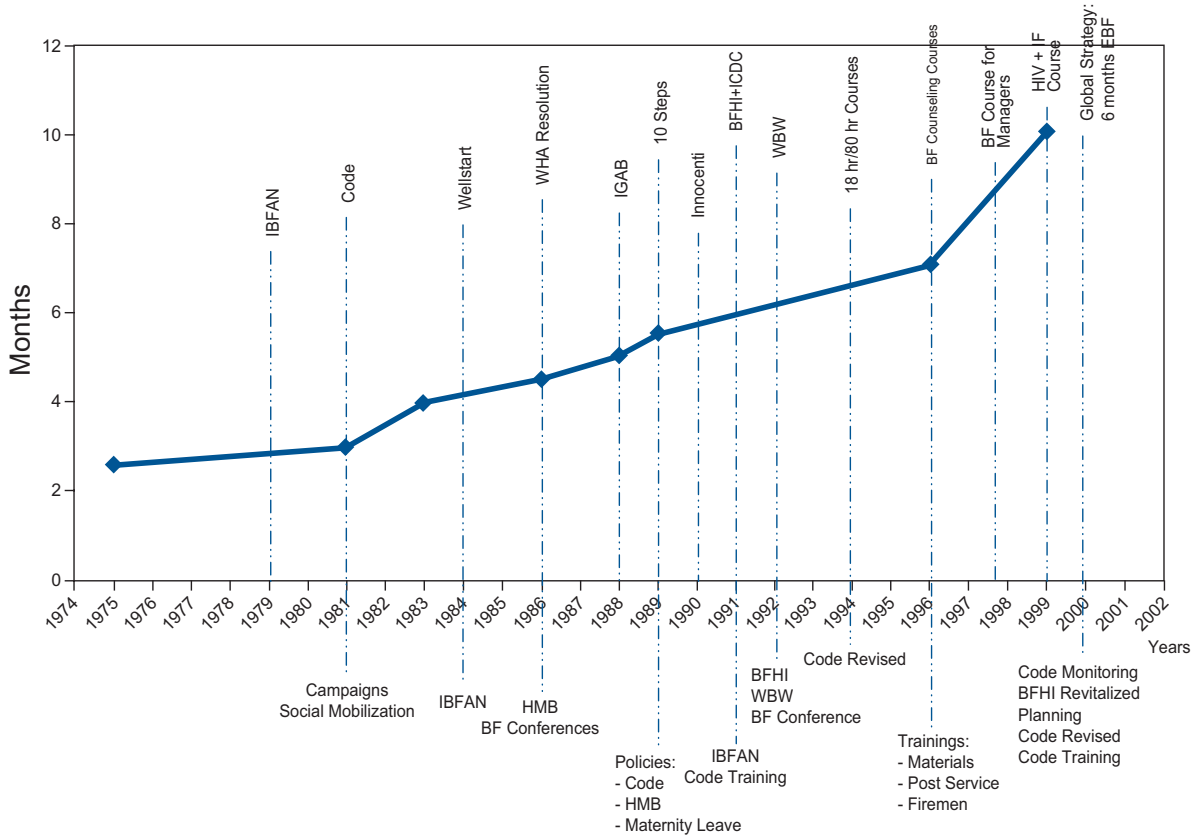


Figure 3. Median breastfeeding duration (months) and global and national breastfeeding activities: Brazil 1974-2002[3]



[3] Translated into English from Rea MF. A review of breastfeeding in Brazil and how the country has reached 10 months' breastfeeding duration. Cad Saude Publica. 2003;19 Suppl 1:S37-45.

tion of breastfeeding increased from 5.2 months in 1986 to 14 months in 2006. During this same period, exclusive breastfeeding increased from 2.5% to 38.6%. This remarkable increase coincides with new policies and programs put into place during the period with (Figure 3). Another standout is Colombia, where breastfeeding duration increased from 8.5 months to 14.9 months between 1986 and 2010, and exclusive breastfeeding increased from 15.4% to 46.8%.

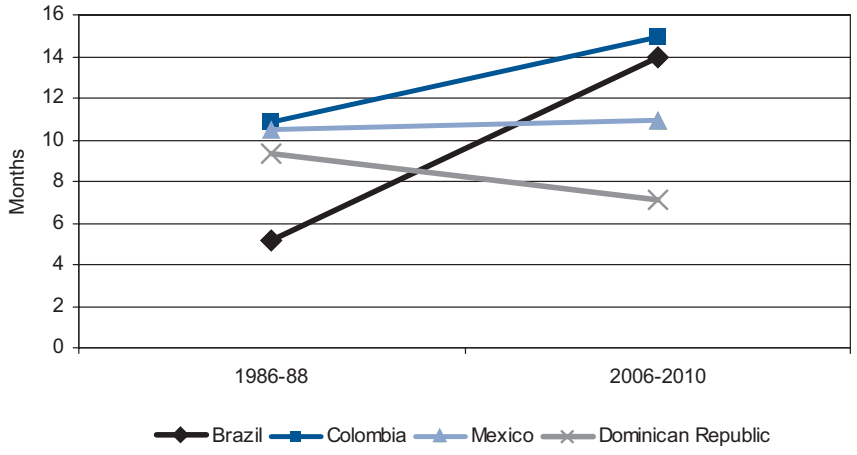
The progress in breastfeeding practices in Brazil and Colombia contrasts sharply with several other countries in Latin America where, over a similar period of time, little progress has been made (Figure 4). In the Dominican Republic, exclusive breastfeeding increased only 0.7 percentage points, from 7% to 7.8%, over a 16-year period. During the same period, breastfeeding duration declined from 9.3 months to 7.1 months. In Mexico, breastfeeding duration Orly increased from 9.5 months to 10.4 months between 1987-1988 and 2006. Nevertheless, the large gains observed in many other countries are impressive given the concurrent increase in urbanization, female education and employment, which are traditionally associated with less breastfeeding (5).

In contrast to the strong correlation between initial and later breastfeeding duration, there is only a weak correlation (0.09) between initial and later exclusive breastfeeding (Figure 5). This suggests that, between the first and last surveys, changes occurred in social or cultural factors and/or in policies and programs that led to changes in exclusive breastfeeding practices. One possible explanation is that policies and programs have focused on exclusive breastfeeding, which public health officials prioritize in promotion efforts because of its very large effect on infant morbidity and mortality (6).

Assessing the relationship between implementation of the Global Strategy and global changes in breastfeeding practices

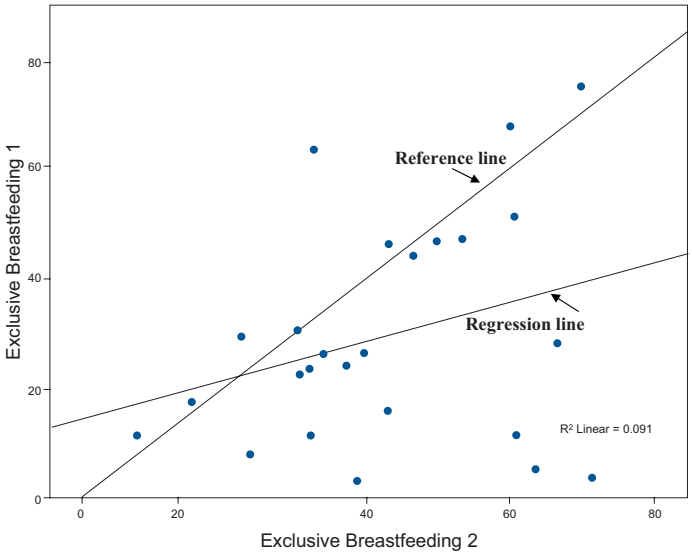
Regression analysis using an adjusted WBT*i*, score, which sums the first eight indicators, shows that current exclusive breastfeeding is significantly associated with initial exclusive breastfeeding[2]. It is also significantly associated with the adjusted WBT*i* score using a one-sided t value, but not with other factors commonly associated with exclusive breastfeeding, such as place of residence, maternal employment, maternal education or gross national income price parity per capita (Table 2) (7). The analysis shows that for each change of 10 points in a WBT*i* score, an increase in exclusive breastfeeding of 6% would be expected. It is important to note that because the data are observational the analysis reflects only an association between trends in exclusive breastfeeding and the breastfeeding environment as measured by WBT*i*. Also, data on both exclusive breastfeeding trends and WBT*i* are only available for a limited number of countries, though they are fairly evenly distributed across Africa, Asia and Latin America. Nevertheless, this analysis is the first quantitative assessment of the relationship between policies and programs in support of breastfeeding and changes in breastfeeding practices. Strengthened by case studies (7), it suggests that the association between breastfeeding promotion and improved exclusive breastfeeding may be causal.

Figure 4. Changes in breastfeeding duration (months) among Brazil, Colombia, Mexico and the Dominican Republic



[2] The first eight WBT*i* indicators were used because implementation of the last two, infant feeding and HIV and infant feeding during emergencies that they did not contribute to the predicted change in exclusive breastfeeding.

Figure 5. Correlation between exclusive breastfeeding duration (%) at first and last survey



Factors for successful breastfeeding promotion policies and programs are well documented. They include implementation of the International Code of Marketing of Breast-milk Substitutes, the Baby Friendly Hospital Initiative, advocacy, training and education, community-based promotion and support, maternity legislation and workplace support, and communication and support for infant feeding in difficult circumstances (8).

Current breastfeeding and complementary feeding practices

Despite significant improvements in breastfeeding practices in many countries of Latin America and the Caribbean, a big gap still separates current practices from accepted breastfeeding recommendations (Table 3). Although early initiation could prevent about one-fifth of neonatal deaths (9), in only eight of the 14 countries with data are 50% or more of newborns put to the breast within one hour of birth. Although WHO recommends six months of exclusive breastfeeding, only in five of 19 countries does this apply to over half of infants. Few countries track bottle feeding, and of those that do, several show that the majority of children under 2 years of age received a bottle the previous day.

In general, complementary feeding has received far less attention than breastfeeding. Although only five countries in the region (Bolivia, Colombia, the Dominican Republic, Haiti, Honduras and Peru) have data on the new WHO/UNICEF indicators for assessing infant and young child feeding practices, they show a large gap between recommended and actual practices (10, 11) (Figure 6). Although most children received solid, semi solid or soft foods between 6.0 and 8.9 months of age, on average 18% did not. Minimum dietary diversity, defined as the proportion of children 6.0 to 24 months of age who received foods from four or more food groups during the previous day, ranged from 28% in Haiti to 81% in Peru. Minimum meal frequency, defined as two or more meals for breastfed infants 6.0 to 8.9 months and three or more meals for breastfed children 9.0 to 23.9 months of age or four meals or more for non breastfed children 6.0 to 23.9 months of age, ranged from 46% in Haiti to 78% in Peru. Lastly, minimum acceptable diet for breastfeed children, defined as the proportion of children 6.0 to 23.9 months of age who had at least the minimum dietary diversity and the minimum meal frequency the previous day ranged from only 16% in Haiti to 66% in Peru.

Regarding complementary feeding, Peru had the best indicators, while Haiti had the worst. Nonetheless, given the importance of complementary feeding between 6.0 and 24 months for healthy growth and prevention of undernutrition, the few countries with this information show a gap between actual and ideal practices. So few countries in the region have information on complementary feeding makes it difficult to develop sound policies and programs and track progress.

Table 2. Predictors of current exclusive breastfeeding by initial exclusive breastfeeding

Model	Unstandardized coefficients		Standardized coefficients		Significance
	B	Standard error	Beta	t	
(Constant)	-15.035	31.173		-.430	.673
Initial exclusive breastfeeding (%)	.615	.260	.725	2.366	.029
WBT*i* adjusted (1-8)	.973	.525	.595	1.853	.080*
Residence (urban, rural)	0.15	.321	.019	.048	.962
Paid maternal employment (yes, not)	-.335	.196	-.454	-1.713	.104
Maternal education (% with secondary level)	-.034	.205	.038	-.168	.869
Gross national income price parity per capita ($)	.002	.002	-.444	.973	.344

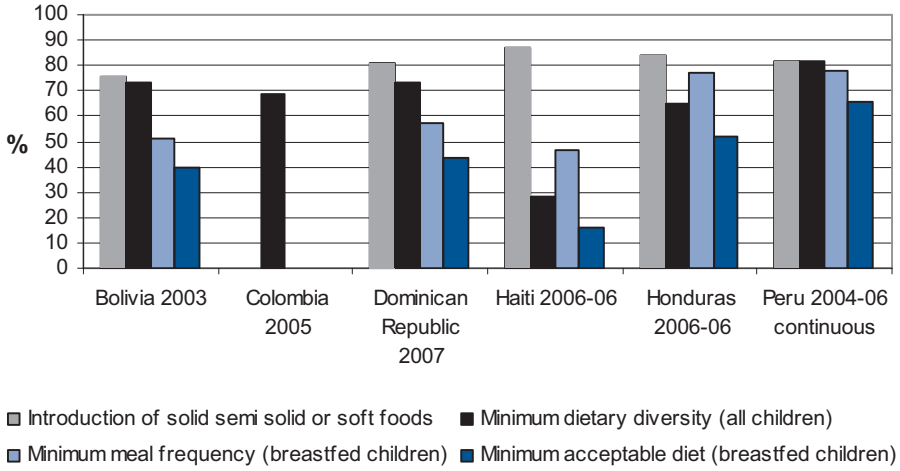
Dependent variable: Current exclusive breastfeeding; R square = 0.34; adjusted R square 0.12 *One-sided t test <0.05

Table 3. Breastfeeding and complementary feeding practices in Latin America and the Caribbean

Country	Indicator				
	1	2	3	4	5
	Early initiation (%)	Exclusive breastfeeding < 6 months (%)	Breastfeeding duration (months)	Bottle feeding < 23 months (%)	Complementary feeding 6-8 months (%)[1]
Argentina, 2010	NA[2]	55	NA	NA	NA
Bolivia, 2008	63.8	60.4	18.8	35.3	75.4 (2003)
Brazil, 2006	42.9	38.6	14.0	58.3	NA
Chile, 2008-10	NA	43.5	NA	NA	NA
Colombia, 2010	56.6	42.8	14.9	40.4	NA
Costa Rica, 2006-08	NA	53.1	14.0	86.4	NA
Cuba, 2006	70.2	26.4	NA	NA	NA
Dominican Republic, 2007	65.2	7.7 (E)[3]	7.1	84.9 (E)	81.1
Ecuador, 2004	26.4	39.6	14.7	NA	NA
El Salvador, 2008	32.8	31.4	18.7	20.6	NA
Guatemala, 2008-09	55.5	49.6	21.0	38.5	NA
Guyana, 2009	63.9	33.2	19.1	NA	NA
Haiti, 2005-06	44.3	40.7	18.8	20.3	87.4
Honduras, 2005-06	78.6	29.7	19.2	48.6 (E)	84.0
Mexico, 2006	NA	22.3	10.4	NA	NA
Nicaragua, 2006-07	54.0	30.6 (E)	18.4	NA	NA
Panama, 2009	NA	27.5	6.3	NA	NA
Paraguay, 2008	47.1	24.4	11.0	NA	NA
Peru, 2010	51.3	68.3	21.7	42.4	81.4 (2004-06)
Uruguay, 2006-07	60.0	57.1	7.1	NA	NA
Venezuela, 2006-08	NA	27.9	7.5	62.3	NA

[1] The definition for the new indicator for complementary feeding by WHO and partners (9) differs from that used in the WBIi reports and is only available for the countries listed.
[2] Not available.
[3] Estimated.
Source of data other than that of complementary feeding: OPS. Situación actual y tendencia de la lactancia materna en America Latina y el Caribe: Implicaciones políticas y programáticas. En preparación. 2012.

Figure 6. Complementary feeding practices in selected Latin American and Caribbean countries, 2003-2007



Conclusion

Although countries in Latin America have make remarkable progress in implementing the Global Strategy over the past 10 years, more needs to be done to ensure that all infants and young children benefit from optimal breastfeeding and complementary feeding. **This year's World Breastfeeding Week campaign, whose slogan is "Understanding the Past – Planning the Future" celebrates the 10th anniversary of the Global Strategy for Infant and Young Child Feeding. This is the perfect opportunity to reinvigorate efforts to fully implement all the Strategy's operational targets so that all infants and young children benefit from optimal breastfeeding and complementary feeding practices.**

References

1. WHO. Global Strategy for Infant and Young Child Feeding. Geneva: World Health Organization; 2003.
2. WHO. Infant and Young Child Feeding: A tool for assessing national practices, policies and programmes. Geneva: World Health Organization; 2003.
3. International Baby Food Action Network (IBFAN), Asia. World Breastfeeding Trends Initiative (WBTi). India: IBFAN; 2011.
4. Gupta R, Holla R, Dadhich JP, Suri S, Trejos M, Chanetsa J. The status of policy and programmes on infant and young child feeding in 40 countries. Health Policy and Planning 2012;doi:10.1093/heapol/czs061:1-20.
5. Chaparro CM, Lutter CK. Increases in breastfeeding duration observed in Latin America and the Caribbean and the role of maternal, demographic and healthcare characteristics. Food Nutr Bull. 2010;31:S117-27.
6. Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS, Bellagio Child Survival Study Group. How many child deaths can we prevent this year? Lancet. 2003;362:65-71.
7. Lutter CK, Morrow AL. Global trends in breastfeeding and implications for policy and programs. In preparation. 2012.
8. WHO, UNICEF, Academy for Educational Development, USAID, Africa's Health in 2010. Learning from large-scale community-based programmes to improve breastfeeding practices. Geneva: WHO; 2008.
9. Edmond KM, Zandoh C, Quigley MA, Amenga-Etego S, Owusu-Agyei S, Kirkwood BR. Delayed breastfeeding initiation increases risk of neonatal mortality. Pediatrics. 2006;117:380-6.
10. WHO and partners. Indicators for assessing infant and young child feeding practices. Part 1 Definitions. Geneva: World Health Organization; 2008.
11. WHO and partners. Indicators for assessing infant and young child feeding practices. Part 3: Country profiles. Geneva: World Health Organization; 2010.

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This policy brief was written for World Breastfeeding Week 2012 by Dr. Chessa Lutter, Senior Advisor Food and Nutrition, Pan American Health Organization. It is also available in French, Portuguese and Spanish. This brief and other material on infant and young child feeding are available at: *www.paho.org/alimentacioninfantil*.

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