To celebrate this year’s World Breastfeeding Week, the Pan American Health Organization calls for a look at the state of breastfeeding in the 21st century and how it relates to the Millennium Development Goals (MDGs), this year’s theme, as well as other developments including the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition approved by the World Health Assembly (WHA) in 2012 and the Second International Conference on Nutrition (ICN2), to be held by the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) in November 2014.

Several stakeholders are emphasizing the need for renewed investment in breastfeeding in a contemporary framework. The evidence of its benefits is compelling, while additional benefits are continually emerging. What is needed now is political leadership to protect, promote and support breastfeeding so that, among other things, mothers are free to breastfeed anytime and anyplace to benefit their health and that of their children, as well as society as a whole.

Breastfeeding and the Millennium Development Goals

The United Nations and governments set eight MDGs to be reached by 2015. Protection, promotion and support of exclusive and continued breastfeeding can contribute to all eight.

The World Health Organization recommends that infants are exclusively breastfed for 6 months and that breastfeeding continue with complementary foods for 2 years or more. However, in the Americas, practices are far from optimal as well as highly variable (Table). Although virtually all babies initiate breastfeeding at birth, the proportion less than 6 months of age who are exclusively breastfed ranges from a low of 7.7% to a high of 68.3%. The median duration of breastfeeding is equally variable, ranging from a low of 6 months to a high of 21.7 months. Countries that have made tremendous progress are starting to show evidence of stagnation while in others no progress and sometimes deterioration has been observed.

Figure. The contribution of breastfeeding to the Millennium Development Goals

1. Breastfeeding places no burden on the family budget. Feeding formula one child costs US $1500-$3000/year in the USA. In 2013, global sales of infant formula increased by nearly US $5 billion.

2. Adults who were breastfed as children score 2 to 5 points higher on cognitive development indicators. Breastfeeding is also associated with higher educational achievement.

3. Breastfeeding helps to reduce gender inequality since it gives both boys and girls the best start in life.

4. Breastfeeding in the first hour of life reduces the risk of dying in the first month by almost 20%.

5. Women who do not breastfeed have a 4% higher risk of breast cancer and a 27% higher risk of ovarian cancer. They are also at greater risk of hypertension and cardiovascular disease.

6. To maximize HIV-free survival, WHO recommends that health authorities endorse either breastfeeding while the mother or child receives ARVs since it reduces the risk of transmitting HIV and avoids the risks associated with formula feeding, or avoidance of all breastfeeding.

7. Human milk is a natural, renewable food that involves no packaging, transportation, or fuel to prepare. Every one million formula-fed babies consume 150 million containers of formula, many of which end up in landfills.

8. Promotes multisectoral partnerships as, for example, the celebration of WBW 2013 jointly with the launch of the Partnership for HIV Free Survival in six high-burden African countries.

Source: World Alliance for Breastfeeding Action (WABA), PAHO/WHO and SPRING.
Beyond the MDGs: BF in the 21st century

Two separate events are having an important role in shaping the nutrition agenda and breastfeeding is a component of both. The first is the World Health Assembly (WHA) 2012 Resolution on the Comprehensive Implementation Plan for Maternal, Infant and Young Child Nutrition and the second is the Second International Conference on Nutrition (ICN2) to be held by FAO and WHO in November this year.

The WHA Resolution on the Comprehensive Implementation Plan defined six voluntary targets to advance nutrition globally by 2025, one of which is to increase exclusive breastfeeding rates in the first six months up to at least 50% (Box 1).

The ICN2 draft declaration resulting from a preparatory meeting in 2013 proposes as targets the reduction of stunting, wasting and obesity. It defines a “commitment to action” which is “to enhance people’s nutrition, including people with special needs, through policies and initiatives for healthy diets throughout the life cycle.”

Beyond the MDGs: BF in the 21st century

<table>
<thead>
<tr>
<th>Country</th>
<th>Early initiation (%)</th>
<th>Exclusive breastfeeding &lt; 6 months (%)</th>
<th>Median duration of breastfeeding (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina, 2010</td>
<td>80.9</td>
<td>55.0</td>
<td>NA</td>
</tr>
<tr>
<td>Bolivia, 2008</td>
<td>63.8</td>
<td>60.4</td>
<td>18.8</td>
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<tr>
<td>Brazil, 2006</td>
<td>67.7</td>
<td>41.0</td>
<td>11.2</td>
</tr>
<tr>
<td>Chile, 2013</td>
<td>NA</td>
<td>48.4</td>
<td>NA</td>
</tr>
<tr>
<td>Colombia, 2010</td>
<td>56.6</td>
<td>42.8</td>
<td>14.9</td>
</tr>
<tr>
<td>Costa Rica, 2006-08</td>
<td>NA</td>
<td>53.1</td>
<td>14.0</td>
</tr>
<tr>
<td>Cuba, 2006</td>
<td>70.2</td>
<td>26.4</td>
<td>NA</td>
</tr>
<tr>
<td>Dominican Republic, 2007</td>
<td>65.2</td>
<td>7.7 (E)</td>
<td>7.1</td>
</tr>
<tr>
<td>Ecuador, 2011-13</td>
<td>54.6</td>
<td>43.8</td>
<td>15.0</td>
</tr>
<tr>
<td>El Salvador, 2008</td>
<td>32.8</td>
<td>31.5</td>
<td>18.7</td>
</tr>
<tr>
<td>Guatemala, 2008-09</td>
<td>55.5</td>
<td>49.6</td>
<td>21.0</td>
</tr>
<tr>
<td>Guyana, 2009</td>
<td>63.9</td>
<td>33.2</td>
<td>19.1</td>
</tr>
<tr>
<td>Haiti, 2012</td>
<td>46.7</td>
<td>39.7</td>
<td>17.1</td>
</tr>
<tr>
<td>Honduras, 2011-12</td>
<td>63.8</td>
<td>31.2</td>
<td>19.0</td>
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<tr>
<td>Mexico, 2012</td>
<td>NA</td>
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<td>10.4</td>
</tr>
<tr>
<td>Nicaragua, 2006-07</td>
<td>54.0</td>
<td>30.6 (E)</td>
<td>18.4</td>
</tr>
<tr>
<td>Panama, 2009</td>
<td>NA</td>
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<td>6.3</td>
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<tr>
<td>Paraguay, 2008</td>
<td>47.1</td>
<td>24.4</td>
<td>11.0</td>
</tr>
<tr>
<td>Peru, 2010</td>
<td>51.3</td>
<td>68.3</td>
<td>21.7</td>
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<tr>
<td>Uruguay, 2006-07</td>
<td>60.0</td>
<td>57.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Venezuela, 2006-08</td>
<td>NA</td>
<td>27.9</td>
<td>7.5</td>
</tr>
</tbody>
</table>

1 Not available.
2 Estimated.
Source: PAHO/WHO, consolidated from national surveys except for data from Brazil, which is representative of capital cities of all states and the Federal District and Chile, which is representative of government health clinics.

Box 1. 2025 nutrition targets adopted by the World Health Assembly in 2012

- 40% reduction of the global number of children under five who are stunted by 2025
- 50% reduction of anemia in women of reproductive age by 2025
- 30% reduction of low birth weight by 2025
- No increase in childhood overweight by 2025
- Increase exclusive breastfeeding rates in the first six months up to at least 50% by 2025
- Reducing and maintaining childhood wasting to less than 5% by 2025

life course, starting from the early stages of life, before and during pregnancy, promoting and supporting adequate breast feeding and appropriate complementary feeding, healthy eating by families, and at school during childhood...”

These two developments underline the importance of tackling child undernutrition and obesity and also of protecting, promoting and supporting breastfeeding, a practice that can have a substantial impact on these problems.

In addition, PAHO’s Plan of Action on the Prevention of Obesity in Children and Adolescents to be presented at the 53rd session of the Directing Council in September 2014 includes as the first of five of its strategic areas of action the promotion of breastfeeding. Two indicators for measuring this area of action are the number of countries that regularly (at least every three years) publish their results of monitoring of the International Code of Marketing of Breast-milk Substitutes and subsequent relevant WHA resolutions (Code) and the number of countries that have at least 50% of maternity health services certified according to the criteria of the Baby Friendly Hospital Initiative.

Universal benefits of breastfeeding

Breastfeeding provides protection to babies from illness and death whether they are born in a developed country or an impoverished one, to a rich family or a poor one. While it is well known that breastfeeding is one of the most effective measures for preventing morbidity and mortality [1], its benefits go much further. Important long-term effects of breastfeeding are increasingly being discovered for both mothers and children. These include some protection against overweight and obesity and improvements in cognitive development [2]. Furthermore, research from Brazil suggests that breastfeeding is associated with school achievement among adolescents [3].

Maternal health is also benefited by breastfeeding. Women who do not breastfeed have a 4% increased risk of breast cancer and a 27% increased risk for ovarian cancer [4]. They also face higher risks of hypertension, stroke and some cardiovascular diseases.

In addition, the benefits of breastfeeding are not limited to health – its economic impact is much larger than previously estimated (Box 2).

Transforming breastfeeding into a normative behavior in today’s world

Transforming breastfeeding into a normative behavior entails addressing the key barriers to breastfeeding that prevent women from making their own decisions about whether and how long to breastfeed. These include influence of cultural behaviors, limited counseling and support within hospitals and health services, inappropriate marketing practices by manufacturers and distributors of infant formula and other breast-milk substitutes, and lack of maternity protection and programs for breastfeeding in the workplace.

Social barriers

One detrimental social barrier is explicit as well as subtle pressures not to breastfeed in public. Many women are embarrassed to breastfeed in public and concerned about being rejected by people around them when they do. To overcome this obstacle, mothers need to be socially supported so that they feel comfortable breastfeeding anytime the baby wants, wherever they are. Whether she is inside her home or in public, she needs to feel comfortable to breastfeed whenever and wherever her child is hungry or needs to be comforted. By breastfeeding in this way she sends a clear and powerful message to her family, community and society that breastfeeding is natural and helps to re-establish, in some settings, and affirm, in other settings breastfeeding as a normative behaviour for the modern woman.

As noted from a Brazilian woman from Belo Horizonte, the mother of Marina, 3 years old, and Samuel, 3 months, “I think all women should breastfeed. And, as you cannot be at home all the time (…), let alone leave the child crying from hunger on the street, women should breastfeed in public. I will continue breastfeeding my son in public until he weaned. (…) Maybe some people, at least those who live with me, will begin to see breastfeeding more naturally.”

Barriers to breastfeeding in public as well as other social obstacles must be removed so that breastfeeding once again becomes a social norm and recognized, accepted and valued as the ideal way to feed a child.

Support within hospitals and health services

Promotion of infant formula and other breast-milk substitutes undermine woman’s confidence about her ability to breastfeed and validates the idea that formula is the ideal food for babies. Provision of infant formula at birth, in health care centers and recommendation for its use by health professionals, which is all too frequent, is particularly detrimental. In addition, early use of infant formula hinders later breastfeeding and results in the perception of insufficient milk, a common reason given by mothers for supplementation with infant formula and early cessation of breastfeeding.

All health care systems, whether private or state, must have strong policies in place and knowledgable health care professionals that support breastfeeding and able to counsel mothers and to treat breastfeeding problems when they occur. There is abundant evidence to show that mothers who are supported before birth and especially in

**Box 2. The costs of not breastfeeding**

In the USA, the economic impact of suboptimal breastfeeding among children is estimated to be US $13 billion, an estimate that includes an excess of over 900 deaths [5]. However, inasmuch as this estimate did not include the cost of reduced cognitive development, it significantly underestimates its true cost. Among women suboptimal breastfeeding is estimated to cost total of US $17.4 billion as a result of premature death and increased risk of breast and ovarian cancers among other illness [6]. Although similar studies have not yet been done for other countries in the region, the cost of not breastfeeding is also likely to be very high.

At the family level, however, it is known that the cost of purchasing infant formula puts great pressures on a family’s budget. In Nicaragua, it costs nearly 27% of a low-income family’s budget to feed their child a breast-milk substitute.

In addition, PAHO’s Plan of Action on the Prevention of Obesity in Children and Adolescents to be presented at the 53rd session of the Directing Council in September 2014 includes as the first of five of its strategic areas of action the promotion of breastfeeding. Two indicators for measuring this area of action are the number of countries that regularly (at least every three years) publish their results of monitoring of the International Code of Marketing of Breast-milk Substitutes and subsequent relevant WHA resolutions (Code) and the number of countries that have at least 50% of maternity health services certified according to the criteria of the Baby Friendly Hospital Initiative.
the first hours and days of the newborn’s life increases the probability that an infant will be both exclusively breastfed and breastfed for a longer duration. The WHO/UNICEF Baby Friendly Hospital Initiative, which has been extended to community health centers, promotes health care practices consistent with optimal breastfeeding. Although many hospitals in the region were certified when the Initiative was launched in the early 1990s, most would no longer satisfy the accreditation process, and many more were never certified. To revitalize the Initiative, steps must be taken to embed certification into the broader process of overall certification of hospitals as in the case of Mexico. This way the Initiative is sustainable and certification does not depend on the interest of individual hospital directors or Ministry of Health budgets to fund the necessary training and evaluation.

Marketing of breast-milk substitutes

The International Code of Marketing of Breast-milk Substitutes and subsequent relevant WHA resolutions (Code) provide guidelines to prevent the inappropriate marketing of breast milk substitutes, including infant formula, feeding bottles, nipples, follow-up milks, and other products advertised as full or partial substitutes for breast milk. It also specifies that “No facility of a health care system should be used for the purpose of promoting infant formula or other products within the scope of this Code.” Educating health care professionals on the Code and their obligations under it is critical, especially since many are unaware of its existence.

Although many countries in the region have national legislation, few monitor it regularly and still fewer enforce violation when identified. The growing influence and aggressive marketing of manufacturers and distributors of breast-milk substitutes to health professionals and the public makes protection through the adoption and strengthening of national legislation, monitoring and enforcement an urgent action.

Maternity protection

It is incumbent on governments to ensure that mothers have the protection through maternity leave and benefits to breastfeed. This means ensuring their maternity leave policies are in line with the International Labour Organization minimum recommendation of 14 weeks and work toward a recommendation of 18 weeks and even 24 weeks as legislated in Brazil and Chile. Legislation to protect breastfeeding in the workplace is also needed, including provisions for a private comfortable room for expression and refrigerated storage of breast-milk and breaks for women to use these rooms.

Protecting, promoting and supporting breastfeeding in the 21st century

In addition to the many global resolutions, initiatives, policies and guidelines to protect, promote and support breastfeeding, which continue to be relevant, new advocacy and communications strategies are needed. These should be based on the evidence of benefits for the babies that go beyond reducing the risk of infections. They should inform that breastfed babies might be better prepared for the global economy due to the positive consequences on intelligence levels, that mothers might be protected from diseases such as cancer; that the family and society will benefit from savings on health care; and that the environment would be protected from the millions of cans and bottles disposed in landfills.

In familial, community and global settings, women should be empowered to carry out their choice to breastfeed anytime, anyplace.

Acknowledgements:

This brief was written by Drs. Chessa Lutter and Cintia Lombardi, Healthy Life Course, Family, Gender and Healthy Life Course, Pan American Health Organization/World Health Organization. An electronic copy as well as many other documents on child feeding are available at www.paho.org/childfeeding.

References