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YOUNG CHILD MALNUTRITION IN THE AMERICAS: ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS

Introduction

Importance of young child nutrition

1. The fight against malnutrition is essential to achieve nearly all of the Millennium Development Goals (MDGs) and it is occurring in a politically important and strategic moment in history. Many Member States are committed at the highest political levels to the eradication of stunting and anemia in young children. This commitment reflects an understanding of the effects of young child nutrition on physical and mental health throughout life, and on social and economic development in general. It also reflects the knowledge that there are evidence-based cost-effective preventive interventions, which will result in increased physical growth, cognitive development, educational achievement and economic productivity.

2. Despite improvements in young child nutrition and health services that have taken place in many countries, the recent dramatic increases in the price of food and fuel challenge our collective commitment to better child nutrition. While young children consume only small amounts of food, the quality of the food they consume is extremely important for their nutrition and physical and mental health. While breastmilk alone is sufficient for the first 6 months of life, in addition to continued breastfeeding, young children later require nutrient-rich foods that provide the vitamins, minerals, proteins and essential fatty acids necessary for optimal development. Nutrient-rich foods, often animal source foods, are expensive relative to staple foods.

Background

3. Maternal and child undernutrition contributes to more than one-third of child deaths and more than 10% of the total global disease burden. Of the nutrition-related factors for child death, stunting, severe wasting and intrauterine growth restriction constitute the largest risk factor. Therefore, improving young child nutrition is essential to child survival (MDG 4) along with the eradication of extreme poverty and hunger (MDG 1). Because of the intergenerational effects of young child malnutrition on health and physical and mental development, it is also relevant for universal primary education (MDG 2), gender equality and empowerment of women (MDG 3), improvement of maternal health (MDG 5) and combating infectious diseases (HIV/AIDS, tuberculosis and malaria) (MDG 6). Breastfeeding also helps ensure environmental sustainability (MDG 7).

4. The most prevalent micronutrient deficiency in the world is iron and the highest prevalence of anemia is in young children, in instances exceeding 80% in infants. The peak prevalence of anemia (birth to 24 months of life) corresponds to an important and iron-sensitive period of mental and motor development; therefore, young child anemia is a serious public health problem with long-term health and economic implications. Unlike stunting, anemia affects young children of all socioeconomic strata of society. Improved maternal iron status during pregnancy and improved height (determined by her own early childhood nutrition) could prevent 20% of maternal deaths. Improved maternal iron status also speeds recovery from childbirth, leading to better child care, health and nutrition.

5. Iodine deficiency during pregnancy, the single largest preventable cause of mental retardation in children, is easily prevented through the iodization of salt. Adequate folic acid intake prior to and during the first weeks of pregnancy, achieved through prenatal supplementation or the fortification of wheat flour with folic acid, can prevent up to 40% of neural tube defects. In areas of high child mortality, reducing vitamin A deficiency can reduce mortality by 23%. Zinc, provided as an adjunct treatment for diarrhea, can reduce its duration and severity.

Justification

6. This document identifies the actions needed to protect the achievements in young child nutrition, address the unfinished agenda and face new challenges to ensure that each child born in the Americas has the opportunity to reach their health and development potential. This will enable young children—the most vulnerable citizens of our globalized world—to contribute to the social and economic development of their countries, the region and the world.

Relevant International and Regional Mandates and Goals

7. In addition to the MDGs, improved young child nutrition is also crucial for achieving other global commitments such as those from the UN General Assembly Special Session on Children (2002) and the Convention on the Rights of the Child (UN General Assembly, Resolution 44/25).

8. In 2007, the Member States approved PAHO's Strategic Plan (2008-2015) and the Agenda of the Americas, which call for improved infant and child health. In 2006, the Directing Council approved the Regional Strategy and Plan of Action on Nutrition for Health and Development (CD47/18). Reducing young child stunting and anemia and reducing inequities within and among countries is a key component of this Strategy. The PAHO Secretariat is committed to cooperating with Member States for the attainment of international and regional health and development goals for which improved young child nutrition is an important prerequisite. Key to PAHO's technical cooperation is the provision of strategic guidance on cost-effective, evidence-based and high-impact policies and programs to improve child nutrition.

Immediate and long-term effects of young child malnutrition on health and development

9. The direct causes of young child malnutrition are intrauterine growth failure, premature birth and/or low birthweight. In addition to maternal malnutrition, these are caused by preeclampsia, untreated infections and tobacco use, among other causes. Newborns of adolescents are at particular risk. The indirect causes include poverty, limited access to quality health services, low parental education and poor water and sanitation, housing and air quality, psychosocial stress, domestic violence and drug and alcohol abuse.

10. The effects of young child malnutrition span generations. A mother's nutritional status, often determined when she herself is a young girl, affects the health of her children and future grandchildren. Young child malnutrition is also a risk factor for nutrition-related chronic diseases (NCDs) and increases the burden of disease these cause.

11. Early and adequate nutrition is directly related to school achievement and lifetime earnings; therefore, to social and national development. An inverse relationship between iron deficiency anemia and cognitive development exists. Research confirms the lasting effect of iron deficiency during infancy and the double burden of both poverty and iron deficiency. These cognitive deficits persisted into adulthood even when iron deficiency is corrected during infancy. Preventing iron deficiency early in life can thus help children make optimal use of the educational opportunities they are provided.

Analysis

Trends and inequities in early childhood malnutrition

12. In all Member States, children fail to grow in length and weight in a remarkably similar age-specific pattern, despite vastly different prevalences of underweight and stunting. Stunting is the most prevalent growth problem in the Region with a prevalence ranging from 11.8% to 54.5% in children under 5 years of age. Prevalence of stunting far exceeds prevalence of underweight by multiples of 1.6 to 5.4. Approximately half of the countries have a prevalence of wasting less than what would be expected in a normal population. Overweight is an increasing problem, with the prevalence ranging from 4 to 9%. The age-specific pattern of growth retardation clearly shows pregnancy and the first 24 months of life to be a critical window of opportunity to improve young child nutrition.

13. Overall country prevalence estimates mask enormous within-country differences, which is largest for stunting. In most countries, the gap between the settings with the lowest and highest prevalences is on the order of 40%; however, in some differences in the prevalence of stunting range from less than 10% to 70%. Such inequities in malnutrition are not only an outcome of poverty; they also negatively affect the future opportunities of malnourished children. As such, they are both unequal and unjust.

14. The prevalence of underweight and stunting decreased during the past two decades though progress has been slow and the prevalence of stunting remains high. Of concern is the finding that in a few countries the already slow pace of decline has further slowed or reversed course. Stunting affects poor children far more than rich ones and, in Latin American countries, with few exceptions, detailed analysis of trends over the past 20 years show that this inequality continues. The challenge is to improve linear growth without disproportionately increasing weight in relation to length.

15. The official indicator for monitoring achievement of MDG 1 (reducing the prevalence of undernutrition by half between 2000 and 2015) is underweight. However, the best epidemiologic indicator for assessing malnutrition is stunting because it reflects the permanent and accumulated effects of insults to young child nutrition and reflects economic and social determinants. Different measures of undernutrition have different implications for determining whether countries are estimated to be “on track” to meet MDG 1. If stunting is used, only 4 of the 10 countries for which nationally representative trend data are available are estimated to be on track (the Dominican Republic, El Salvador, Mexico, and Nicaragua). Colombia is also estimated to be on track if it once again achieves annual percentage point declines similar to those of earlier years, before its rate of decline slowed. The remaining 5 countries (Bolivia, Guatemala, Haiti, Honduras and Peru) are not estimated to be on track to reach the goal. If underweight is

used as the indicator, 8 of 10 countries (all countries except Haiti and Peru) are estimated to be on track to meet the goal[1].

Proposal

Evidence-based interventions to prevent malnutrition

16. The major challenge is to implement and evaluate multi-sectoral, sustainable, comprehensive and high-impact interventions. Such interventions should also consider and respect relevant intercultural differences. For greatest impact, health-related interventions must be complemented by those in the other sectors. Breastfeeding promotion is the most effective health intervention to prevent child mortality. Reducing stunting requires promoting breastfeeding, counseling and education about complementary feeding and appropriate child care practices. In poor resource settings, the provision of appropriate fortified complementary foods and/or micronutrient supplements with counseling may also be necessary. Counseling on infant feeding in the context of HIV is needed to reduce vertical transmission. Because of the important effect of repeated infections on appetite and metabolism, reducing the frequency and duration of respiratory infections and diarrhea is also necessary. Rotavirus and pneumococcal vaccinations are important in this regard.

17. During pregnancy, evidence-based interventions include iron/folic acid supplementation, prevention/treatment of pre-eclampsia and infections and smoking cessation. Because adolescents are at greater risk for poor infant health and nutrition, reduction of adolescent pregnancies through programs in sexual and reproductive health and improved care during their pregnancies is necessary. Essential delivery care practices for newborn nutrition include delayed umbilical cord clamping (to maximize iron transfer to the newborn), immediate skin-to-skin contact and early initiation of breastfeeding and implementation of human milk banks.

18. Improving the underlying economic and social determinants of malnutrition is also crucial to improving young child nutrition. These include maternal education, economic opportunities to reduce poverty, and improved housing, water and sanitation systems, reduced air pollution and access to quality health services and women's empowerment.

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[1] These estimates are based on the application of the new WHO Child Growth Standard to 38 nationally representative surveys from Argentina, Bolivia, Brazil, Colombia, the Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua and Peru. To ensure comparability and avoid biases that are introduced when clinic-based data are used, only surveys using household samples were included. Trend estimates could not be made for Argentina and Ecuador because only a single data point is available.

Methodology

Strategies for implementing evidence-based interventions

19. The interventions described above must be integrated into a universal primary health care system that includes programs for maternity and neonatal care and care of young children. Improving young child nutrition must be a priority for all health personnel—not limited to the domain of nutritionists—and they must have the knowledge and technical skills to implement necessary interventions. The MDGs 4 and 1 will only be achieved if child feeding and nutrition are no longer on the margins of discussions and neglected by investments in maternal and child health.

20. To reduce the gross inequities in the Region, the health and non health sector interventions described above must be targeted to the communities with the highest prevalences, which are often the most difficult and expensive to reach. Targeting of pregnant women and young children in these communities should be preventive and universal in nature as by the time anemia and stunting are diagnosed the "window of opportunity" for its prevention and life long sequelae may have passed. The greatest challenge will be translating the political commitment to improve young child nutrition into policies and programs that involve politicians at all levels and engage the poorest communities from the very beginning as key stakeholders in developing an integrated set of solutions to their problems. Improvement in child nutrition requires that political rhetoric be transformed into concrete actions that reach all affected communities.

21. Investing in and improving the evaluation of program implementation and impact is essential to monitor progress, make necessary policy and program adjustments and assess impact and interventions costs. Such evaluations provide a rational basis for defending and expanding programs and a collation of support that can withstand political change. In Mexico, investment in program monitoring and evaluation has underpinned continued political support of "Opportunities" resulting in significant and well-documented reductions anemia and stunting. In Ecuador, an evaluation of a national program to improve young child nutrition reported a reduction in anemia and improved growth.

22. Young child nutrition is determined by factors beyond the domain of the health sector, including sectors related to water and sanitation, agriculture, maternal education and family income. To foster access to nutrient-rich foods by the poor, policies affecting agriculture and the commercial market for such foods, will likely complement social programs. Presidents, Ministers of Health and other high level decision makers can play a crucial role in leading and coordinating government sectors, appointing and convening a high-level inter-sectoral committee and providing sufficient budget for its actions.

Recommended Strategies

23. The Regional Strategy and Plan of Action on Nutrition in Health and Development includes five interdependent areas for strategic action: a) development and dissemination of macro policies targeting critical nutrition-related issues; b) strengthening resource capacity in the health and non health sectors; c) implementation of information, knowledge management and evaluation systems; d) development and dissemination of guidelines, tools and effective models; and e) mobilizing partnerships, networks and a Regional Forum in Health, Food and Nutrition. As outlined below, specific actions in these will improve child nutrition. A sixth recommended area for strategic action is the fostering of south-south cooperation.

24. *Development and dissemination of macro policies targeting critical nutrition-related issues.* It is important to consider in relevant international agendas and trade agreements issues that can influenced young child health and nutrition develop. To revitalize policies and programs, it is recommended that countries form an inter-sectoral high-level committee to convene and coordinate different sectors at both national and local levels to implement a national strategy and plan of action to improve young child nutrition. Examples of such inter-sectoral high-level committees include the committee for Zero Malnutrition in Bolivia and Brazil and "CRECER" in Peru. Lastly, a strategy is needed to ensure the universal application of highly effective nutrition interventions in primary health care and to guarantee universal access to vulnerable groups and populations.

25. *Strengthening resource capacity in the health and non health sectors.* Investing in capacity in public health nutrition is needed to ensure that countries have updated knowledge in technical advances, effective policies and programs and monitoring and evaluation strategies in child nutrition. There are examples in the Region developed in Chile, Costa Rica, Mexico, and other countries that serve as regional resources for academic degrees, scholarships and training in maternal and child nutrition and health.

26. *Investing in information, knowledge management and evaluation systems.* Public health decisions should be data-driven and guided by operation's research that provides answers on *whether programs work*; *why they work* and *how much they cost*. Funds for monitoring and evaluation should be included in every program budget and sufficient to ensure useful results for decision making. Many countries make large investments in feeding programs that have never been evaluated and, therefore, lack information on whether these investments are achieving their stated goals. Evaluations are needed to provide a rational basis for defending and expanding—and when necessary—changing programs to improve young child nutrition. They also serve to hold all stakeholders, including program beneficiaries, accountable.

27. *Development and dissemination of guidelines, tools and effective models.* Guidelines, tools and models for how to improve young child nutrition must be continuously updated with respect to scientific changes in our understanding of the causes and consequences of young child nutrition and empirical knowledge from program evaluations. Most importantly, this information must be integrated into medical, nursing and health policy curricula. To reach political and non technical audiences, advocacy materials based on sound science is needed and a communication strategy to reach these audiences developed.

28. *Mobilizing partnerships, networks and a Regional Forum in Food and Nutrition.* There is a need to harness and coordinate the actions of all stakeholders, including a strategic alliance among the UN Agencies to optimize technical cooperation on young child health and nutrition and a coordinating mechanism among many stakeholders, including bilateral agencies, non governmental organizations (NGOs), faith-based organization, foundations and public-private partnerships. The private sector has an important role to play in the marketing of high-quality, low-cost fortified complementary foods and/or micronutrient sachets to improve access to such foods by the poor and in adhering in letter and spirit to the International Code of Marketing of Breast-milk Substitutes. The UN Sub-Committee on Nutrition (SCN) coordinates the global efforts of UN Agencies, bilateral organizations and NGOs. A Regional SCN in Latin America, coordinated by PAHO/WHO Peru country office, was a key recommendation of the Latin American Working Group in the 2008 SCN Meeting.

29. *Fostering of South-South Cooperation.* Several countries in Latin America have been successful in virtually eliminating young child malnutrition. Others have made great strides. These countries can provide cooperation, sharing lessons learned, strategic directions and evaluation strategies. Examples of best practices to share and duplicate would include Brazil’s founding of the Latin American Network of Human Milk Banks; Mexico’s sharing of expertise in implementing and evaluating a successful inter-sectoral poverty alleviation program (Opportunities) with a strong nutrition component; Chile’s example of iron and folic acid fortification of wheat flour; and Costa Rica’s experience in integrating actions to improve young child nutrition in primary health care.

Action by the Executive Committee

30. The Executive Committee is requested to review the progress achieved by the Member States in reducing young child malnutrition and provide comments to the Secretariat with respect to the recommended six areas for action to accelerate progress for achieving the MDGs 4 and 1.

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