



# EMPOWERING WOMEN TO ACHIEVE FOOD SECURITY

## HEALTH AND NUTRITION

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The health and nutritional status of women is important for both the quality of their lives and the survival and healthy development of their children. Adequate nutrition is a human right for all, and the two-way link between nutritional well-being and women's social and economic capabilities needs to be better reflected in policy and programming.

Nutrition policy and most nutrition interventions in developing countries are mainly aimed at reducing young children's malnutrition. To this end, a woman, as a pregnant and lactating mother, may be the target but not the intended beneficiary. While both the child and the mother may benefit, such a narrow approach is likely to limit the overall effectiveness of nutrition interventions and the sustainability of their impacts. This brief therefore argues for greater focus on female health and nutrition through the life cycle, as opposed to the traditional concerns with maternal nutrition during pregnancy and lactation.

### WHY A LIFE-CYCLE APPROACH?

Adopting a life-cycle approach to both the analysis of nutrition problems and the choice of interventions emphasizes that nutritional status, unlike disease, is cumulative over time and not an isolated incident. It also highlights the centrality of nutrition in maintaining women's health.

Poor nutrition often starts in utero and extends, particularly for girls and women, throughout the life cycle. It also spans generations. Malnutrition that occurs during childhood, adolescence, and pregnancy has an additive negative impact on the birthweight of future babies.

In 2000, an estimated 25 million babies in developing countries were born malnourished. This is a major global human-development problem with profound consequences at many levels in society. A low birthweight baby who suffered intrauterine growth retardation as a fetus is not only born malnourished but also continues with a far higher risk of dying in infancy. If she survives, she is unlikely to significantly catch up this lost growth later and will be more likely to experience developmental deficits. Furthermore, nutritional deprivation in utero may "program" a newborn for a life of scarcity, predisposing the individual to later cardiovascular and endocrine diseases when the child's system is later confronted by a world of plenty. It has also been hypothesized that the "nutrition transition" (that is, the shifts in dietary patterns and lifestyle that have resulted from urbanization and rapid economic development) accelerates the emergence of such outcomes.

Malnutrition has major consequences for women, affecting their health, productivity, and overall quality of life. It may also affect their chances of survival. Of the four main causes of

maternal death in childbirth, three (hemorrhage, infection, and obstructed labor) are related directly or indirectly to nutrition.

Pre-pregnancy weight, pregnancy weight gain, and iron status are critical indicators of pregnancy outcomes for both the mother and the newborn. Anemia is pervasive among women in the developing world, and its effects are devastating. They include debilitating fatigue that limits capacity for economic productivity and childcare, compromised immune function, widespread maternal death in childbirth, and damage to the fetal brain.

Adolescent girls are particularly vulnerable to the effects of malnutrition. Underweight adolescent girls may not finish growing before their first pregnancy. Still-growing adolescents are likely to give birth to a smaller baby than mature women of the same nutritional status, due to poorer placental function and competition for nutrients between the growing adolescent and the growing fetus.

Adolescent pregnancies also confer a higher risk of maternal and infant mortality and pre-term delivery. Maternal mortality ratios for 15-19 year olds have been found in Bangladesh to be twice as high as those for 20-24 year olds. These grave risks are further heightened by the fact that pregnant adolescent girls are less likely to use antenatal and obstetric services.

### MAGNITUDE AND CAUSES OF WOMEN'S UNDERNUTRITION

Insufficient attention has been given to the extent, causes, and consequences of women's undernutrition. Even among pregnant women, it remains largely uncounted and unreported. Few nationally representative studies have been done.

In the mid-1990s, the World Bank estimated that 450 million adult women in developing countries were stunted due to undernutrition during childhood. It has been conservatively estimated that about 250 million women are at risk of iodine deficiency disorders, and almost two million were blind due to vitamin A deficiency. Around half of all adult women in developing countries (745 million) are anemic. Deficiencies of iodine and iron are known to affect females throughout infancy and childhood disproportionately, as well as before and during pregnancy.

A major current issue for women's health and survival, and for development in general, is HIV/AIDS, which affects men and women but is not gender-neutral: women are more at risk of HIV infection than men. Biologically, the risk of becoming infected with HIV during unprotected vaginal intercourse is between two and four times higher for women than for men. Socioculturally, women are more susceptible to HIV/AIDS and other sexually transmitted diseases (STDs) because the norm of



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virginity restricts adolescent girls' access to information about sex, and increases risk of sexual coercion. Male power is often manifested in sexual violence. Women's economic vulnerability increases pressures for them to exchange sex for food or money. Women are also less likely to seek treatment because of the predominant culture of silence regarding sex stigmatizes women who try to access STD treatment services. HIV/AIDS also exacerbates social, economic, and cultural inequalities that define women's status in society (for example, inheritance practices). And it is a life-cycle phenomenon as mother-to-child transmission of HIV dramatically demonstrates.

Throughout the life cycle, female nutrition is affected by complex interactions among the following types of factors:

- Social, economic, and cultural factors that include social status, female discrimination, and fertility patterns that influence both exposure to and consequences of disease;
- Individual behavior and psychological factors, including dietary practices, reproductive patterns, health-seeking behavior, and use of health and nutrition services;
- Biological factors (age of menarche, menstruation, pregnancy, and increased risk of infections); and
- Access to, quality of, and quantity (coverage) of health and nutrition services.

To summarize, there are several important reasons why women's health and nutrition should be considered part of an intergenerational continuum:

First, the consequences of women's undernutrition for child survival and development are at least as important as the direct biological effect of undernutrition on the fetus during pregnancy and infant during lactation. Second, even if the goal was only to increase birthweight, a focus only on pregnant women would be inadequate for two reasons: (1) it would fail to take into account pre-pregnancy weight, which is one of the most important determinants of birthweight, and (2) reaching and targeting women during pregnancy is difficult. Third, the traditional lack of emphasis on women's nutrition has probably limited the impact of high profile initiatives such as "child survival" and "safe motherhood." Fourth, emerging evidence on the fetal origins of disease further strengthens the case for smoothing imbalances throughout the life cycle and taking a long-term perspective. Fifth, women will be more likely to be motivated to participate in program activities with clear benefits for themselves as well as for their children.

#### WHAT SHOULD BE DONE?

Both the magnitude of female undernutrition and its enormous social, economic, health, and development consequences demand stronger action. Interventions exist to break this intergenerational cycle, or to make it positively reinforcing, by attending both to female malnutrition from adolescence through pregnancy and lactation and to the promotion of growth of the newborn, preschool, school-age, and adolescent child.

Programs need to be inclusive but focused, aimed both at raising the floor of female nutritional status throughout their lives, thus smoothing life-cycle nutritional imbalances, and at maximizing impacts.

Direct nutrition action needs to focus on both macro- and micronutrients, on energy intake and energy expenditure, on disease prevention, and, above all, on strengthening the capacity for and practice of caring for women and adolescent girls. Efforts are needed to space births, avoiding now widespread maternal nutritional depletion. Mothers need a recuperative interval of at least six months following cessation of breastfeeding. Accessible, good-quality pre- and postnatal services run by supportive workers are essential for enabling early registration of pregnant women, providing counseling about nutrition and reproductive health, and providing access to contraception. Adolescent pregnancies need priority attention.

One particular issue deserves highlighting here. The existence of widespread female anemia is scandalous. In a world in which iron supplements have long been known to prevent and control anemia, this condition still directly or indirectly causes at least 120,000 women to die each year in childbirth. The constraints to large-scale programmatic effectiveness are known; the technologies and systems for treatment exist. But the commitment has just not been there to give the issue priority status and make the programs work.

Another priority for advocacy is to mainstream the use of birthweight as a fundamental indicator of human development. Birthweight is a critical indicator of the life cycle of malnutrition, a marker not only of maternal nutritional status but also a leading indicator of the nutritional and health status of the child, and even her/his chronic disease risk in adulthood. Advocates must get this message across so that better birthweight data are collected and used. Finally, there is a need for vigorous advocacy and communication aimed at delaying first pregnancies until adolescent girls have become young women in their twenties.

Such direct actions complement the struggle for achieving long-term goals of gender equity and women's empowerment. Where social and cultural factors prevent women and girls from realizing their full potential, vigorous and sustained advocacy for a life-cycle approach to health and nutrition is crucial.

In sum, investing in female nutrition through long-term, comprehensive, life-cycle based programs holds major potential for breaking the intergenerational cycle of malnutrition, with multiple benefits for women, children, their households, and, cumulatively, for nations. ■

For further reading see J.O. Mora and P.S. Nestel, "Improving prenatal nutrition in developing countries: strategies, prospects and challenges," *American Journal of Clinical Nutrition* 71 (5): 1353S-1363S (2000); S.P. Walker, "Nutritional issues for women in developing countries." *Proceedings of the Nutrition Society* 56, 345-356 (1997); S. R. Gillespie, *Improving Adolescent and Maternal Nutrition: An Overview of Benefits and Options*, UNICEF Staff Working Paper Number 97-002 (New York: UNICEF, 1997).

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