

Positive Deviance/Hearth **in the Context of Other Nutrition and Child Survival Interventions**

During the past two decades, there have been significant decreases in child mortality to varying degrees across the world. However, malnutrition has remained a nagging problem with high percentages of undernourished children in Sub-Saharan Africa and increasing absolute numbers of children with under-nutrition in South Asia. In Latin America nearly half of children from ethnic minorities are still suffering from chronic under-nutrition.

Several donors, including USAID, have funded the development or refinement of various interventions to improve child nutritional status during the past decade at both the facility and community level. These include the Essential Nutrition Actions (ENA), Baby-Friendly Hospitals and mother-to-mother support groups for breastfeeding, IMCI for care of the sick child and Community-IMCI with a focus on key family practices, the *Atención Integral a la Niñez-Comunitario* (AIN-C) for growth monitoring and child wellness in Latin America, micronutrient supplementation and fortification programs, and PD/Hearth. The CORE Group sees these various interventions or approaches as being complementary and that there is great potential to improve global nutritional status if the approaches are implemented in an integrated manner, and facility-based services are linked with a sound community component.

Essential Nutrition Actions¹

The Essential Nutrition Actions framework includes the technical interventions which have shown the most efficacy in improving nutritional status. The six interventions include exclusive breastfeeding for six months, adequate complementary feeding from six to 24 months, feeding of the sick child, control of Vitamin A deficiency, iron supplementation for pregnant women, and control of iodine deficiency. Maternal nutrition is sometimes added as a seventh intervention. ENA stresses using contacts with health workers at six critical stages in the life cycle to implement the nutrition interventions. The six points include pregnancy, delivery, post-partum, immunizations, well-baby contacts, and sick child visits. Besides integrating better quality nutrition interventions into health and social service delivery, ENA has two other delivery strategies which include a) using multiple channels to deliver clear, focused messages and, b) capacity building and mobilization at the community level. The actions proposed for the latter include engaging community leaders, using local data to prompt mobilization, recruiting and training change agents in communities, and conducting social mapping and outreach to draw in the marginal groups who often don't frequent health services. ENA does not prescribe any one approach to community level action.

Community Approaches

In many areas of the world, families can not easily access routine health services, thus, health outcome is dependent on community-based services and norms. Successful community programs employ multiple behavioral change strategies that provide easy and affordable behavioral options for families to adopt while also addressing other community priorities such as water and sanitation and food security. Behavior change theories acknowledge that individuals need differing and multiple approaches depending on their personal traits, self efficacy, social support, current awareness, and learning styles. A minority of people adopt new practices readily, proactively seeking information and services. All others need varying degrees of

reinforcement and social support, differing learning experiences, opportunities to practice new behaviors and skills, and both internal and external motivation. Mutually reinforcing messages and learning opportunities from various channels such as health personnel, peers, community leaders, and media are often needed.

There are a number of different approaches to improving community nutrition. In order to achieve community-based child health impact, CORE promotes a framework for Community IMCI (C-IMCI) composed of three interlinking elements: partnerships between health facilities and the communities they serve; appropriate and accessible care and information from community-based providers; and integrated promotion of key family practices critical for child health and nutrition. All of this is supported by a multi-sectoral platform.

The Secretariat of Health in Honduras implements AIN-C as its approach to improving child health in the community. According to the Secretariat of Health, AIN-C promotes three goals: 1) promoting growth of children by assessing adequate gains in weight on a monthly basis and providing counseling on nutrition, child feeding, and child health; 2) solving problems of illness, poor feeding practices, or general child care at the household level in the critical first two years of life; and 3) referring children to health facilities for treatment of serious illness and for well-child services including immunizations and micro-nutrients.

Positive Deviance (PD)/Hearth has three goals: 1) to rehabilitate malnourished children; 2) to enable families to sustain improved nutritional status with existing resources; and 3) to bring about permanent changes in community norms and behaviors which will result in eliminating moderate and severe malnutrition from the community. Positive Deviance/Hearth is a community approach that can complement the larger child health frameworks of ENA, C-IMCI or AIN-C under certain circumstances. The PD process identifies affordable, acceptable, effective and sustainable behaviors that are already practiced by at-risk people and that do not conflict with local culture. PD/Hearth can be an entry point to mobilize communities to address malnutrition or an intervention for rehabilitating large numbers of malnourished children identified through routine GMP programs such as AIN-C. PD/Hearth is successful when linked to health services and other community-level health and nutrition interventions such as breastfeeding promotion, immunization, growth monitoring, deworming, micronutrient supplementation, care of the sick child, hygienic and well child practices.

Positive deviance has fulfilled a need to reach poor families with locally sustainable ways of preventing malnutrition and rehabilitating malnourished children. The Positive Deviance approach as applied to nutrition, dates back to the late 1980s and the research funded by UNICEF². Through learning what their neighbors with equally limited resources are doing to prevent malnutrition, families are empowered to adopt better practices even with very limited access to health services. This empowerment has often led to community advocacy for better access to a range of health services.³

The Hearth part of PD/Hearth is an intensive behavior change intervention targeting families of children with moderate to severe malnutrition to introduce the locally-discovered *positive deviant* practices as well as promoting other behaviors essential to child health. Hearth sessions incorporate the “best practice” approaches for behavior change including mother-to-mother

support, counseling, negotiation, adult learning (safe environment, dialogue), skills building, motivation through visible results, and community mobilization. Before entering the Hearth, families are required to take children to the health facility for de-worming, micronutrient supplementation, and needed immunizations. PD/Hearth volunteers reinforce continued use of health services through referrals and counseling. If a growth monitoring program did not exist previously in the community, the PD/Hearth program must work with the health facility to establish one.

PD/Hearth targets the families with malnourished children, knowing that these families may be those least likely to participate in regular community nutrition education or to access health services. It is, in essence, a “mop-up” program to eliminate the pool of ever-malnourished children not usually affected by more generalized programs, not only through rehabilitation but also by permanent behavior changes in their families which prevent malnutrition in future siblings. This outcome has been documented in Vietnam where researchers returned to communities five years after the PD/Hearth program ended and found that PD/H children tended to be better nourished than their counterparts, and their younger siblings were significantly better nourished than those in the comparison group (based on weight for age and weight for height z scores). Mothers that went through the program reported feeding their younger siblings more often (main meals and number of snacks) than their counterparts, and washed their hands more often than comparison mothers. Growth-promoting behaviors identified through PD studies and practiced through neighborhood based rehabilitation sessions persisted years after program completion. Their sustained behaviors contributed to better growth of younger siblings never exposed to the program.

PD/Hearth was evaluated extensively in Vietnam with funding from Save the Children, LINKAGES, BASICS and other agencies⁴. Monique Sternin, Jerry Sternin and David Marsh reported that the prevalence of severe malnutrition decreased from 23% to 6% ($p < 0.001$); the prevalence of normal weight-for-age increased from 42% to 56% ($p < 0.001$). Children between 18 and 23 months at baseline ($n=244$) improved their weight-for-age (mean Z score: -2.475 at baseline vs. -1.844 after year one, $p < 0.001$) and maintained the improvement after graduating from the program. Perhaps most importantly, in his assessment of scaling up for BASICS II⁵, David Pyle found that the PD/Hearth training and experience enabled national NGO and government health staff to use active learning techniques, collaborate more with subordinates and the communities, and to carefully plan and monitor other projects.

All material inputs for PD/Hearth can come from communities and enrolled families, but there are costs in staff time for training and supervision of volunteers and for community mobilization as well as leading the positive deviance inquiries. To assure quality implementation, staff must be dedicated to this program for some time. However, while the costs may seem high and the effort labor intensive in the short-run, the program is self-limiting and, if implemented properly, should be phased out within a year since there will no longer be malnourished children in the community. Therefore, staff time and resources can then be shifted to complementary nutrition and health interventions.

PD/Hearth requires careful implementation including selection of sites where families live in relatively close proximity, where there are a significant number of moderately and severely

malnourished children (30% or 100 children), and where community leaders can be mobilized to take an active role. PD/Hearth is not appropriate for emergency settings, but can be implemented in the post-crisis relief-to-development phase.⁶

Recent documents by BASICS II as well as several other publications⁷ demonstrate that PD/Hearth can effect significant positive behavior changes at the community level in communities with high levels of poverty and malnutrition.

How PD/H Complements Ministry of Health Essential Nutrition Services

MOH Essential Nutrition Services	Positive Deviance / Hearth
MOH Facility-Managed Services	Community-managed activity with PVO and MOH support
Ongoing services	Time-limited intervention (self-limiting)
Targets all children under five	Focuses on malnourished children under 2 or 3 years
Provides basic package of health services	Provides referral to MOH for services
Uses growth monitoring / promotion	Uses growth monitoring / promotion
Client-centered approach	Neighborhood-centered approach
Provides key messages	Incorporates local wisdom with key health and nutrition messages
Client seeks services	Intensive identification and recruitment of clients with malnourished children
Provides individual counseling / support	Provides individual and group counseling plus peer support
May provide food supplements for malnourished children	Relies on locally available foods affordable to families of malnourished children
½ hour visit with short time spent on counseling	2 week participatory adult education intervention with intensive time spent on practice of new behaviors (2-3 hours/day)
Follow-up usually only when child returns for other services.	Frequent support visits in household for 2 weeks following Hearth intervention
Service orientation	Behavior change orientation
Provides services for 6 priority interventions	Enables caregivers to practice complementary feeding, breastfeeding, care for malnourished; supports referral for other services
Focuses on 6 critical lifecycle stages	Focuses on young children aged 6 mos. to 3 years
Impact on child	Impact on child and on future siblings
Focus on individual change	Focus on individual change and on changing community norms

References:

¹ Karabi Acharya, Tina Sanghvi, Serigne Diene Vandana Stapleton, Eleonore Seumo, Sridhar Srikantiah, Francis, Aminu, Coudy Ly, and Victor Dossou. BASICS II. 2004. *Using 'Essential Nutrition Actions' to Accelerate Coverage with Nutrition Interventions in High Mortality Settings*. Published by the Basic Support for Institutionalizing Child Survival Project (BASICS II) for the United States Agency for International Development. Arlington, Virginia, 2004.

² Zeitlin MF, Ghassemi H, Mansour M, Levine RA Dillanneva M, Carballo M and Sockalingam S. 1990. *Positive Deviance in Child Nutrition: With Emphasis on Psychosocial and Behavioral Aspects and Implications for Development*. Tokyo: United Nations University.

³ Marsh, DR, Schroeder, DG, Dearden, KA, Sternin J, and Sternin M, *The Power of Positive Deviance*. BMJ 2004; 329; 1177-1179.

⁴ Wollinka O, Keeley E, Burkhalter B, Bashir N, eds. 1997. *Hearth Nutrition Model: Applications in Haiti, Vietnam, and Bangladesh*. Published for the U.S. Agency for International Development and World Relief Corporation by the Basic Support for Institutionalizing Child Survival (BASICS) Project, Arlington, VA.

⁵ Pyle, D. and T. Tribbetts. *Assessment of Active, Experiential Training on Program Expansion: Living University in Positive Deviance/Hearth Program in Vietnam, 2002*. Published by the Basic Support for Institutionalizing Child Survival Project (BASICS II) for the United States Agency for International Development, Arlington, Virginia, March 2003.

⁶ Nutrition Working Group, Child Survival Collaborations and Resources Group (CORE), *Positive Deviance / Hearth: A Resource Guide for Sustainably Rehabilitating Malnourished Children*, Washington, D.C.: December 2002.

⁷ Marsh, DR, Schroeder DG eds, *The Positive Deviance Approach to Improve Health Outcomes: Experience and Evidence from the Field*, Supplement to Food and Nutrition Bulletin, Vol. 23, No. 4, December 2002.