Learning together to raise well-nourished children

Watch how mothers in Zambia with healthy children teach others how to feed and care for their children with locally available foods.

The Problem
World Vision’s Response
Zambia Case Study
Granice’s Story
PD/Hearth Results
Lessons Learned
Looking Ahead
World Vision has committed to increasing the number of children under age five who are well nourished and has adopted the Positive Deviance/Hearth (PD/Hearth) Program as one core project model for nutrition. This internationally recognized program is an intensive, behavior-change approach based on the premise that in every community, despite the challenges of poverty, some families – the “positive deviants” – are able to raise well-nourished children. Together, the community discovers what these families do differently to keep their children healthy. The information is used to develop practical teaching sessions, called “Hearth.” Malnourished children and their mothers are invited to participate in Hearth sessions for 12 days. A trained mother conducts the sessions using locally available food and hands-on learning to encourage adoption of new feeding and childcare practices. Local facilitators meet regularly with these mothers’ groups to further build capacity, so communities are empowered to sustain the improvements and prevent future malnutrition among all young children.

The PD/Hearth approach is normally combined with programs to increase family food production, education, income generation, gender equity, nutrition, and family planning to achieve greater sustainable impact on children’s health.

“I was used to going to the hospital all the time for my sick children. I didn’t know that it was malnutrition. Unfortunately three of my five children died. I kept trying different things but there was no improvement. But ever since I joined the Hearth sessions, I no longer go to the hospital. I also got another benefit which is family planning. In the past, by the time my child was one, I would be pregnant. The two children I have left were both malnourished. We went through Hearth and they are now okay.”

– Sophia, mother in Burundi

The lack of a proper diet is the underlying cause of death for more than 3 million children annually.

In the developing world, about 5,500 children under the age of five die every day as a result of undernutrition — almost four deaths every minute. Those who do not die are much more prone to preventable illnesses such as pneumonia, diarrhea and chronic disease as adults. Undernutrition also affects their lifelong ability to learn, work and support families.

Decreasing child deaths by two-thirds and halving the proportion of people who suffer from hunger by 2015 are two of the Millennium Development Goals (MDGs) to which world leaders have pledged.

Get more information about the Lancet report.

Hear Carolyn MacDonald, PhD, World Vision’s Nutrition Director and Nutrition Centre of Expertise Lead, talk about the impact of child malnutrition and World Vision’s response.

World Vision’s response

Despite the challenges of poverty, some families – the “positive deviants” – are able to raise well-nourished children.

Together, the community discovers what these families do differently to keep their children healthy.
Case Study

Zambia has a large variety of food available, yet a World Vision nutrition assessment in one operational area showed 65% of children under age five with some level of malnutrition. Both the communities and World Vision staff initially believed that addressing malnutrition required families to buy special food that they could not afford.

World Vision Zambia implemented a PD/Hearth Project and, through a discovery process involving community members, found that most people believed ‘round’ foods such as eggs, pumpkin, mangos and avocado would cause infertility and therefore were not given to young children. Instead, children were fed mostly starchy porridges of maize and cassava with little nutritional content. However, they discovered some poor mothers were also feeding their children much more nutritious ‘round’ foods as well as green leafy vegetables, soya beans, peanuts, small fish and caterpillars.

Malnourished children and their caregivers attended Hearth sessions that taught nutritious recipes based on these locally available foods as well as new caring practices. When people saw the children eating the Hearth meals, gaining weight and having improved appetite, they became convinced that they could help their children.

World Vision Zambia implemented a PD/Hearth Project and, through a discovery process involving community members, found that most people believed ‘round’ foods such as eggs, pumpkin, mangos and avocado would cause infertility and therefore were not given to young children. Instead, children were fed mostly starchy porridges of maize and cassava with little nutritional content. However, they discovered some poor mothers were also feeding their children much more nutritious ‘round’ foods as well as green leafy vegetables, soya beans, peanuts, small fish and caterpillars.

When people saw the children eating the Hearth meals, gaining weight and having improved appetite, they became convinced that they could help their children.

Malnourished children and their caregivers attended Hearth sessions that taught nutritious recipes based on these locally available foods as well as new caring practices. When people saw the children eating the Hearth meals, gaining weight and having improved appetite, they became convinced that they could help their children. World Vision staff and the Ministry of Health followed up to ensure the mothers were continuing to practise the new skills and that their children were gaining weight and growing. A decrease in food taboos, more involvement of fathers in childcare and a reduction in the stigma related to malnutrition were positive behaviour changes that contributed to improved child health.

In five countries where World Vision Canada implemented PD/Hearth, malnutrition in children under age five decreased by 22% over two months.

Granice’s Story

Granice’s 21-month-old daughter was severely malnourished. She weighed 8 kg, typical for an 8-month-old. The hospital where she was twice referred had no food or medicine to treat her. Granice was invited to join World Vision’s PD/Hearth project in her community but she was skeptical because the project was only using locally available food to treat the malnourished children. She was sure her daughter needed some kind of special food or medicine from outside the community to get well.

After a few days, she was amazed to see her daughter rapidly gain weight, simply by eating a nutritious menu of locally available and affordable foods. She fed her daughter round foods such as pumpkin, egg and avocado, contrary to a widely held cultural belief. She also learned to plan for the lunch time meal for her child when she worked in the fields all day.

“To my surprise, after a few days of feeding my child, she started developing an appetite to eat. This led to gaining weight and major improvements in her health,” said Granice. “I have learned how to feed my child using the available food at my home.” With ongoing follow-up and reinforcement from PD/Hearth volunteers in her community, Granice will continue to use her new skills to feed and care for her little girl and any future children.

Simple yet not-widely-practised behaviours were within the reach of all community members, but needed to be discovered and applied to improve children’s health.
Results/Impact

World Vision has implemented PD/Hearth in 40 countries throughout Africa, Asia and Latin America. The Nutrition Centre of Expertise (NCdE), which World Vision Canada hosts, along with Regional Nutrition Coordinators, is leading PD/Hearth implementation in communities through support for planning, capacity building and technical advice.

Through numerous independent reviews, PD/Hearth has been shown to decrease levels of malnutrition in children under age five with up to 85% gaining sufficient weight to graduate after 12 days. Results from five countries where World Vision Canada implemented PD/Hearth showed approximately a 22% decrease in levels of malnutrition in children under age five over a two-month period.

An evaluation of World Vision Canada projects in Bangladesh showed an almost 50% decrease in moderate malnutrition in just three months. In addition to these shorter-term results, data from Premamaya ADP in India showed that 69.5% of Hearth children had maintained normal weight six months after graduating. Caregivers expressed an improved ability to care for their children and better knowledge about providing more balanced diets. Visible, immediate improvements demonstrated by children encouraged and motivated caregivers to continue the practices they learned and children continued to gain weight in their own homes.

Skills and knowledge learned in Hearth sessions have spread spontaneously among other families in communities. As enthusiastic caregivers and community members begin to see changes and share their new-found knowledge with others, neighbouring communities have requested to learn how to help their children grow better. Communities begin to help other communities.

Through partnering with Ministries of Health, World Vision has been instrumental in the adoption of PD/Hearth as part of national health policy in Honduras, Peru, Uganda, Burundi and potentially in Rwanda. This will result in broader reach and more sustainable impact as national governments take responsibility for the program.

A number of factors have contributed to quality implementation and increased sustainability of PD/Hearth programs.

- Partnerships with local community groups, district, provincial and national level Ministry of Health or Education ensured key players became advocates and promoters and were instrumental in replication of the program from one project area to another.
- Community mobilization and ownership built broad awareness of the program and its effectiveness in improving children’s nutrition and growth. Community involvement included providing leadership, training and support to the volunteers, identifying households to host the Hearth sessions and contributing some food and equipment.
- PD/Hearth is an effective yet labour-intensive program. A large network of trained men and women volunteers within the community is the backbone of the implementation and contributes to sustainability.

A local trainer can support 10 volunteer teams of two who implement Hearth. Each team can rehabilitate up to 10 children during a Hearth session, allowing the trainer to oversee the rehabilitation of hundreds of children a year.

- The involvement of men has helped secure the support of fathers to commit family resources for the growth and health of their children.
- Integration with other projects to address issues around growing nutritious food, accessing latrines and clean water and gender equality improves program outcomes.

Despite positive results, there have been challenges in implementing PD/Hearth. World Vision has learned that when sufficient time is given to build a thorough understanding of the program’s concepts and principles, community leaders, government ministries and World Vision staff are more supportive and program decisions enhance learning opportunities and sustainability. For example, dependency on handouts is reduced when mothers learn which foods they could easily and affordably use.

Program success requires strong technical support by World Vision staff for training of local volunteers on nutritionally adequate menus and health practices. Ongoing monitoring at the outset is also important. Quality support will result in sustainable improvement in the nutritional status and growth of children. Once the community norm has changed, this technical support is no longer necessary; regular Ministry of Health monitoring is then sufficient.

World Vision Canada has developed an innovative mobile phone application to support PD/Hearth programming. The application will enable community health volunteers to accurately measure children’s weight as well as support detailed follow-up home visits through automated checklists. Because all of the data will be stored on a cloud-based database, real time and longitudinal data on PD/Hearth participants will be available for stakeholders from the community up to the national level. This will enable the community and government health service to monitor the program’s effectiveness and ensure malnourished children receive appropriate follow-up. The solution has also been designed to seamlessly integrate with World Vision’s growth monitoring application to support sustainability and continuity of care for the child.

In collaboration with a consortium of private sector partners, NGOs and funders such as Dimagi and the Grameen Foundation, the application is being piloted in Sri Lanka and Indonesia and is available for deployment elsewhere. World Vision is encouraging other NGOs to adopt the application and additional funding is required for implementation in other countries.

PD/Hearth empowers communities to discover and adopt locally appropriate solutions to malnutrition. These new behaviours are resulting in healthier children and improved quality of life for families, communities and entire nations.