PROJECT MODEL

Positive Deviance/ Hearth

Positive Deviance/Hearth is a behaviour change program used to rehabilitate mildly, moderately and severely underweight and/or moderately acutely malnourished children between 6-36 months of age; sustain their rehabilitation and prevent future malnutrition. Despite limited resources, some parents find ways to raise well-nourished children. Identifying and understanding what these 'positive deviant families' are doing differently in their feeding, hygiene, caring, and/or health- seeking practices from the parents of malnourished children in the same community is the foundation for this project. These key positive practices are shared with malnourished households through a 10-12 Day practical education session called 'Hearth' led by a volunteer. Underweight children are fed a nutrient-dense meal during the session provided and cooked by the primary caregivers using local ingredients. The Hearth sessions are followed by 2-3 days/week of home follow-up visits for 2 weeks to help overcome barriers caregivers may face practicing the new positive behaviours at home.

Contents

List of Abbreviations

ADAPT	Analyse, Design and Planning Tool
ADP	area development programme
CWB	child well-being
CVA	Citizen Voice and Action
CBO	community-based organisation
CMAM	Community Management of Acute Malnutrition
CoH	Channels of Hope
DF	Development Facilitator
DPA	Development Programme Approach
ECD	early childhood development
FBO	faith-based organisation
GMP	growth monitoring and promotion
IYCF	infant and young child feeding
MT	Master Trainer
MoH	Ministry of Health
NGO	non-governmental organisation
PD	positive deviance
PDH	Positive Deviance/Hearth
PDI	Positive Deviance Inquiry
SFP	supplementary feeding programme
SDG	Sustainable Development Goals
ToF	training of facilitators
WASH	water, sanitation and hygiene
WAZ	weight for age
WHZ	weight for height
WV	World Vision

1. Model Snapshot

1.1. Introduction

Positive Deviance/Hearth (*PDH*) is an internationally proven community-based project model for rehabilitating malnourished children in their own homes. It targets mildly, moderately and severely underweight children and moderately acutely malnourished children aged between six and 36 months.[1]

'Positive deviance' means 'different in a positive way from what is usual practice'. 'Hearth' refers to the place within a house where food is cooked and served. Despite limited resources, some parents find ways to raise well-nourished children. Identifying and understanding what these 'positive deviant families' are doing differently in their feeding, hygiene, caring and/or health-seeking practices from the parents of malnourished children in the same community is the foundation for this project. Trained volunteers share this knowledge and teach these positive practices to caregivers with malnourished children in practical lessons called 'Hearth sessions'. In addition, two menus are designed for the Hearth session. Each menu is composed of locally available, accessible, and affordable foods that are nutrient dense. All the ingredients are brought to the Hearth session by the participant caregivers who practise cooking the foods at the Hearth session. Hearth lasts for 10-12 days, followed by a 2-week follow-up conducted by the volunteers through home visits. The purpose of these home visits is to encourage caregivers to continue the positive practices at home but also to help overcome barriers caregivers may face trying to practise them.

1.2. Contribution to global sector approaches and CWB aspirations

The PDH project model should be used when communities have identified malnutrition as a priority, through the community engagement process described in the World Vision (WV) Development Programme Approach. This project model contributes primarily and most directly to the WV child well-being (CWB) aspiration of '*children enjoy good health*' and has a secondary impact on the aspirations '*children are educated for life*' and '*children are cared for, protected and participating*.' The PDH project model is also aligned with WV's Health and Nutrition Do, Assure, Don't Do (DADD) framework in contributing directly to the 'Do' of 'mobilise and build capacity of community-level maternal child health and nutrition stakeholders.'

In considering the most appropriate project models to implement within a community, it is important to ensure that the projects complement and support similar goals. For example, if the PDH project model is being adopted, consider implementing a supporting small scale, household-level agriculture and livelihoods, economic development, and/or WASH project as well.

2. Model Description

2.1. Strategic relevance of this model

2.1.1 Contributes to CWB objectives and Sustainable Development Goals (SDG) targets

The Sustainable Development Goals (SDG) put nutrition in its proper place – not just as essential for ending hunger and improving health but also vital for progress against the SDGs on Poverty, Education, Gender, Inclusive and Sustainable Economic Growth, and Sustainable Consumption and Production Patterns. WV contributes to achieving these SDGs by improving nutrition using a multi-sectoral approach, such as PDH (with, health, agriculture, livelihoods, education, social protection and water, sanitation and hygiene [WASH]). PDH directly contributes to the SDG goals #2: *End hunger, achieve food security and improved nutrition and promote sustainable agriculture* and #3: *Ensure healthy lives and promote well-being*, and it indirectly contributes to #5: *Achieve gender equality and empower all women and girls* and #6: *Ensure availability and sustainable management of water and sanitation.*

As a community-based, participatory project for addressing child malnutrition, PDH aligns with WV's ministry goal for the '*sustained well-being of children within families and communities, especially the most vulnerable*' and with

[1] Some projects expand this range to include children age 6-59 months, that is, all "children under-5", and include mildly underweight children as well.

WV's strategic global focus on improved health and nutrition for children. PDH also aligns with the new CWB objectives, including '*increase in children who are well-nourished'* and '*increase in children protected from infection and disease'* as the programme rehabilitates underweight children and also ensures children are fully immunisfed for their age, received vitamin A and deworming in the past 6 months prior to being admitted into the programme. PDH also refers underweight children with medical complications to health centres and severely acutely malnourished children to CMAM programmes, contributing to '*increase in children accessing essential health services*'.

Because the CWB outcomes are interconnected and PDH is a multi-sectoral approach, the model contributes to the following: *children are well nourished, children are protected from infection, disease, and injur, children and their caregivers access essential health services, children are cared for in a loving, safe, family and community environment with safe places to play, and parents or caregivers provide well for their children.*

2.1.2 Sector alignment

As PDH is a multi-sectoral approach with the main goal to rehabilitate malnourished children, its primary sector is Nutrition, but it is also contributed by Health. Water, Sanitation and Hygiene (WASH); Early Childhood Development (ECD); Economic Development; and Agriculture, Livelihoods and Resilience.

2.2. Expected benefits (impact) of the model

2.1.1 Root problem causes and core benefits

This project model is for communities with a high prevalence of underweight children either 30 per cent or greater (weight for age [WAZ]<-1.0), or 30 or more underweight children 6–36 months of age are mildly, moderately or severely underweight (low weight-for-age). In addition, malnutrition should also be identified as a community priority, food security must exist for at least 9 months of the year and homes must be in close proximity to each other.

If no nutrition data is available for the programme impact area, the following issues and root causes of malnutrition may emerge during community conversations that indicate that a PDH project may be needed:

- lack of knowledge as to how to prepare nutritious foods for children and how to feed children
- children lacking energy, prone to illness, slow to heal and lacking appetite
- children growing slowly or poorly
- children dying
- harmful cultural practices, myths and food taboos requiring behaviour change.

Root causes of the community's child well-being priorities are explored at Step 5 of the critical path.[2] At this point, the Health and Nutrition ADAPT tool will have been referred to and used to help explore root causes related to health and nutrition priorities.

PDH is one of several project models that may have been suggested as an appropriate means of addressing health and nutrition needs in the community. The project model's possible implementation should be considered, discussed and adapted to the context with local-level partners.

2.2.2 Target beneficiaries with emphasis on most vulnerable children

Malnutrition is the primary cause of immunodeficiency worldwide, and micronutrients deficiencies have effects such as poor growth, impaired intellect, and increased mortality and susceptibility to infection. Malnourished children are more vulnerable to infections and death.[3] PDH directly benefits specifically the underweight children (WAZ<-1.0) and/or moderately acutely malnourished children (weight for height [WHZ]<-2.0 and ≥-3.0) aged 6–36 months and in some countries, 6–59 months. PDH indirectly benefits the households of the underweight children, especially their younger siblings and caregivers as the programme empowers primary caregivers with underweight children with knowledge and positive practices to enable adequate growth and development of young children at a low cost. These behaviours include not only feeding and food choices but a holistic approach, including early childhood caring, water and sanitation, and health-seeking practices that contribute to preventing

[2] As described in WV's Development Programme Approach: http://www.wvi.org/development-programmes.
[3] https://academic.oup.com/cid/article/46/10/1582/294025/The-Interaction-between-Nutrition-and-Infection.

child malnutrition and promote child growth and development. Furthermore, changing the behaviours of the primary caregivers can help prevent future malnutrition in younger siblings and improve their own diet.

2.2.3 Contribution to transforming beliefs, norms, values and relationships

The goal of this project model is to increase the proportion of children in the community who are adequately nourished.

The benefits of such a project include:

- sustainable and quick rehabilitation of malnourished (underweight) children
- families being able to sustain the improved nutritional status of their children through new positive feeding, cooking, hygiene and caring behaviours
- preventing future malnutrition among children born in the community
- transforming beliefs that overcoming malnutrition does not need to rely on external resources and agencies but can easily be done at home using local resources and behaviour change
- raising awareness of malnutrition and that malnutrition can be affordably overcome
- easy integration with other interventions
- enabling the community to seek existing local solutions to address malnutrition
- improving relationships within the community among community leaders, health centre staff, community members and implementing agencies.

2.3 Key features of the model

2.3.1 Methodology

PDH seeks sustainable behaviour change at the individual and family level as well as at the community level in order to achieve the three goals of PDH: (1) quickly rehabilitate malnourished children, (2) sustain the rehabilitation and (3) prevent future malnutrition. There are three stages to the PDH process: preparation, education and rehabilitation, and follow-up. Following the training of the PDH facilitators/coordinators, initial community mobilisation and training of the community volunteers take place (refer to Table 2). At each stage, community stakeholders should be identified and coached to conduct the process. The preferred role of WV staff is to provide training and support to the community groups and volunteers who will carry out the actions. Table 1 outlines some of the differences between the PDH approach and the traditional nutrition education approach.

A. Preparation

1. Mobilise the community, raise awareness of the issue and build their ownership of the proposed solutions. This can be done using WV's Development Programme Approach (DPA). Conduct Situation Analysis, including wealth ranking; weighing all children under 36 months to determine who is malnourished and healthy; focus group discussions; transect walk and community mapping; market survey and seasonal calendar.
2. Conduct Positive Deviance Inquiry (PDI) to identify local practices which promote good nutrition.
3. Design six key Hearth messages based on PDI findings.
4. Address basic health needs for all children through de-worming, updating immunisations, providing micronutrient supplements if needed etc.

B. Education and rehabilitation

1. Develop Hearth menus using PD foods and other nutrient-rich foods which are locally available and affordable.
2. Conduct 10–12 days of Hearth sessions with small groups of malnourished children and their caregivers, preparing and feeding the Hearth menus and discussing the positive deviant practices.

C. Follow up

1. Volunteers visit Hearth graduates in their homes to assess progress and re-emphasise Positive Deviant practices.
2. Children who do not recover during Hearth are re-enrolled or referred to the health facility if there is an underlying illness.

3. Conduct regular growth monitoring to track children's progress and identify new cases of malnutrition.

Table 1. Comparison between PDH approach and the traditional nutrition education approach

Traditional Nutrition Education Approach	Positive Deviance/Hearth Approach
***Needs*-based: 'What is "wrong" here?' Based on **missing** resources**	***Asset*-based: 'What is right here?' Based on **existing** resources**
Assessment surveys can take up to ***six months***	Positive deviance inquiry (PDI) can take up
Depends on supply from outside	Generated by participants and community
Teaching what is ***not*** currently known	***Discovery*** of what ***is*** already known and practised by some individuals (positive
Solutions from ***outside*** the community	Solutions from ***within*** the community
Outside culture intervention; not always culturally appropriate	Culturally acceptable; based on ***indigenous knowledge***
Dependency, non-participatory; participants are **beneficiaries**	Empowering, participatory; participants are **actors** in their own development
Top down, vertical directives	***Bottom up,*** horizontal integration, variety of stakeholders
Design by ***donors, institutions and non-governmental organisations (NGOs)***	Equal partnership, in which ***community, caregivers and NGO*** partner to manage
External inputs not sustained after programme completion; impact diminishes	***Inputs from community*** sustained; impact sustained as well
Centre-based rehabilitation of malnutrition	***Home-based*** rehabilitation and practice; community-based
Expensive, in context of duration of benefits	***Low cost,*** in context of sustained rehabilitation, malnutrition and deaths
Run by outside ***experts*** and programme staff	Run by ***community*** and community volunteers and caregivers themselves with training and support from programme staff
NGO or health-agency owned	***Community-owned***
Teachers/nutritionist from ***outside***; health providers	***Local*** peer educators; volunteer providers
Passive recipients: caregivers of malnourished children	***Active participants:*** caregivers of malnourished children and family/community
Individual-focussed: considers caregiver isolated from cultural context and enjoys full decision-making power over his/her child	***Family-focussed:*** considers caregiver in the context of the family and cultural system and recognises grandmother's influential role as household advisors related to child care and feeding
KAP: Knowledge, Attitude, Practice; Knowledge change approach	***PAK:*** Practice, Attitude, Knowledge; Behavioural change approach
Short-term impact	***Sustained impact***

2.3.2 Implementation steps

There are 10 official steps to the implementation of PDH (see Table 2). The amount of time for each step will depend on the local context (with the exception of steps 6 and 7). An example of the timing is included for Steps 2–7 to guide discussion with planners. Each key step number is noted in the title of the relevant session in the ***PDH Trainer of Facilitator (ToF) manual.*** Monitoring and evaluation occurs throughout the process, as illustrated by the right-hand column as with community mobilisation.

Table 2. 10 key steps to PDH implementation

	STEPS	APPROXIMATE TIME REQUIRED	
Step 1	Decide whether the PDH approach is relevant and feasible in the target community. Ensure good local ownership of the malnutrition problem by linking to community priorities identified through the DPA.		Monitor and Evaluate
Step 2	Begin mobilising the community (mobilise or create Village Health/Hearth Committee or Health/Hearth Committee within the community); select and train staff.	Mobilising the community can take several months and takes place throughout the entire project period. Steps 2 to 4 can take approximately 2–3 weeks, including: 2 days of training 2 days for situational analysis 2 days for PDI 2 days for analysis and feedback to the community	
Step 3	Prepare for a PDI (situational analysis).		
Step 4	Conduct a PDI.		
Step 5	Design Hearth sessions.	2 days	
Step 6	Conduct Hearth sessions.	2 weeks	
Step 7	Support new behaviours through follow-up visits.	Every 2–3 days in the 2 weeks immediately after the Hearth session, and continuing less frequently after that	
Step 8	Repeat Hearth as needed. Monitor progress of Hearth graduates and track growth of all young children.		
Step 9	Expand the PDH programme to additional communities.		
Step 10	Exit strategy for once underweight is eliminated or area development programme (ADP) phases out		

2.3.3 Implementation details

Once the PDH project model has been identified as appropriate for the context and has been agreed on by the local-level partners and the community, project implementation begins.

The community participates in a process to discover their own sustainable and contextually appropriate solutions for malnutrition. This investigation includes weighing children within the community and discovering those who are, or are not, malnourished. The investigation serves as a baseline for the project and also provides a way of identifying children who are not malnourished. These children are referred to as positive deviants. A Positive Deviance Inquiry (PDI) is conducted in the households of these children, enabling the community to discover for

themselves the good health and nutrition practices in local families where children are well nourished. These practices may include identifying local foods to improve nutrient density, proactive child feeding techniques or positive hygiene practices.

Successful caring and feeding practices are taught by PDH volunteers to primary caregivers of underweight children in an intensive 10- to 12-day behaviour change activity ('Hearth' sessions). During the Hearth sessions, primary caregivers bring locally available nutrient-dense foods and learn to cook and feed nutritious meals to their underweight children.

Community volunteers invite a small group of caregivers (usually 6 to 10 mothers) with malnourished children to their homes for 10–12 consecutive health and nutrition education and rehabilitation sessions (NERS). During each daily session, the caregivers prepare the local recipes together and the volunteer encourages them to learn and practice the recommended child feeding and care behaviours. The children are fed a nutritious meal and snack based on the local foods identified in the PDI. The PDH meal is an extra meal and is not meant to diminish the number of meals the children consume at home. Each family contributes to the sessions by bringing a food item or another necessary input such as firewood or a cooking pot. Caregivers feed their children, learning how much food to feed them and how to encourage them to eat more.

Over the 10- to 12-day period, the children often visibly improve, showing more energy and increased appetite and weight gain. After the sessions are over, the volunteers follow-up with home visits to further encourage families to continue applying the learned behaviours. The weight of children is monitored for several months. Caregivers with children who do not gain adequate weight are encouraged to complete the session again, bringing their child. If the children do not gain weight after the second round, children are referred to the health centre for a medical check-up in case of medical complications.

Experience shows that 'Hearth' sessions are most successful when limited to 6 to 10 caregivers. The project works best when it is started in a small number of locations and then gradually expanded to rehabilitate all malnourished children in a primary focus area, and where the model is integrated with food security, agriculture and economic development activities.

The PD approach and formative research process, including the 'situation analysis' and PDI can be applied to ADP designs and re-designs to develop integrated contextualised messages cross-sectorally. Refer to *PDH ToF Manual*, pages199–200.

2.4 Level of evidence for the model

2.4.1 Evidence analysis framework

The results of a WV PDH review (Positive Deviance/Hearth Programme Review 2009, WVI) show that in the WV context PDH is most successful when it is intentionally integrated with at least one other nutrition and health intervention or one other sector. Targeting the same households with complementary interventions increases the effectiveness of the project model.

Complementary health and nutrition interventions include:

- behaviour-change communication on maternal nutrition, infant and young child feeding (IYCF), and maternal and child health
- growth monitoring and promotion
- health services, such as integrated management of childhood illnesses, including immunisations, micronutrient supplementation and de-worming.

Complementary sectors include:

- agriculture or food security projects
- water, sanitation and hygiene projects
- early childhood care and development
- economic development projects.

Integration of sectors is achieved not only when the sectors work together to improve child well-being but also when the sectors share a common indicator, such as the weight and age (WAZ) of children.

Finally, the review found that the intentional consideration of cultural issues, such as including fathers, grandmothers or traditional chiefs and village leaders in the projects and trainings, resulted in more support for the project and long-term sustainability and success.

Based on the 2009 finding, WV is promoting the integration of the PDH project model with food security projects. Complementary activities, such as producing and increasing access to nutritious foods for household consumption while at the same time using these foods in Hearth cooking sessions, contributes to improving outcomes of agricultural and nutrition interventions on child well-being. Ensuring dietary diversity also contributes to sustainability.

Other examples of integration include water and sanitation projects, health, and gender and family relations initiatives. Ideally, PDH includes interventions addressing all the key causes of malnutrition. It improves access and availability of nutritious foods, promotes positive behaviour change, uses family resources especially for food and health care, promotes positive practices related to child care, increases access to clean water, improves sanitation and hygiene, and encourages positive gender relations. PDH may also address other underlying contributors to malnutrition such as alcoholism or low self-esteem of parents by instilling hope and knowledge into the primary caregivers in ways to overcome malnutrition using existing resources in their home, giving them hope of becoming a good parent or parents. Fellow Hearth participant caregivers can become a support network to overcome addictions such as alcoholism and to help caregivers to refocus and prioritise the care of their children over their addictions. Such practices were found in Uganda and Bangladesh. Within the Latin American and Caribbean region, there have been examples of integrating early childhood stimulation into the 'Hearth' sessions, so the children grow in social, cognitive and motor abilities as parents support the holistic development of their children.

2.4.2 Evidence of effectiveness

Furthermore, a recent systematic review on the PDH approach included 24 studies in total, 10 peer-reviewed papers and 14 grey literature.[4] Nine programmes used pre- and post-test designs without a control and eight used non-randomised trials or randomised cluster control trials. Of the eight programmes reporting nutritional outcomes, five studies assessed the effectiveness of PDH to promote behaviour change in caregivers to rehabilitate malnourished children and showed positive nutritional status outcomes. The qualitative results had unanimous high levels of success, but overall, the results were mixed for programme effectiveness.[5]

2.4.3 Evidence gaps

Only two studies included a control group and more studies are needed to show the effectiveness of PDH to not only rehabilitate underweight children, but to also sustain rehabilitation and prevent future malnutrition in a controlled setting where the programme quality can be ensured to assess the true effectiveness of PDH.

2.4.4 Sustainability of outcomes

PDH is very sustainable if implemented following the 10 key steps. It does not require as much funding as other programmes such as Community-based Management of Acute Malnutrition (CMAM), but it does require a lot of human resources and time especially at the beginning of implementation. Once the programme is stabilised, and systems are put in place, such as Hearth volunteers and monitoring systems, it is a very sustainable programme, and rehabilitation of malnourished children are sustained with the permanent behaviour changes of primary caregivers. Permanent behaviour changes of the primary caregivers are sustained through the 12-day Hearth sessions, where they practice the behaviour changes promoted for two weeks and are then followed up at home for up to two to three times a week for two weeks where volunteers help to overcome any barriers faced at home in continuing the practices. Hearth Committees and/or Health Committees are also used to support the participant caregivers to continue the behaviour changes at home once Hearth sessions are completed to ensure sustained practices and to ensure the Hearth sessions are continued by the community.

[4] Bullen PAB, 'The positive deviance/hearth approach to reducing child malnutrition: systematic review', *Trop Med Inter Hea* (2011); **16** (11): 1354-1366.

[5] Ibid.

2.4.5 Evidence rating

The following table provides a detailed analysis of the evidence review carried out by the project model review panel in 2017. Ratings and colour coding range from 0 per cent (red) to 100 per cent (deep green), indicating poor to high quality respectively.

0%	20%	40%	60%	80%	100%
Very Poor	Poor	Fair	Average	Good	Excellent

The review of the supplementary material provided good evidence of impact for the model, although admittedly this was not consistent across all sources. The effectiveness of the model was tested via less rigorous methodologies with poor control over potential external factors. The sampling methods were either not reported or found to be poor.

		Evidence Rating		
	Evidence Material	**A**	**B**	**C**
Evidence Criteria	Relevance	**0%**	**100%**	**83%**
	Effectiveness	**33%**	**66%**	**67%**
	Internal Validity	**13%**	**49%**	**85%**
	External Validity	**53%**	**23%**	**86%**
	Average Score	**69%**	**77%**	**65%**

A: PD Hearth in 7 countries in Asia and Africa
B: Report of the Pos Gizi assessment
C: Reducing child malnutrition: Systematic review

For more information on the evidence review criteria and process, please contact the Evaluation and Impact Reporting team.

2.5. External validity

2.5.1 Countries and contexts where the model was tested

PDH has been successfully implemented in Africa and Asia. It is currently being implemented in 30 countries in both rural, urban, fragile and transition contexts. From seven countries[6] that submitted data for 2016, over 56,000 underweight children under 5 years were admitted into PDH, with 65 per cent gaining adequate weight[7] in three months and 54 per cent fully rehabilitated[8] and graduated from PDH. In Bangladesh alone, over 49,800 underweight children were admitted into the two-week PDH programme.[9] Participating children were followed-up in their homes three months after discharge, and underweight (WAZ<-2) had decreased from 81 per cent (n=40,170) on admission to only 46 per cent (n=15,271), indicating not only sustained but ongoing improvements in nutritional status. At six months, further improvements were documented, with only 37 per cent (n=7,604) underweight among those who had participated in PDH – further evidence of participant caregivers' sustained behaviour change to improve their child's nutrition.

PDH is likely to work best in the following situations:

[6] Data was submitted by Bangladesh, Burundi, Cambodia, Kenya, Laos, Myanmar and Vietnam.
[7] Adequate weight gain at 3 months is gaining ≥900g.
[8] Rehabilitated/graduated refers to children who have improved in their nutritional status to WAZ≥-2.0SD at 3 months if admitted as 'moderate or severe' underweight or gained ≥900g at 3 months if admitted as 'mild' underweight.
[9] Includes data from 53 ADPs and the Nobokoli special project.

- where ≥30 per cent of the community's children OR ≥30 children 6–36 months of age[10] are mildly, moderately, or severely malnourished (low weight-for-age)
- in locations where families live close enough to be able to meet daily for two weeks
- in locations where community members are willing to take an active role and where the community is supportive of the project
- where food security or agriculture projects are ongoing or planned (availability of affordable nutritious food is important and projects such as household gardens, poultry and egg production, and raising small animals is important for the sustainability of the outcomes of this project)
- where complementary health services are present (being able to refer children who have underlying illnesses or medical conditions is important; it is also important to work with functioning health centres to provide important inputs, such as deworming, immunisations and micronutrient supplementations)
- where growth monitoring is taking place so that malnourished children can be identified
- where there is a stable population who identify as belonging to the community
- where there is organisational commitment of local level partners.

PDH can be implemented in rural and urban areas if the above criteria are met.

PDH is difficult to implement, or should not be considered, in the following situations:

- areas suffering from extended drought for periods of more than three months
- areas suffering from household food insecurity for periods of more than three months (However, aspects of the *PDH* approach may still be implemented with some adaptations in these areas.)
- where food aid activities are being conducted
- areas with internally displaced populations and refugees (However, using the positive deviance approach without the hearth component may be useful to identify effective coping strategies and skills for these areas.)
- where households are vastly scattered
- communities with landless populations or squatter communities (This is difficult unless the project model is combined with some type of income-generation project to support household food security.)
- where there is significant ongoing conflict
- in emergency settings.

Some of the questions that need to be considered are about the identification of children from the most vulnerable groups. When identifying malnourished children, extra care needs to be taken to ensure that children from vulnerable or marginalised groups are included. For example, disabled children may be hidden or children from ethnic minority groups may be excluded. The Health/Hearth Committee can review the work done by the starter group in earlier steps of the critical path. For example, in Step 3, the starter group defined vulnerability for the area and created a map of the most vulnerable households. This information can be used to identify the most vulnerable children.

If this project model is being considered for an urban area where there is limited space for complementary projects, such as small animal keeping or household gardens, consider other innovative complementary projects that would still allow PDH to proceed. Likewise, if working with squatter populations, it may be possible to adapt the project model to fit the context, but it would require some flexible, imaginative and innovative approaches. For example, pairing the PDI with a behaviour change methodology that is more contextually appropriate may be more suitable if the caregivers are unable to meet on a daily basis for the 10–12 days of 'Hearth' sessions.

Other projects that may complement PDH and could be implemented simultaneously are projects that address the root causes of malnutrition and illness, such as food security or water and sanitation projects.

[10] In some contexts, children 6–59 months of age are included.

3. Model Implementation Considerations

3.1 Adaptation scope during design and implementation

Please refer to the list of 'Essential Elements' in the *PDH ToF Manual* on page 150, and refer to the PDH Implementation Quality Assurance tool calculator or the list of core features of the model. Please refer to the Feasibility of PDH in the *PDH ToF Manual* on page 36 for the context required for PDH to be an appropriate project model of choice.

PDH could be implemented as a stand-alone rehabilitation programme for underweight children. However, it is highly recommended to also share the same contextualised PDH messages with the larger community through Mother Support Groups, Care Groups, radio messaging, and/or other existing platforms in the community. It is also highly encouraged to integrate PDH with agriculture/livelihoods interventions such as kitchen gardens or small animal cooperatives to increase the availability of the nutritious low-cost foods, also known as 'Positive Deviant' (PD) foods in the household. If it is the first time PDH is being implemented, it is highly recommended to start PDH in one to three villages and to scale-up to more villages after the first three months, applying the learnings from the first round of Hearth sessions. Integration of agriculture/livelihoods and other sectors is encouraged starting the second year of implementation.

3.1.1 Fragile contexts

PDH cannot be implemented in unstable contexts. However, it can be adapted in fragile yet stable contexts such as refugee camps. The steps of PDH are on page 35 of the *PDH ToF Manual*. Steps 1 to 10 could be applied, but the only adaptation would be to include the nutritious foods from supplementary food programmes (SFP) in the menu design if all households with children 6–36 months (or in some cases 6–59 months) of age receive food rations. PDH could also be integrated with the project model, Community Management of Acute Malnutrition (CMAM) if not already integrated. All severely acutely malnourished children from the initial assessment screening should be referred to the outpatient therapeutic programme or stabilisation centre (if medical complications apparent). Children participating in SFP could be simultaneously referred to the PDH programme. The integration is only recommended in countries with an existing stable PDH and/or CMAM programme.

3.1.2 Transitioning economies

Nothing in the steps of PDH implementation needs to be further adapted in transitioning economies. The existing tools and materials could be utilised as is.

3.2. Partnering scope

A Health/Hearth Committee is formed in Step 5 of the critical path. A list of potential partners (members of the Health/Hearth Committee, also known as the 'working group') is provided below. Local government representatives are essential members of the working group.

Table 3. Recommended local partners

Partner(s)	Key partnership roles
• Local Ministry of Health • Health providers • Ministry of Social Welfare • Ministry of Agriculture • Ministry of Education • Health post staff • Birth attendants • Village doctors • Village health workers • Community health workers • Agriculture extension workers • Early education workers	• Provide health services (i.e. immunisations, deworming, micronutrient supplements) • Train volunteers • Conduct growth monitoring and promotion • Aggregate growth monitoring results and communicate to district and national levels • Communicate behaviour change messages • Promote, train, support changes in agriculture and food security • Promote healthy nutrition within day care, identify at risk children, ensure hygiene, and offer ways for women to continue breastfeeding • Involve parents in early stimulation
• Non-governmental organisations • Community-based organisations • Village development committee • Village health committee • Faith-based organisations • Churches	• Facilitate community mapping and baseline assessments • Facilitate community mobilisation and sensitisation • Communicate and promote 'Hearth' sessions • Assist in the selection of guide mothers and formation of groups • Share and validate results with community members • Provide training

	• Implement complementary activities (e.g., water, sanitation, and hygiene activities) • Implement 'Hearth' sessions as volunteers • Participate as part of PDI team • Monitor children
• Community groups • Women's groups • Farmers' groups • Volunteers	• Implement 'Hearth' sessions as volunteers • Participate as part of the PDI team • Monitor children

Table 4. Partnering capacity context

Context (Refer to Step 5 of the critical path)	**Guidance on implementation**
Few, or no, organisations	• Moblise partner organisations
Weak organisations	• Build capacity in partner organisations
Strong organisations that are not child-focused or networked	• Catalyse a movement towards focusing on child well-being and protection and build understanding of the impacts of under-nutrition on children, adults and communities
Established child-focused partnership	• Join with child-focused partners to further expand and roll-out effective practices that positively impact child nutrition and child well-being

Involving the community in the initial assessment and discovery of how to treat and prevent malnutrition using local foods and practices builds ownership and increases the likelihood that community members will adopt PDH good practices for fighting malnutrition. The project facilitator (WV staff) and the Health/Hearth Committee guide the community in finding solutions to the challenges of malnutrition, working with community members during design, implementation, monitoring and evaluation. Using local wisdom and resources increases the project's long-term goal of sustained child nutrition and decreases reliance on WV.

Aligning the project with government policies creates the potential for disseminating lessons learned more broadly and opens the possibility of advocating for policy change.

3.2.1 Case studies of successful partnering for this model

PDH highly encourages the strengthening of Ministry of Health (MoH) staff rather than setting up parallel systems. From programme implementation experience in Bangladesh and Burundi, using an existing Health Committee or forming a Health/Hearth Committee has been a factor for success in PDH implementation. Furthermore, involvement of local government representatives as essential members of the Health/Hearth Committee has also been critical – especially as PDH participant children require vitamin A, deworming and complete immunisation for their age prior to joining Hearth sessions. This requires partnership with the local health centres. Involving the local government also ensures the local government takes ownership of the programme and the programme is sustainable even after WV leaves the area.

3.2.2 Value proposition of partnering

WV also partners with existing local community-based organisations (CBOs), local NGOs, civil society, faith-based organisations (FBOs), and community groups, such as Mother Support Groups, to maximise awareness and coverage of the programme, effectiveness and to make large programme scale-up possible. PDH highly encourages the involvement of CBOs, religious leaders or FBOs, members of Health Committees, and civil society in the situation analysis and PDI steps in the programme design. The discovery process of existing resources and identification of major challenges contributing to malnutrition is done together to create ownership of the programme and to increase the awareness of the community as well. After the implementation, the Health Committee and/or Hearth Committee, consisting of religious leaders, community members, CBO members, etc., meet regularly to ensure the Hearth sessions are running smoothly and support the PDH volunteers whenever they run into challenges (such as, unsupportive mother-in-laws or poor attendance of primary caregivers during Hearth sessions). The Health/Hearth Committee members get involved and advocate for the primary caregivers in their homes to create a supportive environment for behavior change, including addressing the issue of discouraging mother-in-laws who prevent behaviour change and emphasising the

importance of attending Hearth sessions through home visits to primary caregivers who have poor attendance. Thus, PDH values the importance of partnering with existing stakeholders and the community.

3.3. Local to national advocacy (as relevant)

Citizen Voice and Action (CVA) can be used alongside PDH to strengthen the sustainability of the project outcomes. CVA can be used to highlight any weaknesses in government service provision relating to the quality and effectiveness of the local health post and community health workers, and their role in supporting the village volunteers and village health committees. CVA only works where there is existing government policy and is designed to highlight gaps between the policy expectations and the quality of local services. A first step in using CVA is to research and understand what the government policy says about local health provision.

Within the scope of this project model, advocacy activities may focus on improving access to local health services, including advocating for the integration of growth monitoring protocols within the local government health infrastructure, and for access to adequate health services such as Vitamin A, deworming, and immunisation to reduce illnesses which aggravate malnutrition. Such advocacy activities support the main goals of PDH and make PDH outcomes more sustainable.

Prior to adopting CVA, the initial 'organisational and staff preparation' phase must have been completed by the national office. Communities should be ready to engage government officials in a constructive, productive and well-informed manner. It is also essential that programme staff are trained in CVA and have excellent facilitation skills. For more information, see the Citizen Voice and Action project model on the Guidance for Development Programmes website: (www.wvdevelopment.org).

4. Programme logic

The goal of this project is to increase the proportion of children in the community that are adequately nourished.

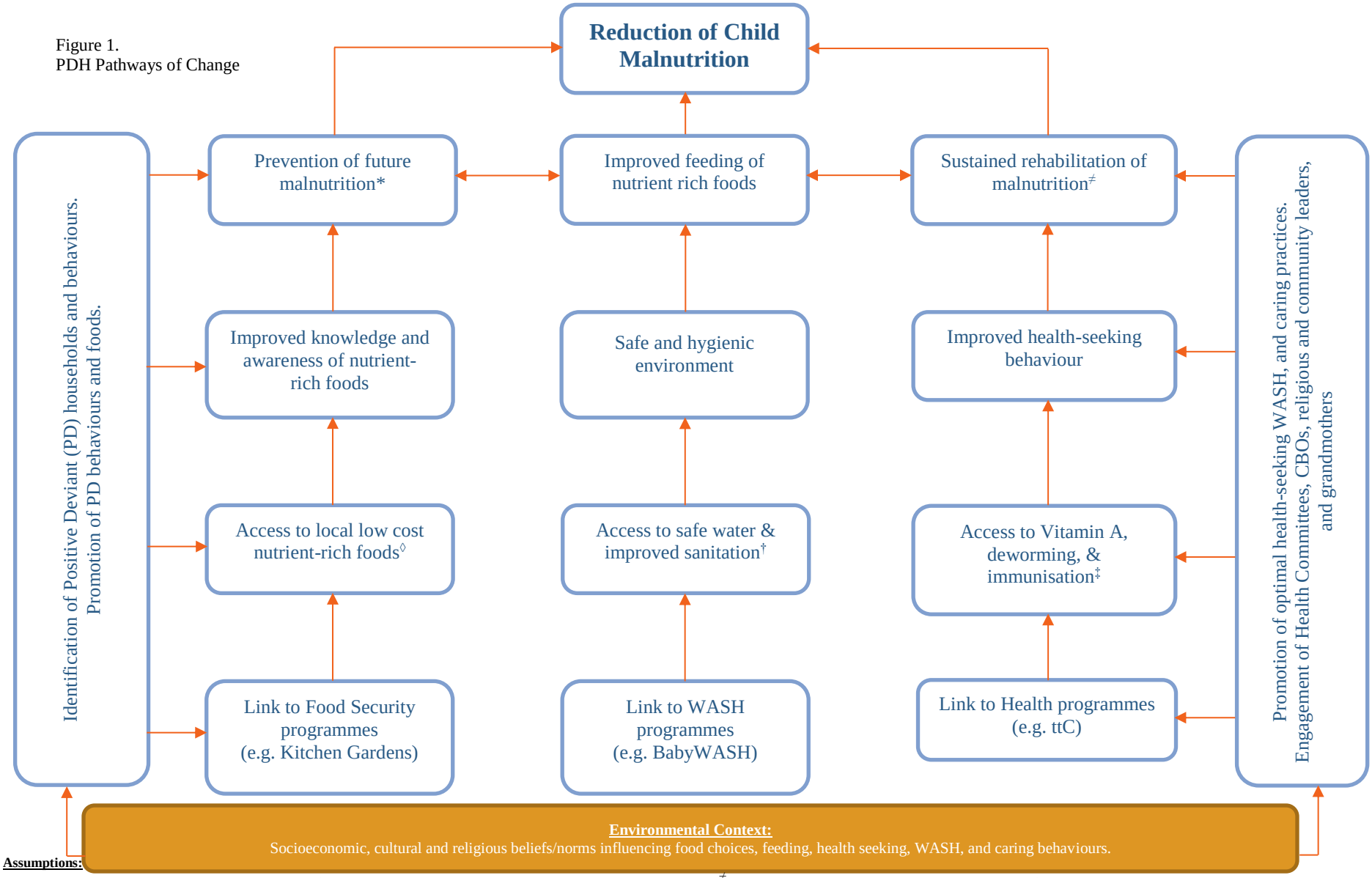
The desired outcomes are as follows:

- malnourished children are rehabilitated through PD/Hearth sessions
- families are able to sustain the rehabilitation of children
- future malnutrition in the community is prevented
- local partners have the capacity to monitor children and provide Hearth sessions (as needed).

4.1. Pathways of Change and Logic Diagram

The diagram below shows the logic of this project model. The indicators shown below illustrate the types of indicators that can be used. An illustrative logframe including a range of potential indicators is provided in Table 5.

Figure 1.
PDH Pathways of Change



Assumptions:

*Primary caregiver continues to practice PD and optimal feeding caring, and health-seeking practices with the rehabilitated child; ≠Primary caregiver continues to practice PD and optimal feeding, caring and health-seeking practices with the younger siblings of the rehabilitated child; ◊There is a minimum of nine months of food security and the context is stable; †There is access to safe water and WASH programmes; ‡Health centres/posts do not have stock outs and have Vitamin A, deworming and immunisation services available.

4.2. Use of standard indicator and alignment to CWB objectives

Table 5. PDH illustrative log frame

Hierarchy of objectives	**Indicator**	**Means of verification**	**Assumptions**
PROJECT GOAL: Improved nutrition status of children 0–36 months in community	% decrease of children 0–36 months with weight-for-age <-2SDs from the median (WAZ) (if data for 0–36 months of age group is not available, then use data for children 0–59 months of age)	Measuring Child Growth tool, as part of caregiver survey, Baseline nutrition assessment	Accurate weighing technique
Outcome 1: To rehabilitate malnourished children through PDH sessions	# and % of PDH participant children 6–36 months with: i) weight-for-age nutritional status of mild or healthy (WAZ ≥-2) at 3 months if admitted as moderate or severe underweight (WAZ<-2) **OR** ii) ≥900g of weight gain at 3 months if admitted as mild underweight (WAZ between <-1 and -2)	Measuring Child Growth tool, Project monitoring sheets (PDH database), growth monitoring and promotion (GMP)	Accurate weighing technique
Output 1.1: Malnourished children are identified and their caregivers participate in PDH sessions	# and % of caregivers and malnourished children participating in PDH sessions	PDH attendance sheets	Careivers are able to attend all of the PDH sessions (maximum 2 days of absences)
Output 1.2. Malnourished children who participated in PDH sessions show weight gain	# and % of PDH participant children who gained 400g in 1 month	Measuring Child Growth tool, Project monitoring sheets (PDH database), GMP	Continued access to affordable food
Output 1.3: Malnourished children who participated in PDH sessions have improved diets	# and % of PDH participant caregivers who prepare the PDH menu at home	Home visit monitoring forms	Accurate weighing technique used
Outcome 2: To sustain community efforts in the rehabilitation of malnourished children	# and % of PDH participant children with weight-for-age nutritional status of mild or healthy (WAZ ≥-2) at 6 months	Measuring Child Growth tool, Project monitoring sheets (PDH database), GMP	Accurate weighing technique used
Output 2.1: PDH households are supported over time by community health workers	# and % of PDH households that have received a documented visit	Home visit monitoring forms	
Output 2.2: PD/Hearth beneficiaries are supported by local community structures	# of local partner groups providing support to PDH implementation	Shared project implementation plan, Home visit monitoring forms	

Hierarchy of objectives	Indicator	Means of verification	Assumptions
	# of faith leaders who participated in hygiene, sanitation, or behaviour change programming* # of churches/FBOs participating in programming focused on improving CWB		
Outcome 3: To prevent future malnutrition in the community	# and % of children who have participated in PDH whose younger sibling is the normal weight-for-age (WAZ≥1)	GMP or cross-sectional household surveys	
Output 3.1: Community is aware of nutrition situation and is involved in the implementation of PDH	# of local partner groups involved in raising community awareness about the nutrition situation	Documentation of communication activities	Mothers and caregivers share the content of trainings
Output 3.2: PDH households are benefitting from interventions that address underlying causes of malnutrition	# of PDH households benefiting from agriculture, water and sanitation or economic development projects	Shared project enrolment and attendance sheets	Shared projects are implemented to address underlying causes
Outcome 4: To improve care and feeding practices of caregivers in PDH sessions	% of children aged 6–23 months who received food from at least four food groups during the previous day (from *Compendium of Indicators)* % of parents or caregivers who recall practising hand washing using an effective product, such as soap or ash, at least two out of four critical times during the past 24 hours (from *Compendium of Indicators)*	Caregiver survey	
Output 4.1: Caregivers who participated in PDH sessions are practicing appropriate health and hygiene behaviours	# and % of PDH caregivers who report practicing appropriate health and hygiene behaviours such as: • hand washing • faeces disposal • oral rehydration therapy (ORT) during recent diarrhoea episode	Home visit monitoring forms	

Hierarchy of objectives	Indicator	Means of verification	Assumptions
Output 4.2: Caregivers who participated in PDH sessions are practicing appropriate feeding behaviours	# and % of PDH caregivers who report (or are observed) feeding their children using practices taught in PDH sessions	Home visit monitoring forms	

*If Channels of Hope (CoH) is being integrated as an enabling model, please use the full suite of CoH indicators available in the CoH project model under the following outcome: Faith communities participate in actions that contribute to child well-being.

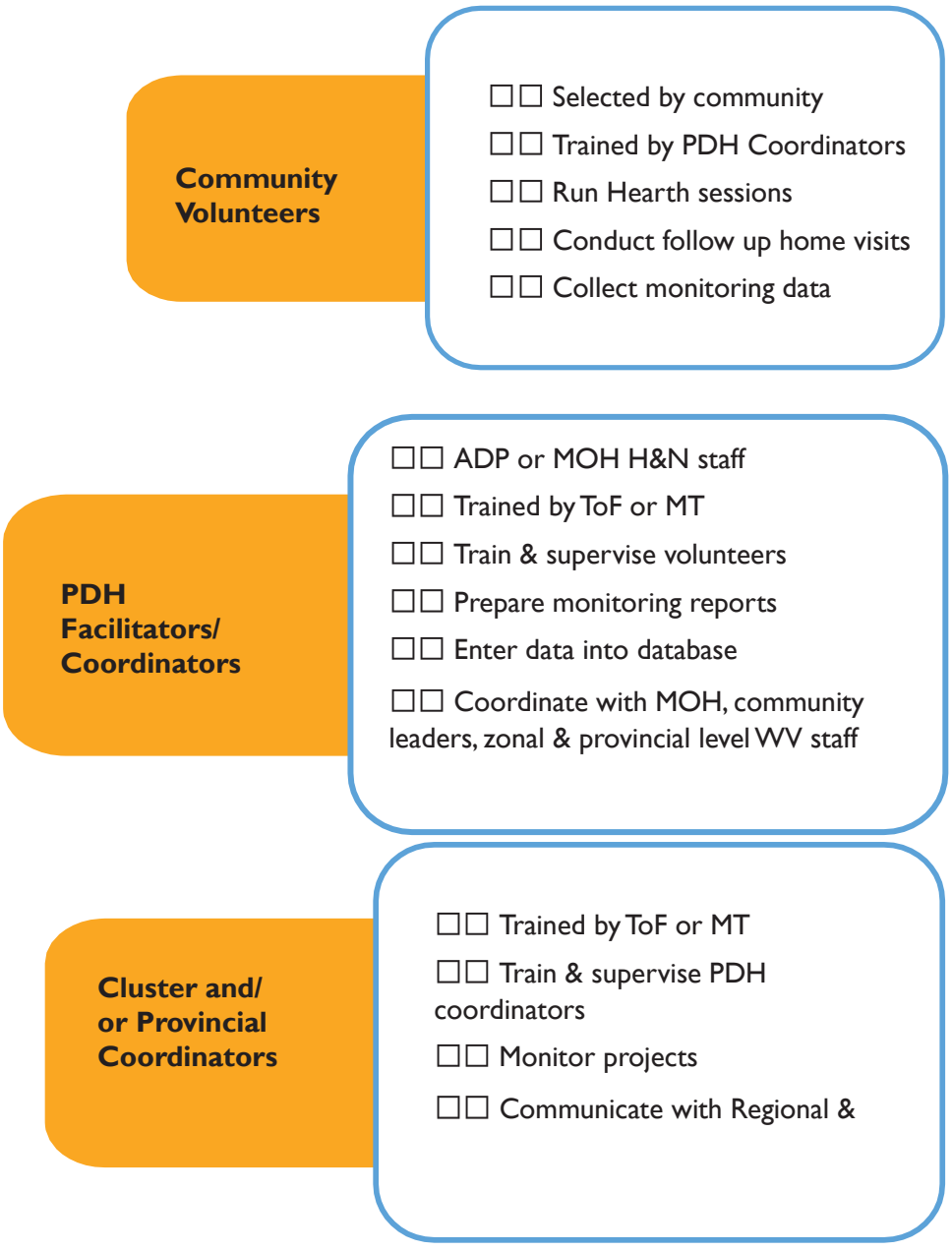
4.3. Information flow and use

Volunteers collect the data using pen and paper on the monitoring formats and submit to the PDH facilitator. The PDH facilitator/coordinators enter the data into the PDH database and submit the data to the cluster manager or provincial/regional Health/Nutrition coordinator who will review and provide feedback to the PDH facilitators making necessary changes to improve program quality (e.g. retraining volunteers, adjusting the menu). They will then consolidate the data for the cluster, region, or province and submit the data to the National Health/Nutrition Specialist or Coordinator. The National Health/Nutrition Specialist or Coordinator will review the data and provide feedback to the cluster, provincial, or regional Health/Nutrition coordinators. The implementation quality assurance (IQA) tool is highly recommended to be used biannually or annually to assess the quality of the PDH programs according to the Essential Elements. Refer to the flow chart of World Vison's PDH reporting line below. *Refer to PDH ToF Manual Pg. 170-174 and 150-153 for more information on the Monitoring and Evaluation of PDH programs.*

PDH ensures the data collected from the situation analysis and PDI are shared with the community. The six key Hearth messages and how they were derived are also shared with the community through community feedback sessions prior to starting Hearth sessions. The community participatory monitoring is also used to keep the community involved in the program and so they could also witness the improvements in their community's state of malnutrition. Graduation ceremonies take place within the community on a quarterly or bi-annual basis to celebrate with the community of all the children who have been rehabilitated.

The PDH database summary data is also shared with the health centre staff and district health office in contexts where they are requested. It is also highly encouraged to share the PDH summary data with the Health/Hearth Committees at annual Community Review meetings, where community members review the past year's achievements and adjust plans for the next period.

Figure: Flow Chart of World Vision's PDH Reporting Line



National WV and MOH entities

National Health & Nutrition Coordinator

☐☐ Trained by MT
☐☐ Train PDH Coordinators
☐☐ Overall programme direction & monitoring
☐☐ Lead programme evaluation
☐☐ Communicate with national entities;

WV Regional Nutrition Advisor
☐☐ Advocate for PDH to MOH & MinAgri

Recommended monitoring methods

Regular meetings are held with the Health/Hearth Committee and key stakeholders to discuss the project's progress, reflect on improvements and discuss challenges. These meetings create space for reflection and for making necessary adjustments, ensuring the project stays on target and reaches its goals (Table 6).

Table 6. Monitoring methods

Method	Characteristics
Health Monitoring	• The Health/Hearth Committee supports and supervises community volunteers and stakeholders to ensure children are regularly monitored.
Project supervision	• The Health/Hearth Committee, including WV and the local MoH, supervise implementation. • Regular meetings are conducted with the Health/Hearth Committee and other key stakeholders. • The Health/Hearth Committee advocates with local or district leaders or government agencies for changing policy where needed.
Project monitoring and evaluation	• The Health/Hearth Committee facilitates the collection of data by community workers, including local MoH staff. • The Health/Hearth Committee consolidates data and helps the community to analyse and interpret the data. • A technical nutritionist is required to analyse the anthropometric data. • The Health/Hearth Committee facilitates reporting back to communities during the Annual Community Review and Planning meetings and to donors. • The Health/Hearth Committee conducts an end-of-project evaluation.

5. Management considerations

5.1. Guidelines for staffing

Success requires a commitment by support and national offices and programmes for funding, adequate technical support, development of partnerships, and adequate preparation and training. Table 7 outlines commitments required at the international, national, programme and community, and household level to ensure success.

Having a project coordinator at the programme level is recommended. This person must have a solid and comprehensive understanding of the project's concepts and principles in order to provide adequate oversight. Having an adequate number of Hearth facilitators is also recommended. The number of facilitators is based on the number of volunteers and groups that are planned. Ideally there should be one Hearth facilitator to every 20 volunteers. The facilitators should have a background in nutrition and health and the ability to work with communities and mothers' groups.

Project staff must have the following competencies and skills:

- weighing and measuring children
- training community members in proper weighing techniques
- identifying cases of severe malnutrition with medical complications or oedema for referral
- participatory training skills for leading community volunteers through Hearth sessions
- understanding of infant and young child feeding and nutritious foods
- working with community health workers and health centre staff
- training and coordinating community volunteers.

The project relies on community volunteers working directly with participant families. The volunteers are trained by and work with the Hearth facilitator. They are essential to PDH projects. The two minimum requirements for all volunteers is a commitment to the project's goals and each volunteer must be nominated by the community. One volunteer is required for every six to ten caregivers or every six to ten malnourished children. Several Hearth sessions can take place in a community at the same time if there are an adequate number of trained and available volunteers.

Women, typically mothers, are the most common volunteers. However, other community members are also encouraged to participate. In areas where child abuse is highly prevalent, it may be necessary to include an orientation

of volunteers and community to understand the importance of child safety and protection. The Child Protection Facilitation Guidelines, Session 1, could be used for the training.

- Fathers: Including fathers can encourage male participation in childcare responsibilities. Several countries are using 'father-guides.'
- Adolescents: The aim of including adolescents is to prevent future malnutrition. Adolescent volunteers may be introduced to develop the skills of younger women before they have their own children, or to support an illiterate mother or grandmother in her role as caregiver.
- Grandmothers: WV Senegal and WV Mauritania recognise the participation of grandmothers in the Hearth sessions as a critical component for success.

Success requires a commitment by support and national offices and programmes for funding, adequate technical support, development of partnerships and adequate preparation and training. Table 7 outlines commitments required at the international, national, programme and community, and household level to ensure success.

Table 7. Commitment requirements for PDH implementation

Level	**Activity**
International	• Develop partnerships with international PDH practitioners. • Raise awareness and understanding of the project model and advocate for its implementation. • Provide guidelines for the project model (monitoring and evaluation, IYCF). • Coordinate capacity building and accreditation (training of master trainers). • Support the regional and national offices in developing tools for the programmes. • Provide technical assistance. • Conduct operational research of innovations to the project model.
National and provincial	• Advocate and coordinate with key partners to ensure PDH learning from the programme level is incorporated into policy and programmes as appropriate. • Provide programmes with national protocols for health and nutrition and promotion of IYCF practices. • Provide national level links with government ministries for the sustainability of PDH programme learning or for scale-up of the programme. • Provide technical assistance with training of trainers, weighing techniques and GMP. • Provide technical assistance for the analysis of menus, nutrient analysis of local foods, application of PDI findings, calculation and approval of menu ensuring adequate energy, iron and other nutrients for children of various ages. • Provide technical assistance in training and supervising the growth and accessibility of nutrient-rich foods, increasing the accessibility to locally available, indigenous foods and raising animal sources of food. • Provide regular monitoring and supervision of district, zonal nutrition/health coordinators, including collation and evaluation of results for effectiveness and for action to improve projects (assessment, analysis and action). • Advocate for improved access and availability to health and agriculture services. • Track and systematise implementation, process and impact.
District and programme	• The district or programme technical coordinator trains community volunteers in the PDH project model; mobilising the community, training in nutrition assessment and screening skills, conducting the PDI, training in participatory education and counselling skills, training volunteer mothers in leading Hearth sessions. • Build partners' capacity to implement community-based interventions to rehabilitate malnourished children and prevent malnutrition. • Facilitate improved networking among partners. • Promote routine growth monitoring and counselling systems. • Supervise and ensure access to key messages and technical support for agriculture.
Community	• Identify and recommend volunteers to lead Hearth sessions (mothers, fathers, grandmothers or village chiefs). • Participate in identifying malnourished children. • Provide feeding and caring behaviours. • Facilitate *PD/Hearth sessions* for 10–12 days for participating caregivers and their malnourished children. • Monitor children and caregivers through follow-up household visits.

	• Participate in growth monitoring of children at 1, 3, 6 and 12 months post-Hearth. • Mobilise the village health committee or the Hearth committee to support PDH. • Monitor project's progress and ensure communication of progress to community.

There are four levels of PDH implementers including:

- Volunteers
- ADP/District-level staff (e.g. Development Facilitators, Health and Nutrition Officers, Ministry of Health, Local NGO partners, etc.)
- Regional or Provincial Health and Nutrition Coordinator
- National Health/Nutrition Specialist or Coordinator

The competencies at each subsequent level are progressive. Each level requires competence in the previous level as well as the skills listed for the level. Refer to *PDH Training of Facilitators Manual*, pages xvii–xxiv.

PD/HearthVolunteer

Skill	Volunteer	Knowledge required
Community mobilisation	- Motivational skills - Identify key stakeholders in community - Identify key locations to promote PDH (e.g. church setting, community meeting, communal gardens) - Mobilise a PDH Committee (consists of leaders, fathers, grandmothers of community)	- Understand Theory of PDH and importance of PDH - Various roles important to success of PDH in community - Who the decision-makers are at household level
Measuring growth	Weigh children	- Importance of proper weighing technique - Ability to weigh properly
	Plot weights on growth chart	Plot and interpret growth lines
	Counsel caregivers	- IYCF practices - Communicate effectively with caregivers
Active participation in PDI	Observation skills	Factors that contribute to good child growth
	Semi-structured interview skills	Asking questions
	Guided identification of good/bad behaviours	Reflection of information gathered and how it contributes to child growth
Menu preparation	Making menus for Hearth	- Basic food groups - 'Special' (PD) food - Prep of recipes - Calculating portion size for children

Conduct Hearth sessions	Motivate/organise children/caregivers to attend Hearth	- Goals of programme - What is a Hearth - How to set up a Hearth - Role of each person
	Supervise caregivers in cooking meals/feeding children	- Active feeding - IYCF practices

	- Teach simple nutrition/health/hygiene/caring messages through example and talking	- Identify good/bad practices (IYCF, illness, care, hygiene) - How to give positive support
	Monitor attendance, progress, food contributions	- Understand how to complete basic forms - Reflect on the information and what can be done to improve
Conduct follow-up home visits	Household visits to support caregivers with new behaviours	- Purpose of home visit - Use of Home Visit Observation Checklist form - Problem solving with caregiver
Communication	Methods with caregivers and community members in simple terms	
	Report regularly to village health committee	Ability to communicate programme progress and results

ADP/District-level Staff

Skill	**Supervisor**	**Knowledge required**
Community mobilisation	- Motivational skills - Identify key stakeholders in community - Identify key locations to promote PDH (e.g. church setting, community meeting, communal gardens) - Mobilise a PDH committee (consists of leaders, fathers, grandmothers of community)	- Understand theory of PDH and importance of PDH - Various roles important to success of PDH in community - Who the decision-makers are at household level

Measuring growth	Participate in identifying nutrition status of children to select participant children for PD/ Hearth programme (screening should be done monthly to identify new participants to be included in next round of Hearth)	Motivation/mobilisation of village leaders
	Teach volunteers to interpret growth charts and counsel caregivers	GMP technical ability
		Communication of IYCF practices in simple terms
Situational analysis	- Nutrition situation - Health services - Market survey	- Participatory Rapid Appraisal (PRA) - UNICEF framework of Causes of Malnutrition
	Communicate with MoH, village leaders, health providers, volunteers	Community mobilisation skills
PDI	- Identify PD/NDP/malnourished children - Assist in PDI	- Principles of PDH - Concept of PD
	Train volunteers in PDI	- Adult education principles - Facilitation skills - Participatory assessment skills
	- Lead participants in analysis of PDI information - Develop appropriate key messages and behaviours to promote in each Hearth session	- Breastfeeding - Complementary feeding - Hygiene - Illness prevention and treatment - Early child stimulation - Meal preparation for families - Nutrition and HIV and AIDS
	- Train volunteers in six key Hearth messages	
Menu preparation	- Development of nutrient dense menus-based on PDI - Train volunteers in menu preparation using household measures	- Use of food tables and menu calculation software - Calorie, protein and micronutrient (MN) requirements - Basic nutrition principles to be able to substitute recipes

Hearth sessions	Supervise Hearth sessions	- Assist volunteers in organising set-up of Hearth - Assist in mobilisation of caregivers to attend - Essential Elements of PDH - Use of 'Supervision Checklist
	Train volunteers in helping caregivers prep meals, actively feed, etc.	
	Train volunteers in development and presentation of key messages	Awareness of alternate teaching methods (song, picture, hands-on, example)
	Supervise and motivate volunteers who run Hearth sessions and PDH Committee	
Monitoring	Assure implementation of Hearth protocol (hygiene, snack, cooking, feeding, training)	Use of monitoring sheets to analyse effectiveness of process
	Create monthly plan for implementing Hearth in geographic area	- Budget development - Logframe development - DIP
	Ensure Hearth sessions take place monthly	Use of Hearth monitoring form
	Ensure 12-day, 30-day, 6-month, 12-month and 24-month follow-up conducted	Use of Hearth monitoring form and PD/ Hearth database software
	Ensure 2-week follow-up home visits are being conducted by volunteers after Hearth sessions	Use of Home Visit Observation Checklist forms and track the submission of these forms by
	Motivate village to take responsibility in monitoring growth of children (important for on-going screening of future PD/ Hearth participant children)	- Community mobilisation skills - Communication skills - Community-based M&E techniques
	Aggregate information from all Hearths in area	Reflection and analysis
	Competent in using PDH database software	Familiar with MS Excel and internet
	Analyse information and make appropriate programming decisions	Decision-making/problem-solving skills
Communication	Provide feedback to volunteers on their Hearth sessions, graduation rates, home visits, etc.	Simplify technical findings and present in lay language
	Report progress to supervisor/ ADP manager/community	Written and verbal communication skills
	Communicate to volunteers the next group of identified participant children for PD/Hearth – should identify from monthly GMP results	List of underweight children from most recent monthly GMP results (monthly screening required)

Regional/Provincial Health and Nutrition Coordinator

Skill	**Regional/Provincial Health and Nutrition Coordinators**	**Knowledge required**
Planning	- Analyse nutrition data - Identify geographic priority areas for PDH - Communicate results to national partners/WV leadership/communities/ ADP staff	Causes and consequences of malnutrition measure, calculate and classify malnutrition
	- Network with NGOs, government ministries, universities, international organisations (UNICEF, etc.)	- PDH concepts, principles and practices - Role of diverse entities in PDH implementation
	- Motivate participation of cross sectors specialists to contribute to PDH - Lead multi-sector team in collaborative planning to integrate into PDH	Identification of gaps/key contributing factors and ways to address those.
	Develop/adapt logframe for PDH	
	Develop DIP for PDH	
	Develop budget and workplan	

Monitoring	- Ensure all data is collected (no missing data) and entered into PDH database - Analysis of aggregated data/interpret findings - Make appropriate decisions based on data to strengthen	- Principles of monitoring systems for PDH - Using tracking forms - Competent in PDH Database - # of Hearth sites implemented per village
	- Support and supervision visits to Hearth projects - Mentor ADP/District staff	PDH menu requirements (meets nutrient requirements, low cost, use locally available foods, seasonal calendar considered)
	Develop and implement evaluation plan for PDH	
	- National level reporting (aggregated data) - Communication with partners	
Training	- Develop training materials - Train PDH supervisors - Supervise and support PDH supervisors and support supervisors in training of volunteers	- Adult learning methodology - Ability to teach technical material in actively and in simple language - Facilitation skills

National Health and Nutrition Coordinator

	National Health and Nutrition	**Knowledge/skills required**
Skills	- Adult learning methodology - PDH theory and methodology - Demonstrated ability in training others in PDH, Hearth menu calculation tool/ software and PDH Database - Is deployable	- In the various areas listed below is able to lead others in the processes and/or train others in practical, hands-on ways - Computer processing skills (Competent in Microsoft Excel and Internet use)
Area of expertise		
Basic Public Health Science	- Population health, disease prevalence, prevention, health determinants, promotion, improving health outcomes - Applies epidemiological knowledge, approaches, methodologies - Understands and uses research	- Use of secondary and primary data to identify gaps in nutrition and recommend appropriate interventions - Ability to advise on other relevant health interventions that would support improvement in community nutritional status

Analytical/ Assessment	Defines gaps and top priorities for health in country aligned with WV strategic direction	- Identify situations where PDH methodology would be feasible and beneficial - Advise when PDH would have limited applicability and not be recommended
	Use of quantitative /qualitative data	- Identify areas where nutrition is a problem and PDH could be relevant - Identify contributing factors to low nutritional status that would need to be addressed - Use of data to 'advocate' for PDH programmes - Ability to advise on PDH field research or evaluation
	Selects and defines relevant variables	
	Applies ethical principles to data collection, storage, use and reporting	Ability to set up monitoring systems following WV and PDH standards
	Knowledge of standardised data collection and management process and computer systems	
	Knowledgeable of risks and benefits to communities through assessment and planning	
Programme Planning and Policy Development	- Translates assessment information and data into programmes - Able to assess feasibility, applicability, risk management for WV ADPs - Uses standard techniques in decision-making and planning - Develops PDH programme plans, goals, objectives, expected outcomes, implementation process - Knowledgeable of assumptions that affect PDH	Uses data to mentor staff in improved programming
Leadership	- Creates shared vision and team learning - Manages team information, contracts, external agreements - Manages staff; motivates, conflict resolution, performance monitoring - Identifies factors that may impact programme delivery - Facilitates collaboration with internal and external stakeholders - Represents PDH at internal and external forums - Monitors and maintains ethical and organisational performance standards	- Able to build and lead multi-cultural team around common goals - Able to advocate and collaborate with relevant nutrition and PDH networks

Communication at multi-country/ regional level	- Written and verbal communication of health issues - Facilitates and participates in diverse cultural, educational and professional groups - Solicits input from relevant team members - Advocates for top priority health issues aligned with 7-11 programming - Presents demographic, statistical, scientific and programme information for lay and professional audience	- Able to communicate technical PDH information simply and clearly to non-technical audiences - Ability to communicate with other technical experts in health/nutrition or other relevant disciplines - A learner's attitude

5.2. Budget

While the 'Hearth' sessions are inexpensive to implement, the project requires funds for the early stages of implementation, including trainings and human resource development. Typically, these two areas account for approximately 90 per cent of project costs. A greater economy of scale is seen where the total cost per child per year decreases as more children are included in the project. WV's experience so far shows that the average yearly cost per child decreased from US$17 per child when 750 malnourished children were targeted to US$8 per child when the number of beneficiaries was doubled to approximately 1,400. Some projects, particularly those that integrate food security, may have a higher cost of US$100 per child per year.

In the past, PDH projects have been implemented as specially funded non-sponsorship projects or as components of grant projects. However, programmes are increasingly implementing PDH using only their core budget. It is important to note that the project is designed to include all malnourished children in the community who meet the PDH criteria, not just registered children.

Recommended timeline:

- It takes approximately two years to affect malnutrition levels with the PDH project.
- If there are high numbers of malnourished children and few staff or volunteers for training and implementing the project, PDH will require more than two years. Considerable scaling-up of the model to cover many groups requires a longer project timeline. It is also possible that nutrition will improve, but that only some behaviours will change within the first two years.
- The actual implementation of Hearth sessions to rehabilitate malnourished children is relatively short, generally from one to three months. However, prior to this, initial project implementation and preparation for these sessions requires about six months.
- A simple review may be undertaken within a year of project implementation. This includes measuring weight-for-age of all the children in the community and comparing the per cent malnourished at the beginning of the project with the per cent malnourished at the end of one year. The results will help determine whether PDH should be considered for other groups within the primary focus or programme impact areas. The process from community mobilisation through the Hearth sessions and follow-up visits will take nine months to one year.
- Technical support is helpful in developing a scale-up plan, once the initial Hearth sessions have demonstrated success. In practice, many programmes begin PDH in a limited number of communities and scale-up to other areas over a period of years.

A sample budget table is available below:

PDH Implementation Bud

There are no economies of scale that should be considered.

6. Linkages and integration

6.1. Child focus

Child participation

The project model engages the participation of underweight children primarily 6–36 months and in some countries 6–59 months of age. PDH does not focus on an age group where participation in decision-making should be encouraged. However, PDH involves primary caregivers and key household decision makers in the programme by making it mandatory for primary caregivers to attend 80 per cent of the 10–12 days of Hearth sessions and encourages key household decision makers such as husbands and mother-in-laws to attend the first and last day of Hearth sessions. In this way, they could also witness the changes seen in their children through the PDH programme and continue to support and encourage the primary caregivers to practice the new positive behaviours learnt in the Hearth sessions at home.

Child protection

PDH encourages the prioritisation of children's feeding, water and sanitation, heath-seeking, and caring needs to promote child growth and development, including the protection of children. It facilitates changes in harmful norms, beliefs and values that include those relevant for child protection. For example, PDH programmes share messages on preventing early childhood marriages, supporting both girls' and boys' rights to education and nutritious foods if these are identified as major challenges faced in the community. PDH also encourages active feeding and the importance of both mothers and fathers being involved in playing with children, preventing neglect and other forms of child abuse and encouraging early childhood development. If child abuse is identified as a major contributor to malnutrition, the Child Protection Facilitation Guide, Session 1 and Session 10 could be used to build the capacity of volunteers to recognise signs of abuse and how to respond in cases of abuse.

Child sponsorship

In some countries, a column in the child registration is designated for the input of a child sponsorship number if the PDH participant child is indeed a sponsored child. All underweight children are included in the PDH programme, whether the child is a sponsored child or not.

PDH projects include, but are not limited to, malnourished children who are either registered children or come from families who have registered children. The intervention is aimed at children under 3 years of age who are too young to be registered in some countries. The presence of one malnourished child in a household may signal that nutrition and food security issues are a priority for that family. The criterion for inclusion in the project is simply nutrition level.

PDH provides a response for the referral of registered and non-registered children, 6 to 36 months who are mildly, moderately or severely underweight (WAZ<-1.0).

Monitoring for PDH can be linked with sponsorship monitoring; however, weighing needs to be done by someone who has been trained using standard training protocols, such as the Measuring and Promoting Child Growth tool. Contact with children through PDH activities can be recorded as part of sponsorship monitoring. During follow-up visits with participant families, Hearth volunteers can reinforce messages about child sponsorship as well as key messages from other shared projects.

Regular contacts with children and families during child sponsorship monitoring or group gatherings can be used to reinforce key messages identified in PDH. Child sponsorship can be a platform to raise awareness about childhood nutrition, its importance and how the community can prevent malnutrition in the future. Even if there are no registered children under 5 years of age, treating and preventing malnutrition among a registered child's siblings who are under 2 years of age can create a social safety net for that registered child.

6.2. Development Programme Approach (DPA)

Malnutrition sometimes does not get identified by communities during conversations on child well-being issues because either stunted and underweight children are seen as normal or because malnutrition is not recognised as a causal factor in other child well-being problems. For this reason, it is vital that Development Facilitators (DFs) understand how to identify malnutrition when it is present and are able to stimulate dialogue with community groups about malnutrition. The kind of questions or statements that a DF can raise during a broad community engagement on child well-being issues include (refer to page 12 in *PDH ToF Manual*):

- Ask participants to think of a young child who is not growing well or is always sick. Describe the child you are thinking of. Explain, 'While these signs help, we cannot always tell that a child is not growing well, so we need to measure.'

- Use a healthy leaf or maize plant and compare it to an unhealthy leaf or maize plant to help visualise a well-nourished child vs. a malnourished child. Ask how does the tree or plant access a lot of rain and sunlight compared to a healthy child? The healthy child has access to a lot of rain and sunlight, unlike the dying leaf or maize. The dying plant has no strength and little energy, which is like a malnourished child.
- Why do we care if a child grows well? Review the consequences of malnutrition (page 16 in *PDH ToF Manual*).
- Did you know malnutrition during the first 6 months affects brain development?
- What happens when the next generation of children have under-developed brains, what will happen to this community?
- What causes a child not to grow well? What is the biggest problem in your community? (food/feeding, care, water/hygiene, health-seeking practices)
- What illnesses do children in our community get?
- How can we help children not to get sick? How do we treat children who are sick?

The DF engages the community through such questions and create community awareness around malnutrition and the causes of malnutrition. The DF points out the uniqueness of PDH compared to other traditional nutrition programmes (refer to Table 1) and what PDH entails and emphasises that the solutions to overcome malnutrition exist in their community, without additional external input (e.g. latrines, bole holes, etc.) using existing resources.

Secondary data from government sources such as GMP data, the Demographic Health Survey reports or recent evaluations can show the malnutrition situation in the region, district or community. The Analysis, Design, and Planning Tool (ADAPT) could be used to help inform the selection of this model and to identify the root and underlying causes of malnutrition for the context using the secondary data.

6.3. Faith

Christian faith as described by Jesus in his parables of the Kingdom of God includes caring for the poor and vulnerable in our communities. For PDH, faith is the foundation and motivation of the model rather than something measurable while implementing PDH. PDH is rooted in our Christian identity, including an understanding of community ownership as fundamental for human beings created in the image of God with inherent capacity to solve problems in their contexts with existing resources. It focuses on building household/family resilience as a God-ordained institution where children to flourish and thrive.

PDH targets households with malnourished children, one of the most vulnerable in communities, and cares for them, not by a one-time treatment, but by transforming the practices, attitudes and knowledge of the caregivers of young children and the entire community. The methodology is bottom-up and allows communities to discover that even limited resource households ('the poor') have solutions to prevent malnutrition. PDH embodies the value 'the last will be first' and blesses families with malnourished children with the practices and hope that allow their children to be well-nourished and an opportunity to fulfil their potential.

Food taboos, religious beliefs, and the practice of using witchcraft or traditional healers to treat medical complications or malnutrition in children are all possible contributors to malnutrition in some contexts, as they lead to poor food choices and misdiagnosing and mistreating child illnesses. Through a thorough formative research conducted in the design phase of PDH, such beliefs and health-seeking practices are identified and key messages to address the major challenges are emphasised during the Hearth sessions, encouraging primary caregivers to change their practices. Many times, caregivers are reluctant to change their practices at first, but once they begin to see the positive changes in their children through their behaviour change during the Hearth sessions, it motivates them to sustain the positive behaviour changes at home.

Jesus shows us to address the physical needs of the people while also addressing the spiritual needs. PDH does just that. PDH teaches the community how to meet their children's physical needs using existing resources in the community and local solutions without the dependence on NGOs or external organisations. It encourages the community to find hope in overcoming child malnutrition in their community by taking ownership of the PDH programme as their own. PDH also teaches parents how to show their love to their children and other people as Christ showed his love. This is seen especially during the Hearth session when all participant caregivers contribute food or cooking items to produce a nutritious 'medicine' meal together to rehabilitate their malnourished children. Furthermore, many mothers share how fathers are a lot more involved in child caring and feeding practices after going through PDH because of the realisation of how it contributes to child development. Also, saying 'grace' before Hearth meals are eaten by children is a common practice in many countries. In non-Christian faith-based countries, the story of Jesus' birth during Christmas and Easter is shared during the Hearth session to share the Good News in indirect ways with the community.

Church and/or other faith groups have been used to mobilise the community and to share the key PDH messages with the larger community. They have also been used to encourage the community to take ownership of the

programme so that it can be sustained even after WV leaves the area. Churches have also been used to conduct the Hearth sessions. Faith actors can also be explicitly called out to address spiritual/religious root causes, identify most vulnerable children, promote positive practices, and leverage existing groups within the faith communities for PDH messages (women/family groups).

6.4. Integration and enabling project models

There are many possible points of intersection, collaboration and integration between PDH and other projects.
Health and nutrition projects: PDH is included in the Health and Nutrition ADAPT as one of the possible projects available for adoption by local-level partners. Hearth not only provides a way to rehabilitate malnourished children identified through either growth monitoring promotion or home visits by community health workers, but it also identifies positive IYCF practices, hygiene and other health-promoting behaviours that are culturally specific and appropriate. These health-promoting practices *can* be scaled-up by training community health workers and volunteers to use them while doing home visits or timed and targeted counselling. The six key Hearth messages could be included as part of WV's project model COMM, to ensure all community Health Committees or community health workers are familiar with the key messages and are providing unified messaging to households with children 5 years of age and younger. PDH could use COMM to strengthen existing Health Committees to support PDH programmes or to form Hearth Committees if existing Health Committees are overwhelmed with existing responsibilities.

Integration across sectors: Within WV, the PDH project model is not a stand-alone project. The PDI may identify positive local agricultural, water and sanitation or income generation practices that could contribute to a child's health.

Agriculture and food security: When the PDI indicates that agriculture practices are a key difference between families of well and malnourished children, the PDH project can complement food security and agriculture projects. For example, if the practice of eating caterpillars is found in the PDI, but caterpillars are not easily accessible, then agriculture specialists may help develop projects such as planting more trees in the area that the particular caterpillars feed on for the families with malnourished children. In addition, families with malnourished children should be intentionally linked to agriculture or food security projects to increase their access to a variety of nutritious foods for household consumption. Typically, these projects focus on developing a source of animal-based foods (eggs, chickens, fish and rabbits) and kitchen gardens. The projects might also include methods of food preservation such as solar drying to ensure consistent food supply throughout various seasons.

The integration of PDH with food security projects usually happens in parallel with the Hearth sessions. It is important that a food security specialist is involved in the PDH orientation and training sessions. This will help food security specialists to understand the importance of food security projects for rehabilitating malnourished children. The food security specialist should be involved in the initial PDI. The PDI provides information on what foods families grow or gather that are beneficial and feasible for other families to grow. Careful decisions are made and projects are designed that promote the most contextually appropriate foods for fighting malnutrition. Families learn to produce foods that are promoted in the Hearth sessions, while learning why these foods are important and how to prepare and feed them to their children.

Food security projects should involve fathers, mothers and other caregivers. It is important for women to be involved in decisions related to gardens and small animals. Sometimes caregivers can use the Hearth sessions to explain the challenges they are having with their gardens or small animals. If food security project foods are available, they can be included in Hearth menus. If the food security project foods are not available until after the Hearth sessions, conduct additional Hearth sessions six months to a year after the original Hearth sessions. PDH volunteers hold a session once a month and teach the women how to use the new food security project foods. These sessions are referred to as 'booster sessions.'

Early childhood development (ECD): Culturally-appropriate IYCF and care messages developed by ECD can be incorporated into Hearth sessions. Value is added as these messages are not only discussed but practiced daily during Hearth sessions. Support from the Hearth volunteer during the sessions and during follow-up, increases the possibility that these messages transform behaviour. Furthermore, spiritual nurture of children can also be integrated with the broader ECD messages.

Water and sanitation: In one context where hygiene and latrines were identified in the PDI as a major gap, PDH participants were taught how to construct a temporary latrine at minimal cost. PDH then taught proper hygiene practices and promoted the use of latrines. Families who regularly used the latrine for six months received support to construct a more permanent latrine. This promoted behaviour change in PDH participants, and the PDH project provided endorsement and support for the water and sanitation project.

Gender, Channels of Hope (CoH), Celebrating Families: In several projects, PDH has incorporated gender-related components into key messages. A gender specialist supported the development of messages and methods of

delivery. This has been a bridge to initiatives around family relations, domestic violence, early marriage and the delay of the first pregnancy. CoH and Gender project models could be used to address gender norms. The Celebrating Families project model can be considered when talking about family relational initiatives.

Collaboration with MoH: PDH volunteers reinforce the continued use of local government health services through referrals and counselling. Before entering the Hearth session, families are required to take their children to the health facility for deworming, micronutrient supplementation and immunisations. Volunteers and project staff can also advocate to improve the services provided by health centres, such as growth monitoring.

Examples of successful implementing of PDH with other sectors can be found on the WV nutrition website: http://www.wvi.org/nutrition/positive-deviancehearth.

7. Field Guides

Resource name	Description	Link
PDH Trainer of Facilitators Manual	Used to train PDH Coordinators/Facilitators. Includes all monitoring forms along with all theoretical material on PDH and field preparation instructions.	http://wvi.org/publication/pd-hearth-training-facilitators-manual
PDH Master Trainer Manual	Used to train PDH Master Trainers, focusing on facilitation skills. Includes materials on skills development and the technical components.	http://wvi.org/nutrition/publication/pdhearth-master-trainers-manual
PDH Volunteer Training Manual	Used to train PDH volunteers. Job aids and monitoring formats are also available with the manual at the link provided.	http://wvi.org/nutrition/publication/positive-deviance-hearth-volunteer-training-manual
PDH Implementation Quality Assurance Tool	Used to assess PDH programme quality – assessed using essential elements.	http://www.wvi.org/nutrition/publication/iqa-positive-deviance-hearth
PDH Budget Template	Contains all activities and supplies required for PDH implementation.	 PDH Implementation Buc
PDH Database	Used to monitor PDH programmes across countries implementing PDH.	 WV PDHearth Database 2016 v3 14
PDH Menu Calculator	Used to design Hearth menus.	 WV NCOE Food Composition Table (
Measuring and Promoting Child Growth Tool	Used for anthropometry trainings	http://wvi.org/nutrition/publication/measuring-and-promoting-child-growth
PDH Action Plan Template	Used by ADP, provincial and national level staff planning to implement PDH.	 Action Plan (Template).xlsx

For more information on the PD/Hearth Project Model, go to: http://www.wvi.org/nutrition/positive-deviancehearth. Further inquiries and technical support could be provided by WV's TSO – Health and Nutrition Team. Please contact Diane_baik@worldvision.ca and/or Miriam_yiannakis@worldvision.ca.