



MINISTRY OF HEALTH

Training of Facilitators for Positive Deviance Hearth Manual



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Adapted from World Vision International Positive Deviance Hearth (PD Hearth) Manual, 3rd Edition, 2021 developed by Diane Baik and Naomi Klaas and World Vision International.

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Globally, one in 10 people is hungry or undernourished, and one in three people is overweight or obese (Global Nutrition Report, 2022). Governments have a fundamental responsibility and authority to safeguard their populations' nutrition, resilience and well-being through wide ranging enabling, policy and impact actions.

The government of Kenya is committed to the achievement of Global, Regional and National targets for nutrition including the World Health Assembly (WHA) targets and Sustainable Development Goals 2 (By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age and address the nutritional needs of adolescent girls, pregnant and lactating women, and older persons) and SDG 3 (ensure good health and well-being for all at all ages).

The Kenyan Constitution in Article 43(a, c) also provides for citizens' rights to good health and nutrition which has a vital role in economic growth, poverty reduction and realization of Kenya's Vision 2030. The achievement of a long-term development agenda for Kenya, anchored in Vision 2030, calls for a healthy and productive labour force. The Ministry of Health recognizes the immediate and long-term social and economic repercussions of malnutrition amongst infants and young children.

According to Kenya Demographic Health Survey (KDHS) 2022, Kenya has made significant progress in reducing malnutrition. The prevalence of stunting among children under 5 years reduced from 26% to 18% between 2014 and 2022 while underweight persons reduced from 11% to 10%. The prevalence of wasting minimally increased from 4% to 5% while overweight prevalence reduced from 4.1% to 3%.

The Positive Deviance Hearth (PD Hearth) is an internationally proven community-based model for rehabilitating malnourished children in their own homes using locally available food commodities. The approach is in tandem with the Kenya Nutrition Action Plan (KNAP 2018-2022) Key Result Area Six which elaborates on the strategies for strengthening the prevention and Integration of Management of Acute Malnutrition (IMAM) and Key Result Area One on the promotion of optimal nutrition care practices and support for children 6 –59 months.

Adapting the model to rehabilitate underweight children will actualize the Integrated Management of Acute Malnutrition (IMAM) Guideline, Second Edition, 2021. In addition, the PD hearth approach actualizes the Kenya Agri-nutrition Implementation Strategy (2020-2025) that promotes the consumption of affordable, safe, diverse and nutritious foods.

The Ministry of Health will provide the necessary leadership and coordination in liaison with County governments in providing effective coordination to protect, facilitate and encourage optimal infant and young child nutrition at the community level. I urge all stakeholders to play their role in actualizing the implementation of this manual.



Dr. Patrick Amoth, EBS
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Preface

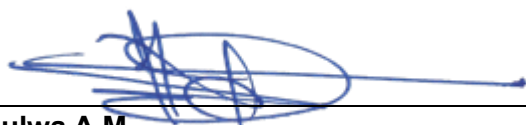
The immediate causes of acute malnutrition are inadequate dietary intake and/or disease. Children with acute malnutrition are at increased risk of death when compared to well-nourished children. Integrated Management of Acute Malnutrition (IMAM) interventions should ensure strong linkages with programs that focus on preventive and promotive services like supplementation, breastfeeding, complementary feeding, hygiene, and food safety, among others. Coverage of IMAM services, especially in arid and semi-arid counties, has remained relatively low mainly due to distance from health facilities, program challenges like erratic supplies, and inadequate staff who can offer the services, poor health-seeking Behaviours by the community, among other bottlenecks. Positive Deviance Hearth (PD Hearth) is one of the innovative approaches to improve coverage of rehabilitating children with malnutrition in line with the Kenya Nutrition Action Plan key result number six.

The development of this manual is based on the need to create more sustainable solutions to address malnutrition. The Ministry of Health recognizes the need to develop competent Trainers of Facilitators (ToFs) for Positive Deviance/Hearth (PD Hearth) programs implemented in Kenya. This manual presents curriculum and exercises based on field experience in many countries representing all regions of the World. Adult learning methodologies with practical examples, exercises, role plays and field visits to reinforce the principles of strong PD Hearth programs.

The development of this manual has been a consultative process which began with a PD Hearth training for a team of MoH staff from the Division of Nutrition (10) and Counties (12), Ministry of Agriculture (1) and partners (8) (ACF, Concern Worldwide, Community Connect for Communities WFP, UNICEF and Amref. The staff later reviewed the PD Hearth manual developed by World Vision International and identified areas for review and contextualization to ensure its in line with MoH systems. This was followed by a series of workshops to review the manual. The process culminated by convening a stakeholders' workshop to validate the revised manuals and identify areas requiring further improvement. The input of the stakeholders was then incorporated into the document.

We trust this manual will enable trainers to increase the understanding, skill, and competency of government and partners' staff in order to rehabilitate malnourished children and prevent future malnutrition through the PD Hearth program.

For questions, comments, or feedback contact the Ministry of Health Division of Nutrition, at headnutrition.moh@health.go.ke



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List of Acronyms

ANC	Ante-Natal Care
CHA	Community Health Assistant
CHC	Community Health Committee
CHMT	County Health Management Team
CHP	Community Health Promoters
CHU	Community Health Unit
DHS	Demographic & Health Survey
M&E	Monitoring & Evaluation
ECCD	Early Childhood Care & Development
ED	Edible Portion
FGD	Focus Group Discussion
GMP	Growth Monitoring Promotion
HIV	Human Immunodeficiency Virus
IDP	Internally Displaced Person
IMAM	Integrated Management of Acute Malnutrition
IU	International Units
IYCF	Infant & Young Child Feeding
KNAP	Kenya Nutrition Action Plan
KAP	Knowledge, Attitude & Practice
WHZ	Weight-for Height Z-score
WAZ	Weight for Age Z score
WFP	World Food Programme
WV	World Vision

Community Health Promoter: Is a member of the community selected to serve in a community health unit. The CHPs recruitment, training and roles is as prescribed in the Kenya Community Health Policy (2020 – 2030)

Community Health Committee (CHC) Refers to a committee that is charged with the coordination and management of a community health unit and whose membership, representation and tasks is as prescribed in the Kenya Community Health Policy (2020– 2030)

GLOW: Body protective foods

GO: Energy-giving foods

GROW: Body-building foods

Graduation: Children who have improved nutrition status to normal or at mild after 3 months in PDH

Hearth: A place within a house where food is cooked and served

Hearth menu: This is a meal composed of locally available, accessible, and affordable foods that are nutrient-dense

Hearth sessions: These refer to sessions where mothers with malnourished children meet with the guidance of Community Health Promoters to share knowledge, learn positive practices, cook hearth meals and give the food to their children

Negative Deviants (ND): These are malnourished children from rich households

Non-Positive Deviants (NPD or non-PD): These are malnourished children from poor households and healthy children from rich households

PD practices: These are practices, actions, and Behaviours that minimize disease, promote health and wellbeing of individuals

Positive Deviance: Different in a positive way from the usual practice Positive Deviants (PD): These are Healthy children from poor households Stunting: Is Height/length-for-age less than - 2 SD from reference Underweight: Weight-for-age less than - 2 SD from reference

Wasting: Weight-for-height/length less than - 2 SD from reference or 'yellow or red' MUAC

Introduction to the Facilitation Manual for Training of Facilitators (TOFs) for Positive Deviance (PD)/Hearth

General PD Hearth Overview

PD Hearth is an internationally proven community-based model for rehabilitating malnourished children in their own homes. The approach targets at risk, moderately and severely underweight children aged 6 and 35 months and depending on resources availed can be from birth to 5 years of age, children experience very rapid growth and development. Children who are malnourished during this stage of life will not develop to their full potential. Early malnutrition affects a child's physical, mental, and emotional capacity throughout their entire life.

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 approach. Then volunteers share this knowledge and teach these positive practices to caregivers with malnourished children in practical lessons called '**Hearth** sessions' where caregivers make nutrient dense meals made from locally available, accessible, and affordable food. All the ingredients are brought to the Hearth session by the participant caregivers who practice cooking the foods at the Hearth session. Hearth sessions lasts for 12 days, followed by a 2-week follow-up conducted by the volunteers through home visits. CHPs follow up children at home on Day 30, Day 60, Day 90, Day 180 and after one year and take the weight and MUAC of the child to monitor their progress. 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 practice the positive Behaviours at home.

PD Hearth empowers communities to take responsibility for addressing the causes of malnutrition by helping to identify local solutions to overcome malnutrition.

The PD Hearth model has three main goals:

1. **Quickly rehabilitate malnourished children**
2. **Enable families to sustain the rehabilitation of these children.**
3. **Prevent future malnutrition among all children in the community.**

About the Curriculum

The training manual provides the framework and materials for a 9-day face-to-face course. It covers all components of the PD Hearth Programme. A group size of a maximum 30 participants is recommended in order to maximize interaction and feedback. The participants should be drawn from a mix of nutrition officers, child health focal persons, nurses, health records information officers, Community Health Assistants, Public Health Officers, Health Promotion Officers, Clinical officers or other health workers who will directly be involved in the implementation of PDH.

Some sessions are held in a classroom setting; others are based in the field, collecting, and using field information. Although not absolutely necessary, access to computers during the sessions on calculating nutritional status and the menu calculation exercise could be helpful. Access to a community where there are malnourished children and where community members are willing to work with training participants is necessary. This community should be within close proximity to the training site (no more than one hour away).

Course objectives

By the end of the course, participants will be able to:

1. Distinguish where PD Hearth is an appropriate intervention.
2. Articulate how PD Hearth can and should be integrated with other programmes/sectors.
3. Practice the steps in implementing PD Hearth
4. Use essential elements and principles of PD Hearth to guide project decisions and strengthen implementation.
5. Use monitoring tools to ensure quality implementation at the community level
6. Complete a training curriculum adapted to their country context (National ToF Curriculum and Volunteer Training Curriculum)
7. Practice facilitation techniques for PD Hearth volunteer training.

The PD Hearth Training is aimed at building cadres of staff within the Government and Partners who are qualified and certified as Trainers of Facilitators (TOFs). The level of staff targeted is not limited to the National Office, County level, or Regional Office, but is instead targeted to staff whose job description requires them to train others in this model.

The ToFs will extensively cover PD Hearth Methodology, the use of PD Hearth tools and the menu design. Participants are required to complete assignments during the training and may be expected to facilitate volunteer training sessions during the event that will be graded both by peers and expert trainers in order to provide feedback on how to improve on facilitation skills. To maintain quality in PD Hearth training and implementation, there are certain qualifications that need to be met before a participant is approved to become Facilitator or Co-facilitator. These qualifications include:

- a. Successfully completing a PD Hearth Training of Facilitators (ToFs).
- b. Demonstrating clear understanding of PD Hearth methodology and key principles.

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- c. Successfully conducting PD Hearth volunteer training under the supervision of a Master Trainer.

At the end of the face-to-face event, each participant will have a one-on-one discussion with the Master Trainer to receive feedback on their performance, and to discuss follow up and requirements in order to complete the certification process.

Full Certification as a Facilitator or Co-facilitator in PD Hearth will be earned upon:

1. Satisfactory completion of ToFs with a grade of 75% or higher (Facilitator certification with a final grade of 85% or higher; Co-facilitator certification with a final grade of 75-84%)
2. Demonstrate clear understanding of PD Hearth Methodology and key principles.
3. Satisfactory co-facilitation of a PD Hearth volunteer training, supervised by a Master Trainer

Flow of Training:

Please note: It is recommended that all PD Hearth trainings are facilitated by at least 2 Master Trainers.

National PD Hearth Training of Facilitators Workshop (National and County Level):

Purpose: To train the national and sub-national level staff in PD Hearth Methodology and implementation of the model

Facilitator: Co-facilitated by at least two Master Trainers

Participants: National and County level staff responsible for implementing PD Hearth programme. Participants must complete pre-workshop readings.

Duration: 9 days. The training must be close to a community planning to implement PD Hearth or a community with PD Hearth programming already. There must be fieldwork incorporated into the training.

Curriculum: ToF Curriculum and CORE PD Hearth manual and orientation of PD Hearth Volunteer Training manual

Outcome: PD Hearth ToFs each participant will be evaluated as either a PD Hearth Facilitator (able to independently lead PD Hearth implementation training) or Co-facilitator (able to co-lead implementation training with a Facilitator)

PD Hearth Competencies

Community Health Volunteer

Skill	Activities	Knowledge required
Community mobilization	<ul style="list-style-type: none"> Identify key stakeholders in community. Identify key locations to promote PD Hearth (e.g., church setting, community meeting) Mobilize a PD Hearth Committee (Consists of leaders, fathers, grandmothers of community) 	<ul style="list-style-type: none"> Motivational skills Understand Theory of PD Hearth and importance of PD Hearth Various roles important to success of PD Hearth in community Who the decision-makers are at household level
Measuring growth	<ul style="list-style-type: none"> Weigh children 	<ul style="list-style-type: none"> Importance of proper weighing technique Ability to weigh properly
	<ul style="list-style-type: none"> Plot weights on growth chart 	<ul style="list-style-type: none"> Plot and interpret growth lines
	<ul style="list-style-type: none"> Counsel caregivers 	<ul style="list-style-type: none"> IYCF practices Communicate effectively with caregivers
Active participation in PDI	<ul style="list-style-type: none"> Observation skills 	<ul style="list-style-type: none"> Factors that contribute to good child growth
	<ul style="list-style-type: none"> Semi-structured interview skills 	<ul style="list-style-type: none"> Asking questions
	<ul style="list-style-type: none"> Guided identification of good/bad Behaviours 	<ul style="list-style-type: none"> Reflection of information gathered and how it contributes to child growth
Menu Preparation	<ul style="list-style-type: none"> Making menus for Hearth 	<ul style="list-style-type: none"> Basic food groups 'Special' (PD) foods Preparation of recipes Calculating portion size for children
Conduct Hearth sessions	<ul style="list-style-type: none"> Motivate/organize children/caregivers to attend Hearth 	<ul style="list-style-type: none"> Goals of Programme

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Skill	Activities	Knowledge required
		<ul style="list-style-type: none"> • What a Hearth is • How to set up a Hearth • Role of each person
	<ul style="list-style-type: none"> • Supervise caregivers in cooking meals / feeding children 	<ul style="list-style-type: none"> • Active feeding • IYCF practices
	<ul style="list-style-type: none"> • Teach simple nutrition/health/hygiene/caring messages through example and talking 	<ul style="list-style-type: none"> • Identify good/bad practices (IYCF, illness, care, hygiene) • How to give positive support
	<ul style="list-style-type: none"> • Monitor attendance, progress, food contributions 	<ul style="list-style-type: none"> • Understand how to complete basic forms. • Reflect on the information and what can be done to improve sessions
Conduct follow up home visits	<ul style="list-style-type: none"> • Household visits to support caregivers with new Behaviours 	<ul style="list-style-type: none"> • Purpose of home visit • Use of Home Visit Observation • Checklist form • Problem solving with caregiver
Communication	<ul style="list-style-type: none"> • Communicate concepts and methods with caregivers and community members in simple terms. • Report regularly to CHC 	<ul style="list-style-type: none"> • Ability to communicate programme progress and results orally

Sub County level staff

Skill	Skills Required	Knowledge required
Community mobilization	<ul style="list-style-type: none"> • Motivational skills • Identify key stakeholders in community. • Identify key locations to promote PD Hearth (e.g., church setting, community meeting, communal gardens) • Mobilize a PD Hearth Committee (Consists of leaders, fathers, grandmothers of community) 	<ul style="list-style-type: none"> • Understand Theory of PD Hearth and importance of PD Hearth • Various roles important to success of PD Hearth in community • Who the decision-makers are at household level
Measuring growth	<ul style="list-style-type: none"> • 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 session) • Teach the CHPs to interpret growth charts and counsel caregivers 	<ul style="list-style-type: none"> • Motivation/mobilization of village leaders • GMP technical ability • Communication of IYCF practices in simple terms
Situational Analysis	<ul style="list-style-type: none"> • Nutrition situation • Health services • Market survey • Communicate with MoH, village leaders, health providers, volunteers 	<ul style="list-style-type: none"> • Participatory Rapid Appraisal (PRA) • UNICEF framework of Causes of Malnutrition • Community mobilization skills
PDI	<ul style="list-style-type: none"> • Identify PD/NPD/malnourished children. • Assist in PDI • Train volunteers in PDI • Lead participants in analysis of PDI information • Develop appropriate key messages and Behaviours to promote in each Hearth session. 	<ul style="list-style-type: none"> • Principles of PDH • Concept of PD • Adult education principles • Facilitation skills • Participatory assessment skills • Breastfeeding • Complementary Feeding • Hygiene

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Skill	Skills Required	Knowledge required
	<ul style="list-style-type: none"> • Train volunteers in 6 key Hearth messages 	<ul style="list-style-type: none"> • Illness Prevention and treatment • Early child stimulation • Meal preparation for families • Nutrition and HIV/AIDS
Menu Preparation	<ul style="list-style-type: none"> • Development of nutrient dense menus based on PDI. • Train volunteers in menu preparation using household measures 	<ul style="list-style-type: none"> • Use of food tables and menu calculation software • Calorie, protein and Micronutrient requirements • Basic nutrition principles to be able to substitute recipes
Hearth sessions	<ul style="list-style-type: none"> • Supervise Hearth sessions. • Train volunteers in helping caregivers prep meals, actively feed, etc. • Train volunteers in development and presentation of key messages • Supervise and motivate volunteers who run Hearth sessions and PD Hearth committee 	<ul style="list-style-type: none"> • Assist volunteers in organizing setup of Hearth. • Assist in mobilization of caregivers to attend. • Essential Elements of PD Hearth • Use of 'Supervision Checklist form' • Awareness of alternate teaching methods (song, picture, hands-on, example)
Monitoring	<ul style="list-style-type: none"> • Assure implementation of Hearth protocol (hygiene, snack, cooking, feeding, training) 	<ul style="list-style-type: none"> • Use of monitoring sheets to analyze effectiveness of process
	<ul style="list-style-type: none"> • Create monthly plan for implementing Hearth in geographic area 	<ul style="list-style-type: none"> • Budget development • Log frame development
	<ul style="list-style-type: none"> • Ensure Hearth sessions take place monthly 	<ul style="list-style-type: none"> • Use of Hearth monitoring form
	<ul style="list-style-type: none"> • Ensure Day 12, 30, 60, 90, 6 months, 12 months, and 24-month follow-up conducted 	<ul style="list-style-type: none"> • Use of Hearth monitoring form and PD Hearth database software
	<ul style="list-style-type: none"> • Ensure 2-week follow-up home visits are being conducted by volunteers after Hearth sessions 	<ul style="list-style-type: none"> • Use of Home-visit Observation Checklist forms and track the submission of these forms by volunteers

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Skill	Skills Required	Knowledge required
	<ul style="list-style-type: none"> Motivate village to take responsibility in monitoring growth of children (important for on-going screening of future PD Hearth participant children) 	<ul style="list-style-type: none"> Community mobilization skills Communication skills Community-based M&E techniques
	<ul style="list-style-type: none"> Aggregate information from all Hearths in area 	<ul style="list-style-type: none"> Reflection and analysis
	<ul style="list-style-type: none"> Competent in using PD Hearth database software 	<ul style="list-style-type: none"> Familiar with MS Excel and internet
	<ul style="list-style-type: none"> Analyze information and make appropriate programming decisions 	<ul style="list-style-type: none"> Decision making/problem solving skills
Communication	<ul style="list-style-type: none"> Provide feedback to volunteers on their Hearth sessions, graduation rates, home visits, etc. 	<ul style="list-style-type: none"> Simplify technical findings and present in lay language
	<ul style="list-style-type: none"> Report progress to supervisors and community leaders 	<ul style="list-style-type: none"> Written and verbal communication skills
	<ul style="list-style-type: none"> Communicate to volunteers the next group of identified participant children for PD Hearth Should identify from monthly GMP results 	<ul style="list-style-type: none"> List of underweight children from most recent monthly GMP results (monthly screening required)

County Level Nutrition Coordinators

Skill	Activities	Knowledge required
Planning	<ul style="list-style-type: none"> Analyze nutrition data. Identify geographic priority areas for PDH. Communicate results to National/ County/Partners/ Communities 	<ul style="list-style-type: none"> Causes and consequences of malnutrition measure, calculate and classify malnutrition
	<ul style="list-style-type: none"> Network with NGOs, government ministries, universities, international organizations 	<ul style="list-style-type: none"> PDH concepts, principles and practices Role of diverse entities in PDH implementation
	<ul style="list-style-type: none"> Motivate participation of cross sectors specialists to contribute to PDH. Lead multi-sector team in collaborative planning to integrate into PDH programming 	<ul style="list-style-type: none"> Identification of gaps/key contributing factors and ways to address those.
	<ul style="list-style-type: none"> Develop/adapt log frame for PDH 	
	<ul style="list-style-type: none"> Develop implementation plan for PDH 	
	<ul style="list-style-type: none"> Develop budget and workplan 	
Monitoring	<ul style="list-style-type: none"> 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 Programme. Support and supervision visits to Hearth projects Develop and implement evaluation plan for PDH National level reporting (aggregated data) Communication with partners 	<ul style="list-style-type: none"> Principles of monitoring systems for PDH Using tracking forms Competent in PDH Database # Of Hearth sites implemented per village PDH menu requirements (meets nutrient requirements, low cost, use locally available foods, seasonal calendar considered)

Introduction

Skill	Activities	Knowledge required
Training	<ul style="list-style-type: none"> • Develop training materials. • Train PD Hearth Supervisors • Supervise and support PD Hearth Supervisors and support Supervisors in training of promoters 	<ul style="list-style-type: none"> • Adult learning methodology • Ability to teach technical material in simple language. • Facilitation skills

National Nutrition Coordinators

Area of Expertise	Skills	Knowledge/ skills required
	<ul style="list-style-type: none"> • Adult learning methodology • PDH theory and methodology • Demonstrated ability in training others in PDH, Hearth menu calculation tool/software and PDH Database Is deployable 	<ul style="list-style-type: none"> • Able to lead others in the processes and/or train others in practical, hands-on ways. • Computer skills (Competent in MS Excel and Internet use)
Basic Public Health Science	<ul style="list-style-type: none"> • Population health, disease prevalence, prevention, health determinants, promotion, improving health outcomes. • Applies epidemiological knowledge, approaches, methodologies. • Understands and uses research methodologies and scientific evidence for health problems 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Defines gaps and top priorities for health in country aligned with strategic direction 	<ul style="list-style-type: none"> • Identify situations where PDH methodology would be feasible and beneficial. • Advise when PDH would have limited applicability and not be recommended
	<ul style="list-style-type: none"> • Use of quantitative /qualitative data 	<ul style="list-style-type: none"> • 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.

Area of Expertise	Skills	Knowledge/ skills required
		<ul style="list-style-type: none"> • Use of data to 'advocate' for PDH programmes • Ability to advise on PDH field research or evaluation
	<ul style="list-style-type: none"> • Selects and defines relevant variables 	
	<ul style="list-style-type: none"> • Applies ethical principles to data collection, storage, use and reporting 	<ul style="list-style-type: none"> • Ability to set up monitoring systems following MoH and PDH standards
	<ul style="list-style-type: none"> • Knowledge of standardized data collection and management process and computer systems. 	
	<ul style="list-style-type: none"> • Knowledgeable of risks and benefits to communities through assessment and planning 	
<p>Programme Planning and Policy Development</p>	<ul style="list-style-type: none"> • Translates assessment information and data into programmes. • Able to assess feasibility, applicability, risk management for projects. • Uses standard techniques in decision making and planning. • Develops PDH Programme plans, goals, objectives, expected outcomes, implementation process. • Knowledgeable of assumptions that affect PDH 	<ul style="list-style-type: none"> • Uses data to mentor staff in improved programming
<p>Leadership</p>	<ul style="list-style-type: none"> • Creates shared vision and team learning. • Manages team information, contracts, external agreements. • Manages staff, motivates, conflict resolution, performance monitoring. 	<ul style="list-style-type: none"> • Able to build and lead multi-cultural team around common goals. • Able to advocate and collaborate with relevant nutrition and PDH networks

Area of Expertise	Skills	Knowledge/ skills required
	<ul style="list-style-type: none"> • 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 organizational performance standards 	
Communication at multi-country/ regional level	<ul style="list-style-type: none"> • Written and verbal communication of health issues • Facilitates and participates in diverse cultural, educational and professional. • Solicits input from relevant team members. • Presents demographic, statistical, scientific and Programme information for lay and professional audience 	<ul style="list-style-type: none"> • Able to communicate technical PDH information simply and clearly to non-technical audiences. • A learner's attitude

Field Preparation Required for Situation Analysis.

The health care workers will need to prepare communities for this activity. Ideally, these will be new communities starting PD Hearth for the first time. Select participants from one village for every workshop. With existing community health volunteers and community leaders, conduct a wealth ranking exercise.

Using the wealth ranking information, conduct a nutrition baseline survey of at least 20 children aged of 6 and 59 months, selected randomly, and classify the children who were weighed according to their family's wealth ranking. This information must be ready before the start of the training. The health care workers need to organize with the community for a field visit on the third day of the training. Health care workers can organize a meeting with community leaders prior to the focus group discussion with caregivers whereby participants are informed of visiting the selected facilities.

- **Wealth Ranking:** Identify 5 or 7 community members (diverse group of men and women inclusive of two caregivers with children with disability) prior to the field work. The community members identified should be conversant with the determinants of wealth in the community.
- **Initial Nutrition Assessment:** Mobilize the required personnel (e.g., nutritionists, CHPs, etc.) to help weigh children on the day of assessment and is required that the CHPs to have communicated to the mothers/care givers to bring Mother Child handbook during the assessment. Weigh all children 0 – 59 months of age in the community (you could mobilize the caregivers to one site/location or to several decentralized locations in the community to increase coverage and provide any other services on a specific day and time).
- **Community/Social Mapping:** Identify 4 to 5 community leaders (men and women) and 1 - 2 CHPs to be involved in the exercise.
- **Seasonal Calendar/Transect Walk:** It is good to have 1 or 2 CHPs who could help to navigate in the village/community.
- **Market Survey:** This is conducted by the team of health care workers with the assistance of 1-2 CHPs and 1 community member. Find out when the main market day is and keep in mind when planning the agenda.

PD Hearth Training Checklist

PD Hearth Training Checklist

The PDH training takes a 9-day face-to-face course. A group size of a maximum 30 participants with 4 facilitators (2 Master trainers and 2 TOFs) is recommended in order to maximize interaction and feedback.

The participants should be drawn from a mix of nutrition officers, child health focal persons, nurses, health records information officers, Community Health Assistants, Public Health Officers, Health Promotion Officers, Clinical officers, or other health workers who will directly be involved in the implementation of PDH. Access to a community where there are malnourished children and where community members are willing to work with training participants is necessary. This community should be within proximity to the training site (no more than one hour away). Pre-planning meeting to take place one day prior to the training day.

S/No	DESCRIPTION OF ITEMS	AMOUNTS	COMMENTS
1	TOF training manuals	1 per participant	
2	Community Health Promoter Manual	1 per participant	
3	TOF handouts	1 per participant	
4	CHP handouts	1 per participant	
5	Pre-test / Post test	1 per participant	
6	Training Agenda	1 per participant	
7	Stationery (Pens, Pencils, Rubber, Sharpener)	1 per participant	
8	Simple Clip boards	1 per participant	
9	Flip Charts	10	
10	Markers (assorted colors)	10 packets	
11	Masking Tape/sticky stuff (sticky tack)	10	
12	Digital Kitchen weighing Scale with batteries	4	
13	Colored manila paper	5	
14	Pair of scissors	1	
15	Post-it Notes	4	Variety of colors (medium/bigger size)
16	Stapler and staples	1	

PD Hearth Training Checklist

S/No	DESCRIPTION OF ITEMS	AMOUNTS	COMMENTS
17	Name tags	1 per participant	The type that can be worn around neck
18	Printer and printing papers	1	Please ensure there is sufficient toner for the printer (ink)
19	Projector and screen for projector	1	
20	Household measuring tools (e.g., the cups regularly used in the households of the communities we will be visiting, other measuring tools that mothers use to cook food in the communities	Several measuring tools used at home	
21	Aprons /Head gear/Lesso's	Each participant	
22	<p>Day 1- Purchase of different food type Including healthy and unhealthy snacks, banana, oranges, pineapple, mango, milk, groundnut, and unhealthy Snacks (soda, sweets, candy, crisps, junk food). Different type of foods</p> <p>Go: rice, maize, green bananas, potatoes, maize flour, wheat flour.</p> <p>Glow: carrots, pumpkin, tomatoes, dark-green leafy vegetables, mangos, oranges, Avocadoes, watermelon, Pineapple, spinach, cabbages, and pawpaw.</p> <p>Grow: eggs, milk, fish, chicken, green grams, meat, groundnuts, beans, peas, nuts,</p> <p>Kitchen equipment's: cooking pots, Knives, plates, wooden spoon, mortar and pestle, Grater, chopping board, 3 cooking Pots, Dish washing sponge and soap, Serviettes</p> <p>Source fuel</p> <p>Three large stones</p>		
23	Ensure adequate Anthropometric tools (weighing scales & MUAC tapes)	10 weighing scales with	

PD Hearth Training Checklist

S/No	DESCRIPTION OF ITEMS	AMOUNTS	COMMENTS
		batteries/ Charger MUAC -1 per participant	
24	<p>Logistics for the field practice</p> <ul style="list-style-type: none"> • Prior to the training Identify 2 villages with high caseload of malnutrition to be visited and plan for logistics (Transport, snacks/ refreshments for participants) • The villages where implementation will take place. • Inform the link facilities to prepare for in reach services during the nutrition screening. • Community Mobilization of Key gatekeepers including community authorities • Identify and Inform community guides. 		

Session Objectives

By the end of the session participants will

1. Have reviewed the training goals and desired outcomes.
2. Have been introduced to the hosting agency and facilitation team.
3. Be able to summarize participant expectations and workshop norms.
4. Be able to evaluate their learning needs as individuals and as a group in key objectives of PD Hearth.

Preparation

- Prepare a flip chart with overall training goal and objectives as shown on Handout 1.1.
- Prepare two copies of Flip Chart 1, the 'Target Evaluation' diagram. One copy is used now, and one at the end of the course

Materials

- Objectives (Handout 1.1)
- Agenda (Handout 1.2)
- Blank sheets of flip-chart paper
- 8 dot stickers for each participant

STEPS

5 Min

1. The organization hosting the event welcomes participants and introduces the lead facilitator as well as special guests attending the opening session.

10 Min

2. Cover basic information such as the location of bathrooms, timing of breaks, etc. With the group, develop ground rules (promptness, cell-phone etiquette, computer use ,etc.). Use a flip chart that will be displayed during the workshop. Encourage full participation in all discussions and small-group work.

5 Min

3. Read the overall goal of the training and the training objectives. Based on these, ask what the participants expect. List responses on a separate sheet of flip-chart paper.

5 Min

4. Distribute the training agenda and briefly review the planned content. Note that the activities have been planned to encourage maximum discussion and 'hands-on' work by participants. Participants will spend time revising a training curriculum to make it suitable for their own context.

10 Min

5. Introduce all facilitators and describe their involvement with PD Hearth to date.

Have all the participants briefly introduce themselves.

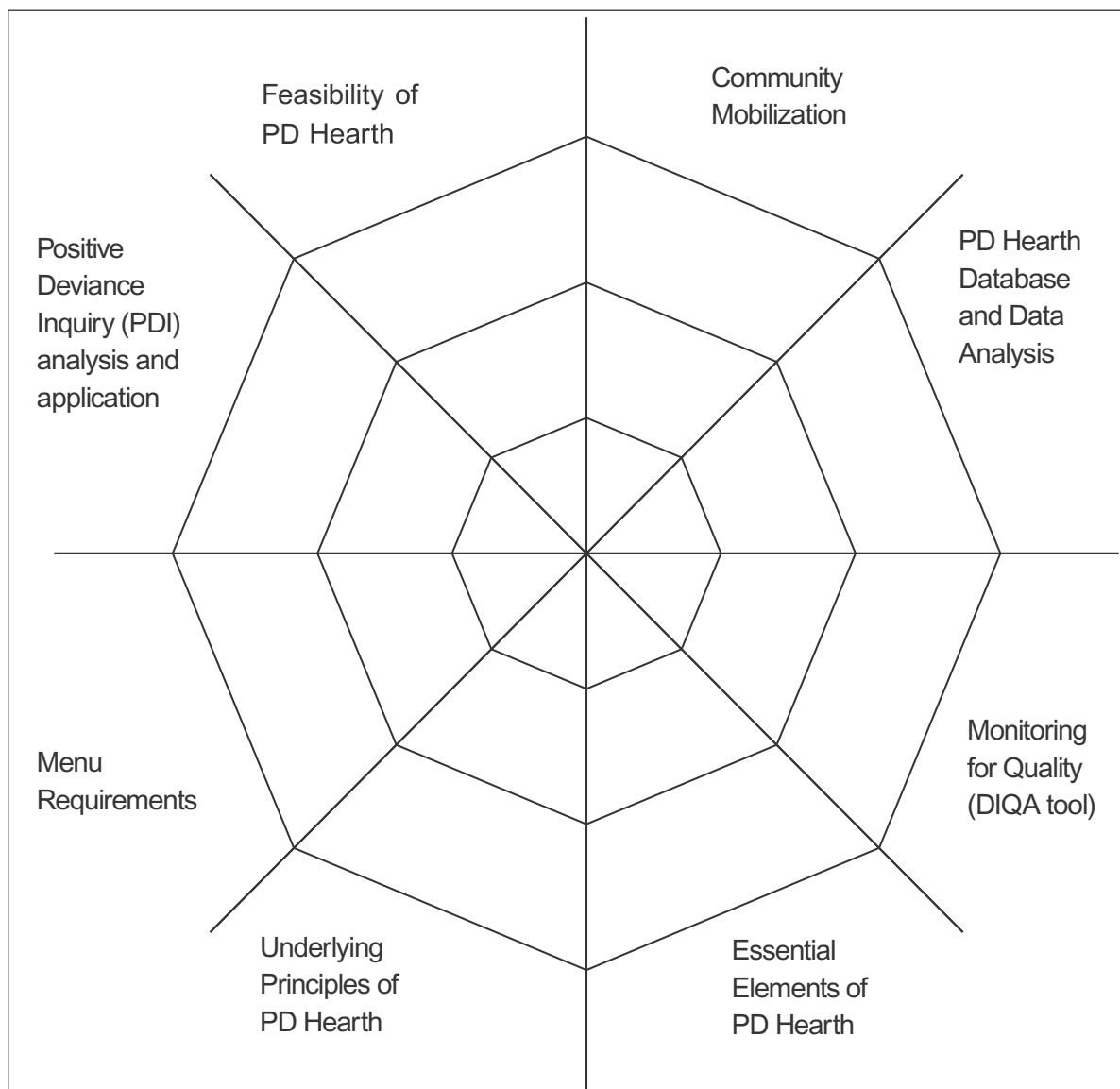
10 Min

6. Review the group's expectations from step 3 and ask if anyone has questions on plans for the workshop.

15 Min

7. Complete the first stage of the 'Target Evaluation Dart Board' described below.

Handout 1.1: Target Evaluation Dart Board



- Give each participant eight stickers.
- Ask participants to think about their understanding and skill in each of the eight areas listed on the 'dartboard'. The more competent they feel in each area, the closer to the centre of the target they should place a sticker. If they feel less confident or knowledgeable about an area, they place their sticker closer to the outer edge.
- When all participants have placed their stickers, discuss together areas where the group has strengths and areas that group members hope to strengthen in this course.
- Save this sheet for comparison at the end of the course.

Handout 1.2: Objectives of PDH Training of Facilitators**Goal**

MOH staff and partners develop knowledge, skill and competencies in PD Hearth to:

- Train others
- Provide technical support
- Monitor implementation.

Training objectives

By the end of the workshop, participants will be able to:

1. Distinguish where PD Hearth is an appropriate intervention
2. Articulate how PD Hearth can and should be integrated with other programmes/sectors
3. Practice the steps in implementing PD Hearth
4. Use essential elements and principles of PD Hearth to guide project decisions and strengthen implementation
5. Use monitoring tools to ensure quality implementation at the community level

Agenda for PD Hearth Training of Facilitators

Handout 1.3: Agenda for PDH Training of Facilitators

Day and Date	Session	Activities	Time
Day 1:			
1		Devotion	15 min
	1	Opening remarks Introductions (Ice breaker) Expectations and Objectives, Parking Lot Workshop Norms (Form Review Volunteer Groups) Target Evaluation Brief Overview of training (Evaluation method and go through overview/ field visits) Admin issues & logistics	90 min
	2	Pre-test	35 min
	3	What is Malnutrition? – Activity (3 types of malnutrition: underweight, stunting, wasting; Malnutrition cycle; Local terminologies)	95 min
		National prevalence (5 min) & county context	15 min
	4	What is Good Nutrition?	30 min
	5	Overview of PD Hearth Goals/objectives; Definitions	45 min
		Key steps of PD Hearth (20 min)	20 min
	6	(STEP 1) Determining the Feasibility of PD Hearth Approach for the Target Community – Case study using local communities (Identify existing other sectors in the sub-county, county)	45 min
	Daily Summary and Evaluation	10 min	
Day 2: “Practicing to go out to the field” – Situation Analysis of the community			
2		Devotion	30 min
	6	Review of Day 1 and Agenda for Day 2	30 min
	7	(STEP 2) Community: Mobilization strategies for various PD Hearth stakeholders (70min) 1. Identifying stakeholders involved in child care and nutrition within the community (Venn Diagram); Outlining the Existing Local Health System Structure; Community Resources/Staffing	305 min

Agenda for PD Hearth Training of Facilitators

Day and Date	Session	Activities	Time
		Required for PD Hearth implementation (Local NGOs) (50 mins) Creating Community Ownership 1. Preliminary steps: Meeting with leaders after receiving Invitation (Practice through role play) (20 mins) 2. (OPTIONAL) Increasing Community Involvement to include Children with Disability into PD Hearth (130 min) 3. (SITE 2) Identifying and Selecting Volunteers - Mobilization strategies for various PD Hearth stakeholders (35 min)	
	8	Disability inclusion into PD Hearth	10 min
	9	(STEP 3) Situation Analysis with the community members 1. Wealth Ranking 2. Measuring nutritional status (underweight & wasting) of all children in the village (weighing scales – salter scales and MUAC) 3. Market Survey & Seasonal Calendar	220 min
	10	Situational Analysis - Nutritional Assessment 4. weighing technique A. Weighing station B. MUAC station C. Recording station 5. calculating Nutritional status of children 6. Disability screening questions during nutritional assessment 7. Counseling caregivers on children's weight 8. Handout 10.1 case study of Kangakipur community's initial nutrition assessment - Handout 10.2 - Nutritional Assessment - Handout 10.3 - Child disability screening question for PD Hearth - Handout 10.4 - Initial assessment worksheet	105 min
	11	Seasonal Calendar, Market survey 1. Seasonal calendar	105 min
	12	Preparing for situational analysis field visit	

Agenda for PD Hearth Training of Facilitators

Day and Date	Session	Activities	Time
Day 3: Field Visit (Situational Analysis)			
3	13	Field Visit to Conduct Situational Analysis Travel to field (activities can run simultaneously) <ol style="list-style-type: none"> 1. Introduction to leaders and volunteers (30 mins) 2. Social Mapping (40 mins) and Transect Walk (45 mins) 3. Wealth ranking with community members including volunteers (40mins) 4. Weigh children (Plot children on giant growth chart if wanted) (45 mins to 180 mins – depends on how many children are weighed) 5. Seasonal Calendar (45 mins) & Market Survey (60 mins) Travel back to hotel 	4.0 hours to 6.5 hours plus travel time (depends on how much time is spent weighing children and travel time to/ from the field)
Day 4:			
		Devotion	30 min
	14	Review of Day 3 Field Visit and Agenda for Day 4 – Reflection field work (what worked, what needs improvement, etc.)	45 min
4	15	Analyzing Situational Analysis Data Brief orientation on Database Excel spreadsheets situation analysis Compile, summarize and document findings from field visit (Flip chart, Excel templates) – Enter nutrition status/wealth ranking into Present findings: Nutritional profile of children – Initial assessment. Data interpretation Documentation of assets, current common practices & challenges	180 min
		How to conduct community feedback – Assign someone to share findings tomorrow. Have person practice for preparation of field visit in front of participants and receive feedback	30 min

Agenda for PD Hearth Training of Facilitators

Day and Date	Session	Activities	Time
	16	(STEP 4) Identifying Positive Deviants – Selection criteria for PDs; Identification of NPDs, PDs, and ND households (Use findings from field visit to identify NPD, PDs, ND households)	60 min
	17	(STEP 4) Preparing for the Positive Deviance Inquiry (PDI) <ol style="list-style-type: none"> 1. Review and adapt generic tools 2. Do's & Don'ts for home visits 3. Further practice with tools (Role plays) 4. Logistics for home visits 	105 min
Day 5: Field Visit (PDI)			
5	18	Field Visit to Conduct PDI Travel to field <ol style="list-style-type: none"> 1. Feedback to community on nutrition status findings (60 min) 2. PDIs in the field for AP village (At least 4 PD HH & 2-4 NPD HHs & 2 ND per village) - home visits Travel back to training site	4.5 to 6.5 hours plus travel
One-day Break: Compile PDI data and post charts including results from situation analysis (Compile in Excel Templates) and begin working on Action Plans			
Day 6:			
		Devotion	30 min
	19	Review of Day 5 Field Visit and Agenda for Day 6 – Reflection field work (what worked, what needs improvement, etc.)	45 min
6	20	(STEP 4) PDI Interpretation and Feedback: Determining Positive Deviance and Identifying 6 Key Hearth Messages <ol style="list-style-type: none"> 1. Presentation of PDI findings – Identify PD Behaviours & Non-PD Behaviours 2. Develop 6 key Hearth messages based on PDI Findings & Quotes from villagers 	170 min
		Community Feedback Meetings – Preparation to share PDI Findings	60 min

Agenda for PD Hearth Training of Facilitators

Day and Date	Session	Activities	Time
		<ol style="list-style-type: none"> 1. Exploration of ways to share PDI findings (e.g. skits, cultural events) 2. Role plays 3. Identify possible gaps in understanding context and have them clarified through FGDs after feedback meeting 4. Practice FGD and developing some questions with target group, adolescents (sibling care), and/or disability organization members/ advocates (disability inclusion) 	
	22	(STEP 5) Designing Hearth Sessions	80 min
		Daily Summary and Evaluation	10 min
Day 7:			
		Devotion	30 min
		Reflection of Day 6	30 min
	23	(STEP 5) Menu Design and Cooking <ol style="list-style-type: none"> 1. Use food composition tables 2. Menu to meet energy, protein, iron, Vitamin C, A & Zn requirements 3. Convert recipes from grams to home measures 4. Menu Calculation Tool Orientation (~30min) Cooking practical – at training site Menu preparation, testing and selection of hearth menus PD Hearth+ and Integration (STEP 4) PDI Interpretation and Feedback: Determining Positive Deviance and Identifying 6 Key Hearth Messages Presentation of menus (60 min)	390 min
Day 8:			
8		Devotion	30 min
	24	Menu Calculation Assessment	60 min
	25	Essential Elements of PD Hearth	55 min
	26	Setting up Hearth Sessions:	
	27	<ol style="list-style-type: none"> 1. PD Hearth participant selection, number of children per site 	100 min

Agenda for PD Hearth Training of Facilitators

Day and Date	Session	Activities	Time
		2. (STEP 6) Conducting the Hearth Session (40 min) 3. (STEP 7) Supporting New Behaviours through Reflection and Home Visits (60 min)	
	28	(STEP 8) Admission, Graduation, Repeating as Needed (75 min) (STEP 9) Expanding PD Hearth (10 min) (Total 85 min) (STEP 8) Monitoring and Evaluation (Monitoring tools) (105 min) 1. Hearth rotation 2. Home visit protocols and Follow-up: HH follow-up visits 3. Referral to Health Centre 4. Overview of PD Hearth Excel Database and Data Analysis (30 min)	
Day 9:			
		Devotions	30 min
		Review of Day 8 – Go through outstanding Parking Lot Topics	30 min
9	30	Training Promoters – review monitoring tools for volunteers and importance of community monitoring - roles and responsibilities of CHP	60 min
	31	Post-test	35 min
	32	PD Hearth+ and Integration	60 min
		Factors for the Success of PD Hearth	30 min
	33	PD Hearth Action Plans	45 min
	34	Final Evaluation and Closing	40 min
		Target Evaluation, Workshop Evaluation	30 min
		Certificate Presentation & Closing Remarks	40 min

35 MIN

Materials

- PDH Pre-test (Provided in the MS Word document)

1. Distribute Handout 2.1: Pre-test

2. Have the participants complete it and hand it in.

3. Facilitators mark the tests during the break. The marked pre-Tests will be returned with the post-test results on the last day.

Session Objectives

By the end of the session participants should be able

- To learn how malnourished children look like
- To learn causes of malnutrition
- To understand effects of malnutrition

Materials

- Two inflatable balls, one perfectly round and the other deflated (Or find a healthy branch of leaves and a dying branch of leaves)
- Flip-chart paper and markers
- Clean water and soap to wash hands

STEPS

15 Min

1. How does a malnourished child look like?

Ask the participants to think of a young child who is not growing well. What shows that the child is not well? Ask several participants to describe the child they are thinking of (Restless, sad, irritable, sickly, no interest in playing, withdrawn, thin arms and legs, may appear normal but be much older than the child looks



Figure 3.1



Figure 3.2

The illustrations show different forms of malnutrition. The two images in figure 3.1 show two children of the same age (2 years and 3 months). The child on the right is stunted. Child stunting is very common but often goes unrecognized. It is more common than other forms of malnutrition, such as being underweight (low weight for age) or wasting (low weight for height). The 3 images in Figure 3.2 shows wasting. A child with wasting has lost fat and muscle, the child weighs less than other children of the same height. A wasted child has a low Mid Upper-Arm Circumference and may have visible signs of wasting on the ribs and wasting on the buttocks.

What is Malnutrition?



Figure 3.3 is an illustration that shows a growth curve of an underweight child.

Explain: 'While these signs help, we can't always tell that a child is not growing well, so we need to measure. We will learn how to measure weight and mid-upper arm circumference (MUAC) to tell if a child is growing well.'

Forms of Undernutrition

1. Underweight (Weight-for-age less than - 2 SD from reference)

Underweight identifies a child who weighs less than a healthy, well-nourished child of the same age. This may be because the child has not grown normally in height, weight, or both, or because he or she has lost weight. **However, an underweight child is not necessarily wasted (i.e., have lost a significant amount of weight in a short period of time to the extent of apparent thinness) and her/his poor nutritional status may not be as visible as wasting because it is not severe.** Measuring the rate at which a child increases in weight is a very good way to monitor an individual child's growth.

The advantage of underweight is that it reflects both past and present undernutrition in a population; the disadvantage is that it is unable to distinguish between the two. Therefore, if a population has a high rate of underweight, we do not know if the reason is a recent lack of food or illness in the population or long-term undernutrition. Underweight is also a good indicator for monitoring data. If underweight is used to target children who need IYCN intervention, you could prevent further stunting in the population and also wasting.

2. Stunting (Height/length-for-age less than - 2 SD from reference)

Stunting identifies a child who is shorter than expected for a healthy, well-nourished child of the same age. If a child is undernourished, his/her growth in height slows down. A child who is undernourished for a long time is shorter than he/she should be. We refer to this as 'chronic' or long-term undernutrition. **However, a stunted child is not necessarily wasted because a child that has been undernourished for a long period, may not have lost significant weight in a short amount of time.** Thus, the child can be stunted, but not necessarily wasted. Stunting may be less visible than wasting or 'thinness' especially when the whole community has been affected by long-

term undernutrition. In such cases, shortness in height in children may have become a new 'norm' (i.e., many children are shorter than they should be and have not achieved normal heights) and may not be readily perceived as a critical problem.

Note:

Measuring the rate at which children increase in height is not a good way to monitor individual children's growth. However, stunting is useful when we want to:

- **Assess the nutritional status of a population**, for example, when we survey a community. Children's heights are an indicator of chronic malnutrition in the community and tell us if that community has been undernourished in the past or continues to be undernourished. This helps us to find which areas are most undernourished.
- **Measure changes in the nutritional situation of a community**. Height for age measurement of the children tells us whether, over a period of time, the nutrition situation is improving or getting worse. This is useful for our Programme managers and planners who have to decide how to use funds and other resources, and for people who evaluate the effects of development projects.

Therefore, stunting is most useful for assessing overall community nutrition status and measuring long-term changes. Also, stunting does not vary by season over the year.

3. Wasting (Weight-for-height/length less than - 2 SD from reference or 'yellow or red' MUAC)

Wasting identifies a child that is thinner than expected for a healthy, well-nourished child of the same height. This child has lost a significant amount of weight in a short period of time due to poor food security and nutrition and/or illness. **This means a wasted child will also be underweight, that is, they weigh less than a healthy, well-nourished child of the same age. Wasting reflects recent, short-term (acute) malnutrition or illness.** It is a sign that a child is extremely undernourished and will die within several days to several hours if not addressed. A severely wasted child must be referred to a health centre or hospital, but if the child is moderately wasted the parents can improve the child's nutrition at home and the child can recover from wasting. Wasting is the most severe form of undernutrition out of the three nutrition indicators. MUAC measurements can also be used to enable health and nutrition workers to quickly identify a severely acutely malnourished child. **It is useful for screening or assessing the nutritional status of individual children 6 - 59 months of age as well as for assessing the nutritional situation of a community in an emergency situation.** The proportion of wasted children in an area may vary by seasons, due to annual periods of food insecurity or seasonal illness. Thus, wasting is appropriate for examining short-term effects such as seasonal changes in food supply or short-term nutritional stress brought on by illness. Wasting is addressed through treatment and preventive nutrition activities.

What is Malnutrition?

Triggers for Action for Three Forms of Malnutrition

% Of children 0-59 months moderately and severely undernourished.

	Prevalence thresholds					
	Acceptable		Attention required		Critical	
Type of malnutrition	Very low	Low	Medium	High	High	Very high
Underweight		<10	10 - 19		20 - 29	>30
Stunting	<2.5	2.5 - <10	10 - <20	20-< 30		≥30
Wasting	<2.5	2.5 - <5	5 - <10		10 - <15	≥15
Overweight	<2.5	2.5 - <5	5 - <10		10 - <15	≥15

Source: WHO. Global database on child growth and malnutrition.

(<http://www.who.int/nutgrowthdb/en/>).

In summary, when children do not receive good nutrition (i.e., a variety of foods in adequate amounts) and/or have an underlying illness, they will start to lose weight and can become underweight. If this continues for a longer period of time, children's growth in height will slow down and they will not be able to reach their normal heights. So, these children will be shorter than their same-age peers, referred to as stunting. Children who lose a significant amount of weight in a short period of time may be identified as wasted. Wasting is the most severe form of undernutrition among the three indicators as severely acute malnourished (or severely wasted) children (identified by red MUAC or WHZ <-3) can die quickly if not treated soon.

15 Min

2. Why is malnutrition a problem?

If you have inflatable balls:

Use the two inflatable balls to demonstrate how a well-nourished child has a healthy growing pattern compared to a malnourished child. Ask two participants to take turns bouncing the balls on the floor. Other participants should observe which ball bounces higher. Ask two other participants to draw on a flip chart the height and pattern of the bounce of each inflatable ball. Why does the perfect ball bounce higher?

Discuss the exercise:

How does the perfect inflated ball compare to a healthy child? The healthy child has more regular and more 'well-rounded' growth and shows more energy.

A malnourished child is like a deflated ball. This child's growth is not regular and he or she has very little energy.

Why do we care if a child grows well? (Consequences of malnutrition)

If you have a healthy and unhealthy branch of leaves:

Use the healthy and unhealthy branches of leaves to demonstrate how a well-nourished child has a healthy growing pattern compared to a malnourished child. Ask one participant to draw a tree that has access to a lot of rain and sunlight. Ask another participant to draw a tree that does not receive rain and only receives sunlight.

Discuss the exercise:

How does a tree with access to a lot of rain and sunlight compare to a healthy child? The healthy child has more regular growth and is “greener”. A malnourished child is like an unhealthy branch. The leaves have no strength and little energy, like a malnourished child.

Why do we care if a child grows well? (Review the consequences of malnutrition)

Consequences of malnutrition:

The consequences of malnutrition are life-threatening. Malnourished children do not have much energy, are not very active, may cry often or seem very sleepy. They are much more likely to be ill with infections such as diarrhoea, pneumonia, tuberculosis and malaria. When a child is malnourished, infection or illness is more likely to become serious or even cause death.

Small and sickly children are more likely to be enrolled in school late – or never – and they tend to stay in school less time. These children struggle to learn and often do not do well at school. This lack of healthy growing, both physically and mentally, will affect them throughout their lives.

As these malnourished children become adolescents, they may not have the knowledge and skill they need to become independent adults. Over their lifetime they will not be able to do as much work and will earn less than their peers who were well-nourished as children. They will be less able to support their own children when they become parents. Girls will have difficulty with pregnancy or have small babies.

While all stages of a child’s growth are important, the most critical time is the first five years of life, especially the first 1000 days, that is, the period between conception and a child’s second year of life. Thus, children between 6–59 months who are malnourished come to the Hearth for rehabilitation. Babies younger than six months need exclusive breastfeeding for healthy growth so are not included in Hearth.

What is Malnutrition?

15 Min

3. What causes a child not to grow well? 15 min

Tell the following story about Juma. (Adapt the story to the community names.) Juma is 15 months old. He is very small and very thin. Juma has an older brother, Fadhili, who is 5 years old, and a sister, Sarah, who is 3. Sarah was born with a low birth weight. Another sister was born very small and died soon after birth. Juma's mother, Eva, is 27 years old. She is pregnant again. She breastfed all her babies, and as the grandmother told her, she also gives them tea and thin porridge. Eva works hard on a farm three miles from her home for a small wage. She finds the work very tiring, especially when she is pregnant. On the way back to the house she stops at the river to get a bucket of water. Once back at her house, she is too tired to do anything but cook the family's meal. Fadhili takes care of all the children while Eva is in the field. He tries hard to keep them clean and happy, but often Juma has diarrhoea and a runny nose. They usually have tea for breakfast.

At midday, they eat whatever might be left over from the day before, but often there is nothing. In the evening the family eats maize or cassava and some green vegetables. They cannot afford meat or even beans.

Brainstorm using the following questions:

- Who were the people in the story? What happened in the story? What was the problem? Why is Juma too thin?

Some of the reasons will not be clear in the story, but participants should think of possible causes for the problem. Have them call out reasons. You might need to ask them 'why?' to help them think more deeply. (Juma doesn't eat enough, too many children, the mother is gone all day, the father is not there, not enough money, diarrhoea, sickly, unclean water, worm infestation, no shoes, grandmother tries to help but the tea and thin porridge are not good foods for babies)

- Which is the biggest problem? Why? Does it happen in your community?

What are some reasons Juma is not growing well?

Ask participants to give reasons, and ask them why each might be a problem.

'Probe further'

And why is that? And why?' to help them think of underlying causes of malnutrition. Have them write each reason on a sticky note and post it under the appropriate label on the wall. Move this part along quickly. Summarize the discussion by saying that there are many reasons that children do not grow well. These can include behaviour related to food, care, hygiene, and health.

15 Mins

4. Nutritional status is also affected by illness

Explain that the body needs food to fight infection, but illness makes the child not want to eat. When the child eats less, the illness lasts longer or gets worse and can even lead to death.

Children who are sick also will not grow well. It is important to help children not to become sick or get better quickly.

**What illnesses do children in our community get?**

(Diarrhoea, colds, cough, fever, malaria, tuberculosis, pneumonia)

How can we help children not get sick?

Immunization and Vitamin A supplementation– When do children need to be immunized and supplemented?

(Refer to the Ministry of Health immunization schedule)

Deworming – Why is deworming important?

(A child may not feel like eating, the body will not be able to use the food the child does eat, more loss of nutrients from the gut)

When do they need to be dewormed?

(Refer to the Integrated Vitamin A Supplementation and Deworming Guideline for Children Aged 6-59 Months in Kenya)

Note: Vitamin A supplements (VAS) given to all children from 6-59 months at 6 months intervals (100,000 IU for children 6-11 months and 200,000 IU for children 12-59 months. Deworming should be provided for children above 2 years at intervals of 6 months and integrated with vitamin A.

Vitamin A supplement – Why is this important?

(Helps the child see better, prevents blindness, helps fight infection and disease, prevents deaths)

When do children need a Vitamin A supplement? (Every six months, usually given at a Health Post) How do we treat children who are sick? (Continue to breast feed and give food and liquids during illness, go to the health post if the child is not getting better)

What do we do for a child with diarrhoea?

What is Malnutrition?

(Frequent breastfeeding and giving other foods and liquids; give oral rehydration solution + zinc)

Review the method for mixing oral rehydration solution.

Before children enter the Hearth sessions, they should have completed their immunizations, received Vitamin A supplements, and been dewormed. This will give each child the best chance to recuperate from malnutrition. CHPs will need to talk with the caregivers about this, and either send them or go with them to the health facility to make sure each child has received all of these interventions.

30 Min

5. Discuss the reasons for hand washing together.

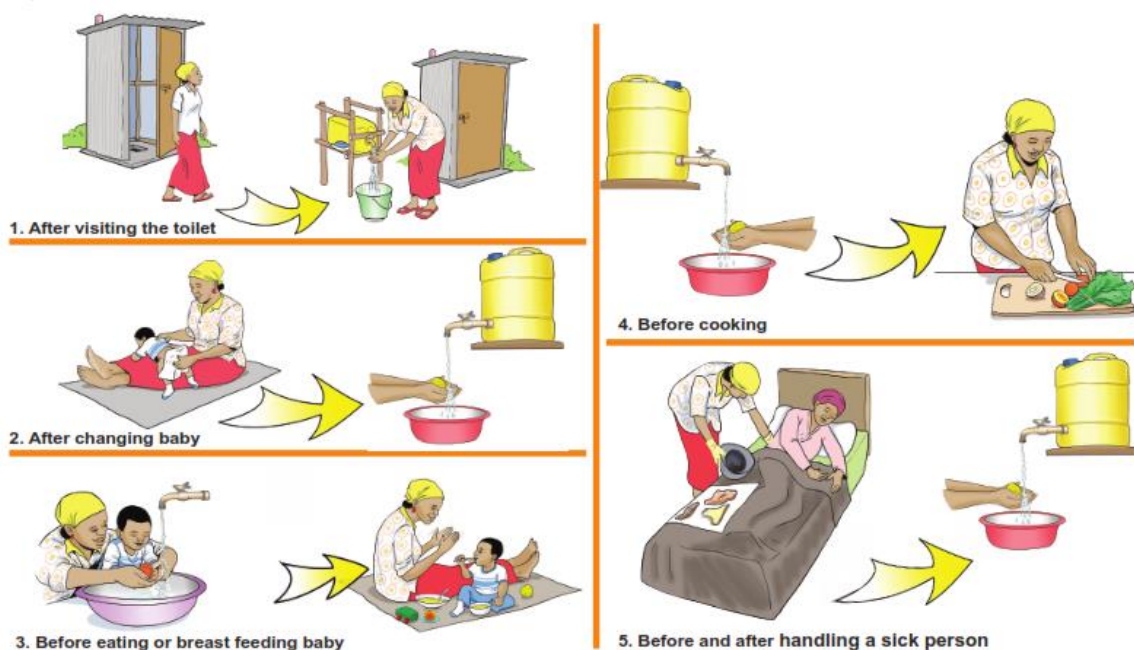


Figure 3.4

How do we wash hands? (Soap and water, rub well, rinse)

Why is it important to wash hands? (To keep germs from spreading, getting into our food, mouths, making us sick)

When do we need to wash our hands? (Before preparing food, before eating, after using the latrine, after changing a diaper, after helping a child use the toilet, after helping a sick child)

The revised UNICEF conceptual framework (Figure 3.5) has outlined the determinants of malnutrition. It uses a positive narrative about what contributes to good nutrition in children and women, providing conceptual clarity about the enabling, underlying, and immediate determinants of adequate nutrition; their vertical and horizontal interconnectedness; and the positive survival, growth, development, performance and economic outcomes resulting from improved nutrition. It highlights the role of diets and care as immediate determinants of maternal and child nutrition. Good diets are driven by adequate food and feeding. Good care is driven by adequate services and practices. Diets and care influence each other. The co-occurrence of good diets and good care leads to adequate nutrition for children and women across the life course. From the Juma case study, briefly review what factors come under each level of determinants of malnutrition. Post the cards with these headings to the wall with space between each heading for participants to add sticky notes.

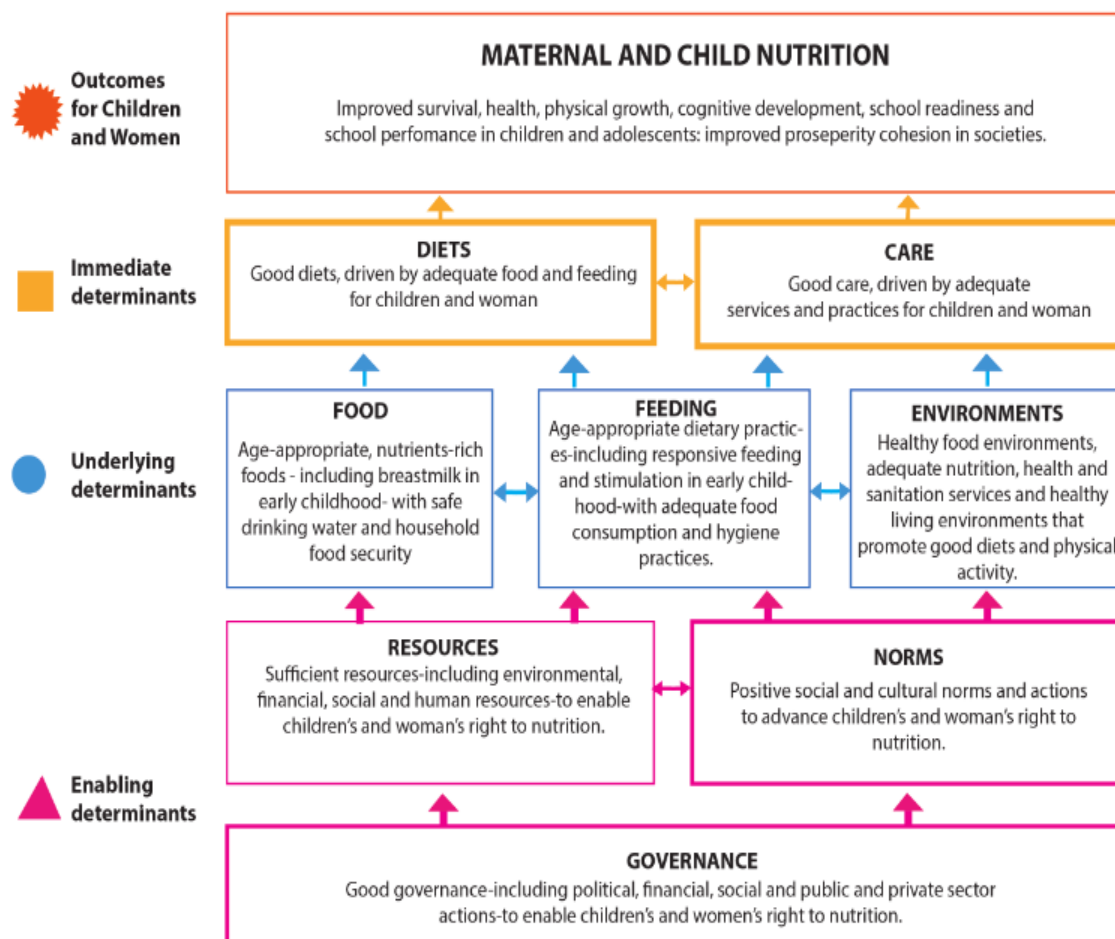


Figure 3.5

UNICEF conceptual framework on the determinants of maternal and child nutrition, 2020. A framework for prevention of malnutrition in all its forms

What is Malnutrition?

The PD HEARTH approach emphasizes on four components of child care:

1. **Feeding practices**
2. **Caring practices** (affection/attention), including psycho-social and family-child interaction/stimulation)
3. **Hygiene practices**
4. **Healthcare practices** (including preventive health practices, home management of illness, and health-seeking).

Other causes of malnutrition depend on the cultural and local context and may include low birth weight, gender bias, and limited access to water, among others. Summarize the session, emphasizing that the PD Hearth approach seeks sustainable behavior change, at the individual and family level as well as at the community level, in order to achieve the three goals of PD Hearth (to rehabilitate malnourished children quickly, to sustain rehabilitation, and to prevent future malnutrition)

Session Objectives**By the end of the session participants will**

- To define what is good nutrition

Materials

- A variety of foods available in the community set on a table. Make sure there are eggs, animal and plant protein sources, dairy and dairy products, fruit, vegetables, nuts, grains, grain products and other staple foods. Use examples of foods that were found to be locally available and affordable in the community.
- Assorted cooking pots
- Cooking oil
- Three large stones, each with a large label: GO, GROW, GLOW
- A variety of healthy and unhealthy snacks
- Hand-washing facilities (basin, water, soap)

STEPS**5 Min****Explain**

1. To grow well, children need to have healthy foods and to be free from illness. Children need adequate, safe, and a variety of foods. We will look at what types of food children need to eat to prevent and to treat illnesses.'

What happens if we have fewer than three stones? (Take out a stone to demonstrate.) To make sure our cooking pot does not spill we need to place it on three stones.

10 Min

2. Have participants call out what types of food they eat in their community.
 - What is the main staple food they eat? (Rice, maize, millet)
 - What are other foods they eat? (Any foods they list)
 - Why do we need to eat different types of food?
 - (They taste good, help us not to get sick, not get hungry, they help children grow).

What is Good Nutrition?

DAY 1

10 Min

- Set up a cooking pot that rests on three large stones, with the names on the stones turned to the inside. Discuss this cooking method.

Use the cooking pot and stones to explain.

If we take away one stone, the pot will fall over. For us to be healthy and not 'fall', we need to embrace food diversity. We are going to call each stone a different name: **GO**, **GROW**, and **GLOW**. Food diversity will lead to achieving the **GO**, **GROW** and **GLOW**.

What foods give us GO? That is energy to work, walk and play (Grains, grain products and other starchy foods.)



Note: Grains, grain products, and other starchy foods only include grains harvested mature and dried. Therefore, green maize does not fall in this food group

Fats and oils are to make foods more energy dense as well as essential for the absorption of some vitamins such as Vitamin A, D, E, K

Can our pot balance on one stone? (No)

What happens to it? (Falls over, puts out the fire, spills the food) We need all three stones to keep the pot balanced.

Another stone is called **GROW**. What do you think **GROW** do? (Help our bodies grow and develop well, build muscles and nerves and perform its functions properly). These foods often come from animals and also plants.

Which foods on the table are **GROW** foods? (Eggs, milk, fish, chicken, meat, groundnuts, beans, peas, nuts, seeds)



Note:

Legumes nuts and seeds: include legumes harvested mature and dried. Coconut does not fall in the category of nuts: if consumed immature it is categorized in the "other fruits", It can also be used as coconut milk seasoning, or fat if processed dairy, dairy products, do not include butter and ghee

30 Min

Can our pot stand on two stones? (No)

We need another stone. This one is called **GLOW** foods. What do you think **GLOW?** foods do? (Protect our bodies from illness, make our hair, eyes see well, and skin glow).



They are often fruits and vegetables. Which foods on the table are GLOW foods?' (Carrots, pumpkin, tomatoes, dark-green leafy vegetables, pawpaw, mangoes). These are Vitamin A rich fruits and vegetables identified by orange, yellow, and green colours and other fruits and vegetables rich in Vitamin C.

Note:

Vitamin A rich fruits and vegetables, Orange-fleshed sweet potatoes are in the GLOW category, while white-fleshed sweet potato are categorized under grains and grain products and other starchy foods

Foods can also be fortified with vitamins and minerals at the factory or at home level. In Kenya, flours, table salt, fats & oils are fortified at the factory level).

Most of the complementary foods provided to children aged 6-23 months do not provide enough micronutrients to meet their nutrient needs, therefore, point-of-use (home level) fortification with Multiple Micronutrient Powders (MNPs) is a strategy to improve the nutrient content of complementary foods by compensating for the lack of nutrient diversity. Multiple Micronutrient Powders can be added to food prepared at home to improve the nutritional quality of the diet by providing 15 essential micronutrients to food for children 6 -23 months of age. Each child is given one sachet (1g) to be used every third day hence 10 sachets per month.

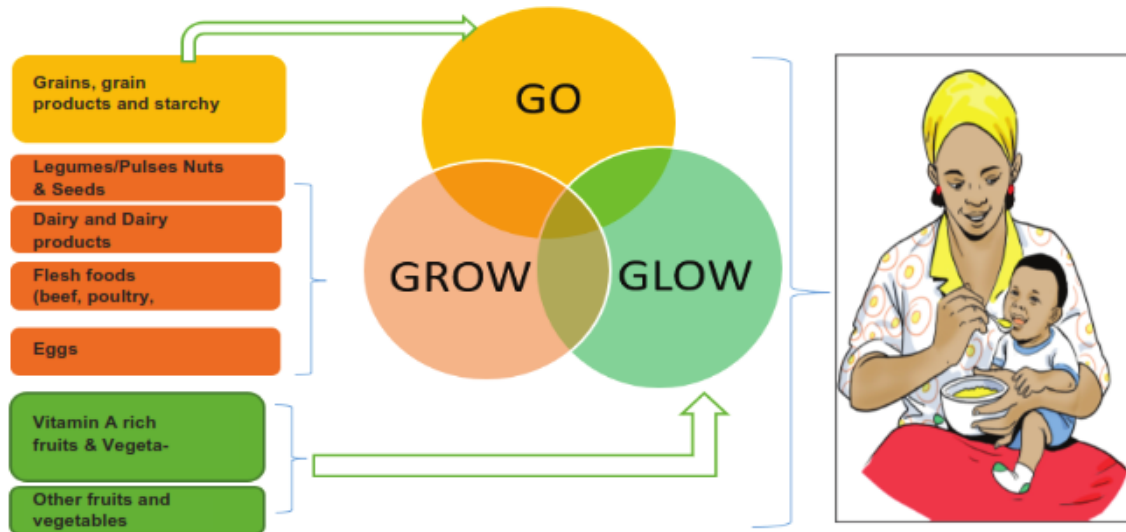
Have each participant pick different types of food from the table. Make sure all the foods are picked. Now have the participants place the foods they picked by the proper stone.

When all the foods are placed, ask if all the foods are in the right places. Gently make any corrections.

Discuss how most people eat a low-cost staple food that forms the main part of the meal and provides energy. In many homes, not much else is eaten. But to be healthy more than just this main food must be eaten. It is very important to also eat other foods groups so as to achieve food diversity.

What is Good Nutrition?

Recommended food groups for children



Discuss one food not included which is very important for infants and young children:



What is it? (breastmilk)

Why is breast milk important?

(It contains exactly what a baby needs to be healthy and grow. For six months a baby does not need any other food or water.)

Why not give a baby other food or water before six months? (Baby is more likely to get diarrhoea, will take less breast milk and that will cause the supply of breast milk to decrease)

When do babies need to start to eat other foods?

(At six months)

How long do babies need breast milk? (Up to 24 months or beyond)

Why do babies need food at six months?

(They are more active; they need more energy and nutrients than they can get in breast milk, their gut has developed more and they can digest other food. These foods are called complementary foods.)

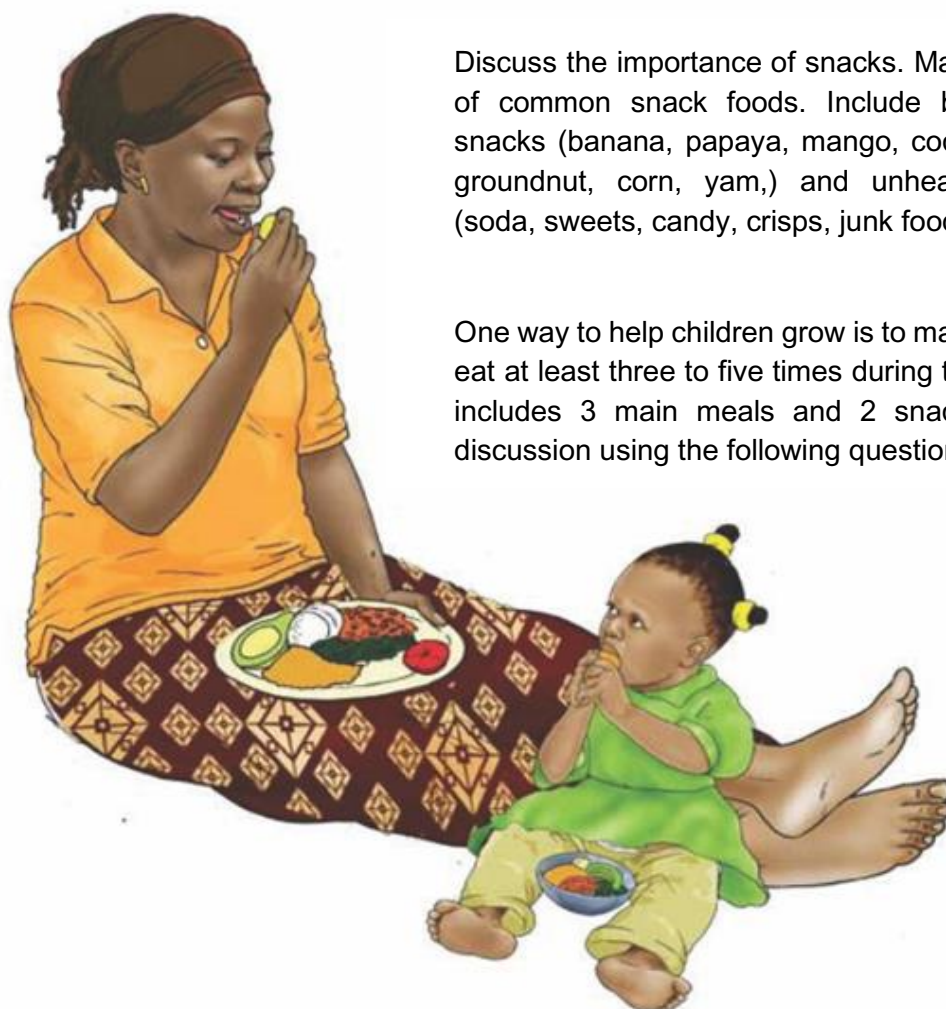
What happens if a baby does not get complementary foods at six months?

(Will stop gaining weight and growing well because they will not have energy, Iron and Vitamin A gaps, may not be interested in other foods later)

30 Min

1. Prepare and eat a snack together

Note: Have participants wash their hands before preparing the snack



Discuss the importance of snacks. Make a display of common snack foods. Include both healthy snacks (banana, papaya, mango, coconut, egg, groundnut, corn, yam,) and unhealthy snacks (soda, sweets, candy, crisps, junk food).

One way to help children grow is to make sure they eat at least three to five times during the day. This includes 3 main meals and 2 snacks. Lead a discussion using the following questions:

Why are snacks important for children?

(Their stomachs are small so they can only eat small amounts at once, it is a chance to give a variety of foods such as fruit)

Which of these snacks (on the table) are healthy and which are unhealthy?

Why? Which are affordable?

Pick one of the healthy snacks, such as papaya, for the participants to prepare and eat together.

Note: Healthy snacks are small portion of nutritious food eaten between meals. They may be simple food items such as raw fruits or vegetables.

Session Objectives

By the end of this session, participants will be able to:

1. Describe the PD Hearth approach in simple English
2. Explain how PD Hearth is different from traditional nutrition education
3. List the three goals of PD Hearth

For further reading, refer to CORE PD Hearth Guide: pg. 1–14

Preparation

- Prepare a flip chart with the three goals of PD Hearth
- Write 'Key Steps in the PD Hearth Approach' on a flip chart or use Handout 5.1:

Materials

- Flip-chart paper
- Fresh foods (e.g., vegetables, eggs), plates, cooking pot, etc. for role play
- Glass half filled with water
- Handout 5.1: – Ten Key Steps in the PD Hearth Approach

STEPS

10 Min

1. Ask participants what they know about PD Hearth

PD Hearth is an internationally proven community-based model for rehabilitating malnourished children in their own homes. It targets at risk, moderately and severely underweight children aged between 6 and 59 months.

“Positive deviance”, means ‘different in a positive way from what is the usual practice’.

‘Hearth’ refers to the place within a home where food is cooked and served by caregivers.

The common belief is that poor households will have malnourished children and rich households will have healthy children. 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.

Community Health Promoters 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 are identified. All the ingredients are brought to the Hearth session by the caregivers who practice cooking the foods at the Hearth session. Hearth lasts for 12 days with one day in between for rest and 6 messages developed from the situational analysis and Positive deviance inquiry are shared, one message per day. The hearth sessions are followed by a 2-week follow-up

conducted by the promoters through home visits every 2 - 3 day. 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 practice the positive behaviors at home

Key Definitions for PD Hearth

Positive Deviants (PD): Healthy children from poor households

Negative Deviants (ND): Malnourished children from rich households.

Non-positive Deviants (NPD or non-PD): Malnourished children from poor households or healthy children from rich households.

Ask participants to state the three goals of PD Hearth. Show them the prepared flip chart. Ask how each of the three goals is accomplished through PD Hearth.

1. **Quickly rehabilitate malnourished children:** Hearth sessions feed a nutrient-dense menu for 12 days plus provide two weeks of follow up; caregivers learn and practice new skills, knowledge.
 2. **Sustain rehabilitation:** Follow-up visits ensure continuation of new habits learned; use of local, affordable foods; and involvement in production projects or other interventions that help address underlying causes of malnutrition.
 3. **Prevent future malnutrition:** A growth-monitoring program ensures that the child continues growing well and identifies those who become malnourished; community involvement, including key influencers like grandmothers, builds understanding of causes and solutions to malnutrition and promotes adoption of new behaviors to change norms.
-

Ten Key Steps in the PD Hearth Approach

DAY 1

Handout 5.1: Ten Key Steps in the PD Hearth Approach

Note to trainers: 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 curriculum. Monitoring and evaluation occurs throughout the process, as illustrated by the righthand column.

	STEPS	APPROXIMATE TIME REQUIRED		
Step 1	Decide whether the PD Hearth approach is feasible in the target community.			
Step 2	Begin mobilizing the community (mobilize or create Village Health/Hearth Committee or working group within the community); select and train staff.	Mobilizing 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:	Monitor	
Step 3	Prepare for a PDI (situational analysis).	2 days of training		
Step 4	Conduct a PDI.	2 days for situational analysis 2 days for PDI 2 days for analysis and feedback to the community		
Step 5	Design Hearth sessions.	2 days		
Step 6	Conduct Hearth sessions.	2 weeks		
Step 7	Support new behaviors through follow-up visits.	Every 2-3 days in the 2 weeks immediately after the Hearth session, and continuing less frequently after that		and
Step 8	Repeat Hearth as needed. Monitor progress of Hearth graduates and track growth of all young children.			Evaluate
Step 9	Expand the PD Hearth program to additional communities.			
Step 10	Exit strategy once underweight is eliminated or phases out			

2. Ask how PD Hearth differs from more traditional nutrition-education efforts:

In PD Hearth, solutions come from within the community; bottom-up, not top-down program; uses locally, available and affordable resources; learning by doing; community 'owns' the problem and is involved in the solution, recognizes the role of caregivers in child care and feeding.

Traditional Approach	Positive Deviance 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 to two weeks
Depends on supply from outside	Generated by participants and community
Teaching what is not currently known	Discovery of what is already known and practiced by some individuals (positive deviance)
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 NGO	Equal partnership, in which community, caregivers and NGO partner to manage and implement project
External inputs not sustained after program completion; impact diminishes	Inputs from community sustained. impact sustained as well

Overview of Positive Deviance Hearth

DAY 1

Traditional Approach	Positive Deviance Approach
External inputs not sustained after program 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 averted
Run by external experts and program staff	Run by community and community volunteers and caregivers themselves with training and support from program staff
NGO or health-agency owned	Community-owned
Teachers/nutritionist from outside implement the program; health providers	Local peer educators: volunteer providers are implementers
Passive recipients: caregivers of malnourished children	Active participants: caregivers of malnourished children and family/community decision makers
Individual-focused: considers caregiver isolated from cultural context and enjoys full decision-making power over his/her child	Family-focused: considers caregiver in the context of the family and cultural system and recognizes grandmother's influential role as household advisors related to child care and feeding
KAP: Knowledge, Attitude, Practice Knowledge change approach	PAK: Practice, Attitude, Knowledge Behavioral change approach
Short-term impact	Sustained impact

Pass around a glass that is half-filled with water. Ask participants to say how they view the glass (half-full or half empty). One can choose to look at a problem in terms of what is lacking or in terms of what is present. PD Hearth seeks solutions from the community that can address malnutrition. PD Hearth is a low-cost program. World Vision experience as at 2021 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 year¹

¹ World Vision International. June 2020. Health and Nutrition technical Brief. Positive Deviance Hearth plus (+) project model

Session Objectives

By the end of this session, participants will be able to

1. Describe the assessment process and essential considerations for determining if PD Hearth is a possible approach in a target area
2. Evaluate if PD Hearth is a good approach for a target community (case study)
3. Review alternative approaches to use when PD Hearth is not feasible or appropriate

For further reading, refer to **CORE PD Hearth Guide: pg. 17–25**

Preparation

- Flip chart for step 1. Write on the top: 'Essential Considerations for PD Hearth Program
- Flip chart (1 for each small group) with questions on the exercise in step 2 written on it
- Print out Handout 6.1 and 6.2

Materials

- Handout 6.1: Case Studies: Is PD Hearth appropriate for these settings?
- Handout 6.2: Where to Implement PD Hearth

STEPS

10 Min

1. Criteria for Determining PD Hearth Feasibility

- 1) **An area with more than 30% children underweights.** At risk, moderate and severe underweight, based on weight for age, affects more than 30 percent of children 6-59 months old or 30 underweight children between the ages of 6-59 months. PD Hearth is cost efficient only where there is a sizable concentration of - malnourished children. The 30 per cent cut-off may include at risk, moderate and severely underweight, but programs concerned with cost efficiency may want to focus PD Hearth activities on those who are moderately or severely underweight and use fewer intensive methods to address the children at risk of becoming underweight. In large communities, an alternative criterion may be the presence of at least 30 moderately or severely underweight children in the 6–59 months age range. Since it is unlikely that an implementing agency will have done a census-based nutritional assessment prior to deciding whether to implement the program, the decision can be based on existing growth monitoring data, data from surveys of a representative sample of the population, or other existing data such as data from Kenya Health Information System.

Note:

- a) The area of coverage may be determined depending on the severity of malnutrition and the resources available. This may be in a county, sub county, community unit or facility catchment area.
- b) PD Hearth uses weight for age because that is the indicator most sensitive to change and does not require height measurements, which are difficult to collect. While mid-upper-arm-circumference (MUAC) is useful in screening for malnutrition in emergencies, it is not specific enough to identify all children who are also below weight for their age.

Determining the Feasibility of the PD Hearth (STEP 1)

- 2) **Affordable food is available.** A fundamental precept of PD Hearth is that families can rehabilitate their children and prevent malnutrition with affordable, locally available food. If all poor families in the community are reliant on food aid or are eating only the staple food due to lack of anything else, other interventions to improve food security must come first. In some areas, households have access to cash transfers that enable the households to purchase foods.
- 3) **Homes are located within a short distance to one another.** Because caregivers are expected to come with their children to the Hearth session every day and the promoters must make frequent home visits, the homes must be within easy walking distance as determined by the community.
- 4) **Community commitment to overcome malnutrition.** Such may include where we have an already existing functional Community Health Unit (CHU), active Community Health Committee (CHC) and CHPs. A commitment will serve to mobilize resources and pave the way for organizing Hearth sessions and providing peer support to participating families. If there is no governing or civic body to work with, it may be necessary to form a village health committee. PD Hearth has not been successful where populations are transient and lack a sense of community.
- 5) **Access to basic complementary health services.** Health services are necessary for the children to receive inputs not available at the Hearth, such as deworming, immunizations, malaria treatment, micronutrient supplementation and referrals. Children receive the needed services before entering the Hearth and may be referred for further evaluation and treatment if they do not show adequate weight gain after participating in the Hearth for two weeks with two more weeks of follow-up visits at home.
- 6) **Identification and tracking systems for malnourished children.** Systems for identifying and tracking malnourished children exist or can be developed. While such systems are not a prerequisite, they must be developed for the program. The first step may be a door-to-door census and weighing of children, but then a routine monthly growth-monitoring system must be established not only to track the children who complete the Hearth sessions, but also to detect other children who may need to enter the program. PD Hearth is intended to be only one phase of a wider nutrition program.
- 7) **No reliance on food aid.** The presence of food aid in Hearth can be minimized with careful planning. Families need to learn to provide the nutrition their children need from local foods, rather than food aid, which is not a sustainable solution to malnutrition or food insecurity. Limited amounts of food aid, in the form of local staples (such as rice and oil) can be used in the Hearth menus, but the participating families must contribute the other foods in order to learn firsthand about their accessibility and affordability. The Hearth sessions emphasize using locally available foods.
- 8) **Strong organizational commitment of the implementing agency.** This is essential, because of the effort required to start a PD Hearth program, the implementing agency must be willing to adjust budget, devote adequate staff time, and monitor quality. PD Hearth can be phased out of a community after a year or two, when there are no more malnourished children.

10 Min

2. Group Activity

Divide participants into small groups and pass out the case studies (Handout 6.1) and a flip chart with the following questions to each group. For each case, the group should answer the following questions and summarize for the large-group discussion:

- Does this case meet the criteria for a PD Hearth program?
- What are the strengths that would help PD Hearth succeed in this community?

Advantages

- What are the challenges of doing PD Hearth in this community?

Disadvantages

- If PD Hearth is not appropriate, what other approaches could address the nutrition problem.

20 Min

3. Return to the large group. Allow each small group to discuss the case studies informally and to present its conclusions about the appropriateness of PD Hearth. Ask for comments and discussion by the large group. Be sure to discuss alternative strategies if PD Hearth is considered inappropriate.

5 Min

Session summary Recap the important criteria and take questions from the group on PD Hearth Step 1 (determining the feasibility of PD Hearth). Read and analyze the following cases. Decide whether PD Hearth will work in each situation. If not, explain why not and think about an alternative approach. Suggest additional nutrition strategies and interventions needed from other sectors. If PD Hearth is appropriate, but there are special challenges, please describe how to overcome them. PD Hearth will not work everywhere. It is important to consider the criteria when deciding if PD Hearth is the right approach for a given community.

-
- 1) Read and analyze the following cases.
 - 2) Decide whether PD Hearth will work in each situation. If not, explain why not and think about an alternative approach.
 - 3) Suggest additional nutrition strategies and interventions needed from other sectors. If PD Hearth is appropriate, but there are special challenges, please describe how to overcome them.
 - 4) Is PD Hearth appropriate for these settings?

Case Studies: Is PDH Appropriate for these Settings?

Handout 6.1: Case Studies: Is PDH Appropriate for these Settings?

Case 1 - Kisumu - 12 per cent malnutrition but 35 children underweight

All the families make their living by fishing or selling fish. They live in a small village with houses very close together. The men are gone from before dawn until noon. When they return, they expect their big meal to be waiting. The women spend the afternoon cleaning fish and repairing the fishing nets. They work together on the beach and take their babies on their backs. Older children stay at the house with grandmothers or older siblings. There is plenty of fish to eat, but few fruits and vegetables most of the year. The health centre is in the next town, 15 minutes away by bus.

Case 2 – Kericho tea farm– 35 per cent malnutrition

Families live in very small villages scattered through the tea estates. There are 10 to 20 families in each village. It can take between 30 minutes and one hour to walk over very hilly terrain to the main estate village. Nearly all the mothers work full time on the tea estates. The children from six months to three years spend nine hours a day in daycare facilities with two paid employees. Food in the day care facility is provided by the estate. (After three years of age, children stay with grandparents during the day until they start school at age five.) The day care facility is located next to a good health clinic provided by the estate management. There is a joint management body made up of representatives of both workers and management.

Case 3 – Budalangi – 32 per cent malnutrition

This good agricultural area produces grain, fruits and vegetables. The houses are dispersed, spread out over mounds. Grandmothers care for the small children when women go to the fields to work or the river to fish. There is a health centre in the nearest town, which is a four-hour walk for many families. When the rains come and water surrounds their mound, families cannot easily travel to other homes or villages. Some families have to move to higher ground for three or four months, which makes it difficult for them to raise poultry or livestock.

Case 4 – Kakamega - Eshimukoko – 39 per cent malnutrition

Most of the children in this community are very short for their age. The families are engaged in farming, with most women at home except during harvest time. The village is very compact, and people work together on many community projects. Grandmothers decide when children should start getting water or food, often when they are one month old. There is a small Christian hospital, and government health workers bring vaccines and vitamin A.

Case 5 – Peri-urban -Mukuru kwa Njenga – 20 per cent malnutrition

Families live in densely populated squatter settlements in simple houses with no sanitation. Water is fetched from central water taps some distance away. Families have easy access to health facilities. Because the houses are so small, most families do not cook at home. They buy cooked food from street vendors and snacks from the many small shops. Most women are at home during the day. Those who work leave their children in the care of older women. There are approximately 40 moderately and severely underweight children between the ages of 6-35 months.

Handout 6.2: Case study notes/answers**Case study 1:**

Kisumu – level of malnutrition does not warrant the effort of PD Hearth.

Case study 2:

Kericho Tea farm – PD Hearth is not appropriate; work is needed with the day-care, not the home.

Case study 3:

Budalangi – Homes are too dispersed. Use creative approaches to promote appropriate breastfeeding and complementary feeding at clinics, markets, by radio, and so forth.

Case study 4:

Kakamega Eshimukoko – PD Hearth would be appropriate; grandmothers could be asked to run the Hearth sessions. Children will need to be screened for stunting.

Case study 5:

Peri-urban slums Mukuru kwa Njenga – This situation has some potential for successful PD Hearth; however, it may be more important to put together menus of street foods since women don't cook at home. Although underweight level is less than 30 per cent, there are still greater than 30 malnourished children in a densely populated community.

Daily Summary and Evaluation

10 MIN

DAY 1

Handout 6.3: Daily Summary Evaluation

Session Objectives

By the end of this session, participants will be able to

Evaluate their personal learning for the day.

Preparation

Make a flip chart with the daily evaluation questions (listed below)

Materials

Half sheet of paper for each person

Each participant will reflect on the day’s sessions thus far and write in his or her curriculum ideas to improve or adapt the various methods of presenting the material so they are more appropriate for his or her culture. Ask the participants to be ready to share any good ideas they might have.

Daily Evaluation

Distribute a half sheet of paper to each participant.

1. Something I learned today that I will apply in our PD Hearth program is

.....

2. Something new that I learned about PD Hearth today is

.....

3. Something I am still confused about is

.....

Note: The facilitators will review these evaluations at the end of each day and spend a few minutes at the beginning of the next day clarifying any issues raised in number 3.

Thank the participants for their good work. Mention any highlights of the day. Remind them of the time for the next meeting.

10 Min

By the end of this session, participants will be able to

- Review Day 1 content
- Outline what will be covered today.

Preparation

Review questions for Day

Materials

- Ball
- Prizes for winning team members

Ask the participants to form two lines facing each other. Ask a question. Throw the ball to a person, who must then answer the question. If the answer is correct, ask another question.

- What is one goal of PD Hearth? (Ask the question three times.
- people give different goals)
- What is one of the ten key steps in the PD Hearth Approach?
- What is a criterion to determine if PD Hearth is feasible?
- What is a responsibility of a Facilitator?

Review agenda for today.

Community Mobilization (STEP 2)

45 MIN

DAY 2

Session Objectives**By the end of this session, participants will be able to**

1. Define what is community mobilization
2. Describe successful community mobilization methods for involving key stakeholders and community members

Preparation

1. Print out Handout 7.1
2. Prepare one flip chart titled 'Whom do you need to mobilize for PD/ Hearth?' with a simple Venn diagram on it.
3. Prepare one flip chart with the Triple A cycle (see below).
4. Prepare a flip chart with the following discussion questions:
 - What is the role of the Ministry of Health?
 - What is the role of the other stakeholders?
 - What is the role of the Community Health Committee?
 - How do you get maximum buy-in and support?
 - How do you keep this involvement?

Materials

- 7.1 Handout: Community Mobilization (STEP 2)

STEPS

10 Min

1. Importance of community mobilization in PD Hearth

Emphasize the importance of community mobilization. PD Hearth needs involvement by the community in order to succeed. This is a very important component that is often overlooked but necessary to deliver sustainable impact and prevent malnutrition in younger siblings. PD Hearth Facilitators should have a solid background in community mobilization. Note that community mobilization is an important topic, and many participants have a lot of experience with it. The discussions in this course will focus on the context of community mobilization for PD Hearth, but will also pull from the expertise of the group. Use key questions to brainstorm and guide discussion, writing group input on flip charts.

Note: uncover the previously written questions one at a time.

Key stakeholders in PD Hearth

Show the participants the diagram of overlapping circles (Venn diagram) on a flip chart. Each large circle represents a group of people in the community who may need mobilization for PD Hearth.

Ask participants which individuals in the community needs to be mobilized. As they call out answers, write one group of people in each circle. Ask which people within each of these groups should be included? Add these groups to the smaller overlapping circles to show that there are many stakeholders who need to be mobilized for PD Hearth (community leaders; fathers, grandmothers, mothers and other caregivers; healthcare workers, CHPs, religious leaders, local media, National/County government administrative officers, school teachers; and many others can contribute to the success of a PD Hearth Programme).



Figure 7.1

What is the role of the Ministry of Health?

The Ministry of Health provides support services such as immunization, deworming, Vitamin A supplementation; training; monitoring; and scale-up of lessons from PD/ Hearth into existing health and nutrition message sharing systems).

What is the role of the Community Health Committee?

(Does a CHC exist? Does it need to be revived? The CHC manages and coordinates health activities at the local level; sets criteria, selects and supervises community health promoters; and collaborates with the implementing organization and county healthcare workers.

What is the role of the Ministry of Agriculture?

The Ministry of Agriculture promotes/support interventions to improve food availability and accessibility

Ministry of Water

The Ministry of Water supports provision of safe and adequate water for domestic use and agriculture

Ministry of Social Services

The Ministry of Social protection promote nutrition sensitive interventions i.e., cash transfers, HIF, the rights of children etc.

Ministry of Education

The Ministry of Education supports the implementation of school health program which includes Vitamin A Supplementation / Deworming and school feeding in collaboration with the Ministry of Health.

Media

The Media promotes Advocacy, Communication and Social Mobilization (ACSM)

Community leaders

Community leaders are the gate keepers / decision makers / influencers that allow access to the community

Roles of CHPs

CHPs have roles to play in the PD/ Hearth process e.g., during children assessment, wealth ranking, hearth sessions, follows ups etc.

Caregivers

Caregivers are responsible of feeding, caring, provision of health care for children and maintaining optimal hygiene and sanitation in the household

Can PD Hearth be implemented without a Community Health Committee (CHC)?

In the absence of a CHC, it is important to identify management resources at the grassroots level; build on existing resources. If possible, work to re-establish a non-functioning committee or establish a CHC.

What are the roles of grandmothers/other household influencers?

In many cultures, grandmothers/ other households' influencers greatly influence on child care and feeding, and therefore are important figures to engage throughout PD Hearth. Examples of such household influencers include social media, peers, spiritual leaders, partners etc. The following activity will help to illustrate the importance grandmothers have, especially in maternal and child care, and the necessity to include them in PD Hearth.

Ask participants to identify ways to involve grandmothers/households' influencers in PD Hearth. Ensure the following points are included:

- Consider grandmothers/household influencer for leadership roles
- Consult grandmothers/ household influencer during situational analysis
- Interview grandmothers/ household influencers during PDI and/or involve grandmothers in conducting the PDI
- Engage grandmothers as participants in Hearth, either as caregivers or part of caregiver-grandmother pairs
- Include grandmothers /household influencer in follow up home visits, including review of child's progress and discussion of challenges to implementing PD practices at home

Strategies to maximize stakeholders' support and commitment

Divide into five groups (or as many groups as circles on the Venn diagram on key stakeholders in PD Hearth). Each group represents one community group. Come up with as many strategies as possible for:

- Maximizing commitment and support
- Maintaining involvement throughout the project.

After a few minutes, call on participants from each group to state the ideas their groups have come up with.

Note: Listen to the participants' knowledge. The solutions are in the group. Discuss the following questions:

How do you get maximum commitment and support?

Engage the community as the primary partner, with a role in the selection criteria of CHPs. Be sure to involve in the process people who might raise barriers. How do you keep this involvement throughout the project? Establish a partnership with the community from the beginning and maintain it throughout.

PD/ Hearth Assessment, Analysis and Action

See the Triple A cycle (assess, analyze, action) discussion on pg. 29 of the CORE PD Hearth Guide. Programme management is carried out in partnership with the community by assessing the problem, analyzing its causes and taking action based on this analysis.

From the community mobilization and ownership steps below, what activities might the community include in each circle (assessment, analysis, and action)?

(For assessment refer to feasibility, for analysis refer to situation analysis and on action refer to designing and implementation of PD /Hearth)

Discuss together the best time when the community can be mobilized (based on the following steps).

Community Mobilization (STEP 2)

10 MIN

DAY 2

Handout 7.1: Community Mobilization (STEP 2)

2. STEPS FOR COMMUNITY MOBILIZATION AND OWNERSHIP:



Step 1: Identify community leaders using existing community health promoters and plan to meet them, religious leaders, women representatives and all stakeholders

Step 2A: Ask community leaders for their permission and invitation to use the PD approach (finding existing solutions to malnutrition problems from within the community). For wider community reach, ensure clear messaging in reaching them e.g., use of existing local communication channels and relevant IEC materials.

Step 2B: Ask about the existing local health systems e.g., CHC and local food system. Discuss a way to describe PD concepts in the local language (i.e., proverbs, stories). Discuss CHPs selection if CHPs do not exist.

Step 3: Engage the community to define the problem (conduct wealth ranking); weigh all the children in the target group with community members, especially men (GMP session). Other very important activities to engage community members/include: community /social mapping (include young men and women in this activity), transect walk seasonal calendar, market survey, and wealth ranking.

Step 4: Community Feedback Sessions: Engage community members in a discussion about the issue of childhood malnutrition; discuss its causes, common challenges, and constraints, and ask for their ideas or suggestions for solutions. Involve men, grandmothers, mothers, and all women who delivered the year before, including religious leaders, traditional birth attendants, and traditional healers/herbalist.

Step 5: Second Community Feedback Session: Mobilize the community members and leaders and share the baseline information (results of the nutrition assessment) using visual posters to show the current nutritional status within the community (avoid using technical terms). Also, if time allows, share the visuals that the community created; social mapping, seasonal calendar, market survey, and wealth ranking.

Step 6: Plan and carry out PD inquiries with community members.

Step 7: Have community members (CHC) analyze and select key PD behaviors share the PDI findings with the whole community, examining the PD behaviors and strategies with the community members; invite CHPs/ CHCs to develop a plan of action that will include Health sessions and other supporting interventions (food production WASH etc.)

Session Objectives

By the end of this session, participants will be able to

- (i) Describe 3 ways PWD has been mainstreamed by the government
- (ii) Describe the rationale for including persons with disability in PD Hearth
- (iii) Understand why PWD are likely to be excluded in the program

For further Reading refer: CORE PD Hearth Guide: pg. 20–24, 31–35, 39–42,

Preparation

- Prepare flip chart with the headings and diagrams of the models under each heading (refer to Handout 8.1) Medical Approach, Charity Approach and Inclusive Approach

Materials

- Flip-chart paper
- Post-it notes to distribute to each group
- Markers
- Handout 8.1 and 8.2

STEPS

1. Introduction to the different approaches to disability

Everyone has a right to health, education and income generation, but the needs of People with Disabilities (PWD) have traditionally been treated as separate and specialized which has put them outside mainstream society. The UN Convention on the Rights of Persons with Disabilities challenges this narrow approach. The emphasis for inclusion is placed on society rather than PWD. They should be seen as whole people with the same needs as others, able to choose how they are supported.

According to the Kenyan Constitution, a person with any disability is entitled to:

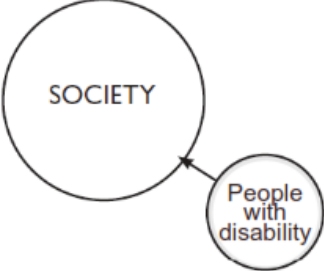
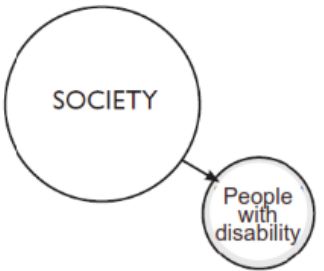

- a. Be treated with dignity and respect and to be addressed and referred to in a manner that is not demeaning.
- b. Access educational institutions and facilities for PWD that are integrated into society to the extent compatible with the interests of the person.
- c. Reasonable access to all places, public transport, and information.
- d. Use Sign language, Braille, or other appropriate means of communication; and
- e. Access materials and devices to overcome constraints arising from the disability.

The 3 Approaches to Disability



Evidence also shows that parents of children with intellectual and developmental disorders are more likely to delay seeking medical care Sources: United Nations Children’s Fund, *Seen, Counted*, included: Using data to shed light on the well-being of children with disabilities, UNICEF, New York, 2021 Hannah Kuper, Phyllis Heydt. July 2019. *The missing billion. Access to health services for 1 billion people with disabilities.*

Handout 8.1: The 3 Approaches to Disability

INDIVIDUAL MODELS: MEDICAL APPROACH	INDIVIDUAL MODELS: CHARITY APPROACH	SOCIAL MODEL: INCLUSIVE APPROACH
		
<p>Activities “fix” PWD, who is ‘sick’, so they can join ‘normal’ society</p> <ul style="list-style-type: none"> • disability is a problem in the person • a traditional understanding of disability • focuses on a person’s impairment as the obstacle • defines PWD only as a patient with medical needs • segregates PWD from the mainstream • offers only medical help, carried out by specialist • expensive, tends to benefit relatively few 	<p>Activities ‘help’ PWD who is ‘helpless’ and outside ‘normal’ society</p> <ul style="list-style-type: none"> • disability is a problem in the person • they are seen as ‘unfortunate’, • ‘dependent’ or ‘helpless’ • they are regarded as people who need pity and charity • assumes people with impairments cannot contribute to society or support themselves • provides them largely with money or gifts, such as food or clothing • PWD become long term recipients of welfare and support aid provided by specialist • organizations not mainstream development • PWD viewed and kept as separate group 	<ul style="list-style-type: none"> • Activities focus on inclusion • PWD are part of society • focuses on society, not disabled people, as the problem • regards PWD as part of society, rather than separate • people are disabled by society denying their rights and opportunities • sees disability as the social consequences of impairment • PWDs needs and rights are the same as non-disabled people’s e.g. love, education, employment activities focus on identifying and removing attitudinal, environmental and institutional barriers

There are three ways disability has been approached in development. The first two models – medical and charity approaches – focus on barriers to participation being with the PWD. The third way – social model – focuses on barriers being with society’s view of PWD. Essentially,

both the medical and charity approaches (known as the ‘individual’ models as they focus on the PWD as the ‘problem’) have targeted PWD as a separate group – needing specialized or dedicated services, chosen on their behalf by ‘experts’. This is characterized by development initiatives such as provision of prosthetic limbs, rehabilitation or speech therapy programs, setting up specialist income-generating projects or vocational training centers for people with disabilities under the charity model. These models do not address PWD inclusion, their participation and rights in the community and society. These services may be needed, but the decision-making power is often with the “experts” and not the PWD. By contrast, the social model makes the assumption that PWD should participate in all development activities. But it also assumes those actions may need to be adapted for accessibility. It means taking responsibility for understanding how to include the PWD as stakeholders in all mainstream work and looking for ways to support their participation in community life. Primary caregivers’ knowledge on PWD and care is low in many contexts. Caregivers of children with disability do not bring them to health facilities or GMP sessions due to stigma associated with disability. It is important to increase awareness of the community and increase the confidence of primary caregivers to seek support to know how to better care for their children with disability and create an environment where children with disability feel valued and empowered. We must mobilize the community leaders and influencers to ensure they understand the importance of including children with disability into society and giving them more attention to ensure they get the necessary access to rehabilitation, therapy, or other health and nutrition services.

Note

Try not to make the mistake of saying medical and charity approaches are ‘bad’ and social is ‘good’. Not only is this too simplistic, but it may also provoke strong reactions from people who have followed the individual approach to PWD throughout their career. It is especially difficult for medical and welfare personnel. PWDs do often require medical assistance and specialist support. The main issue is choice – often decisions are made on their behalf, rather than at their request or in consultation with them.

Individual vs. Social Models focusing on Disability (Group Work)

1. Ask participants – ‘What words do you associate with PWD? What words or images come to your mind when you say or think of the word “PWD”? What are some words that are used to call persons with disabilities?’
2. Divide participants into small groups of between four and six. Ask them to discuss the words they have come up with.
3. Ask them to write the words they would like to share with the whole group onto the cards provided (one word or picture on each card and only on one side). Each group needs to keep their cards safe, ready to share with the others later.
4. Bring the whole group back together. Using the diagrams, explain the concepts of medical, charity (individual) and social models of PWD. Use the information in Handout 8.1 to describe each model. Explain to participants they will be given handouts afterwards so they do not need to take notes.
5. Having carefully explained each of the different approaches, ask each small group to lay out their collective words on the floor or on the wall in front of the wider group under the heading of medical, charity or social. Discussions will follow as participants try to explain why they placed words under particular headings.
6. Encourage people to question whether they think the words are under the most appropriate headings.
7. It is strongly recommended that you take time to ensure at the end of the activity participants understand the differences between individual and social models of PWD.
8. Advise participants to share these 3 diagrams with the community when conducting the first community feedback meeting to help them to better understand how to include PWD population into the community.

Why persons with disability are Excluded.

Why are children with disability excluded from most health and nutrition services or programs? This is the core question tackled head-on in this section.

1. Ask the whole group (participants and later on, community members) the following questions:
 - Do you actively include children with disability (or measure their participation) in your program or community activities?
 - If not, why don't you actively include them?
 - The key part of these questions is the word 'actively'. This should be stressed when you pose the questions. Encourage people to be honest about their answers – this will give them the best opportunity to analyze the issue.
2. Assuming that the group does not actively include children with disability, list down all the reasons people give on a flip chart paper. Possible answers will include – it is expensive; time-consuming; we do not have the experience; we do not know how to; why should we, this is one more marginal group amid many others; it 'is not practical in our type of work; etc.
3. Explain the most likely common misconceptions – and their responses – given overleaf. We need to sort out the problems of "normal" people first'. 'It's not cost effective'.
 'There aren't many disabled people here, so it's not an issue'.
 'We don't "do" disability'.
 'We don't have the skills.'
 'Let's create a special Programme'
4. Divide participants into groups of four to six. Give each group a selection of the excuses they have come up with. Ask them either to turn them into positive statements about how we could mobilize the community so PD Hearth could include PWD and we could overcome the stigma that exists in the community – or develop a reply refuting the statement. They need to imagine they are facing people who are coming up with all these reasons why they do not want to include disabled children in GMP, PD Hearth, or other community-based programs. Their job is to reassure them that inclusion is a good development practice – and this will improve the effectiveness of the programs as a whole.
5. Ask the groups to present a selection of their favorite responses to the rest of the participants. They can do this in whatever format they choose. Some groups might like to illustrate their ideas with pictures, perform a short dialogue highlighting the debate or simply describe their ideas. These illustrations could be shared with the community members during the first community feedback session to help community members better understand why PWD inclusion is important and necessary.

A whole range of reasons are given when you ask why PWDs are not travelling on the 'main road' of development. Here are some of the most commonly held views – along with informed common-sense responses.

Common myths about disability inclusion

“We need to sort out the problems of “normal” children first’.

PWD is normal. Children with disability are in every community. It’s an expression of the diversity of the human race. Our perceptions are distorted by social norms which keeps PWD out of the public arena, and by the narrow vision of beauty presented in media images. Good development work challenges conditions which exclude the oppressed – PWDs are among the most oppressed.

‘It’s not cost effective’.

Including children with disability is often seen as an ‘extra’. It happens in an ideal world. It’s a luxury. Saying ‘we only have enough money for the basics, so we can’t afford to include them’ denies the reality that PWD needs are the basics. It doesn’t necessarily cost much more to include them in development, especially if it is planned from the outset. For example, physical accessibility is estimated to account for additional construction costs of between 0.1 and 3.0 per cent.

“There aren’t many children with disability here, so it’s not an issue’.

Disability is treated as a specialized area, often because of the misconception that their number is insignificant. This myth arises because many PWDs are invisible. In reality, they may be hidden due to stigma, or are excluded from meetings because of a lack of access. If frontline workers do not see children with disability in their work, they tend to assume they don’t exist in the community. Disability affects the family and community as well as the individual, and they also face discrimination and increased poverty.

‘We don’t “do” Disability’.

PWDs are often regarded as a distinct target group for separate programming. So, some agencies specialize in disability and others do not, thinking their needs are already being dealt with. However, only a small number of children with disability participate in programmes of specialized agencies or targeted work. By not including children with disability, mainstream programs fail to address the needs of a group who account for at least 10 per cent – and perhaps up to 20 per cent of any given population. Worldwide, more than one billion people have some form of disability.

‘We don’t have the skills.

Working with PWD is not significantly different from working with any other group. PWD are the best experts and can often suggest modifications to make things work for them. It is largely about changing attitudes. Sometimes low-tech simple solutions can have a major impact on accessibility for PWD.

‘Let’s create a special program’.

It is unrealistic to expect a single specialist intervention programme to address all the needs and rights of all children with disability (CWD) – who are a diverse group. Many of these needs are shared by other CWD. They are best addressed within the framework of the whole community. Perhaps you have come across other reasons why inclusion of PWD is not happening – what should a common-sense response to them be?

Disability inclusion in each PD Hearth STEP**1. Decide whether the PD Hearth approach is feasible in the target community.**

Check whether there are referral services for children with disabilities

2. Mobilize and train community health promoters

Introduce different approaches of disability (e.g., medical, charity and inclusive) and common myths of disability – this can be done during volunteer training.

3. Conduct a situational analysis: Invite 2-3 caregivers of children with disability to participate in situational analysis activities, particularly community mapping (to identify all households in the community with children with disability) and wealth ranking. Screen all children with disability with a short set of questions (5 questions) for PWD during the nutrition assessment. Visit all households in the community with children with Disability and measure weights and MUAC, as they are not likely captured in centralized nutrition assessment.**4. Conduct a PDI:** Refer children with feeding impairments to the hospital (only if referral services are available)**5. After the analysis of the situational analysis,** share the data on PWD amongst young children during the community feedback session along with all the learnings from these activities.

At least 1-2 households of children with disability should be included to understand the challenges and positive practices within these homes

6. To deepen and clarify understanding, FGDs can be done with household of children with disability and Key Informant Interviews with representatives from Organizations for PWDs.**7. Conduct home follow-up visits**

Visit 2-3 times per week for two weeks after Hearth (all children)

At least monthly or more frequent visits for households of children with disability for 1-3 months after the start of Hearth (until graduation) – same applies to those with red/yellow MUAC and/or severe underweight status

8. Repeat Hearth and Monitor Children

Children with disability or difficulty with eating or drinking have a poor appetite or eat less than other children of the same age and are admitted to PD Hearth regardless of the MUAC or underweight status because they are more likely to be prone to malnutrition

Children with Disability graduate after three months based on weight gain of ≥ 900 grams' weight gain after Day 1 of Hearth without regard to change to underweight status. These children are followed up every month after Hearth (or more). Graduation criteria for children with disability weight gain of at least 900 grams by 3 months after Day 1 of Hearth

Growth monitoring for children with disability may need to offer alternative options, e.g., follow-up at home or decentralized locations to facilitate caregivers bringing children to growth monitoring Additional indicators to track for PD Hearth with PWD inclusion, e.g., Number of participants in PD Hearth who are PWD (tracked on monitoring forms/PD Hearth database)

Session objectives

By the end of this session, participants will be able to

1. Describe situational analysis and identify potential sources of information.
2. Describe how to collect information through community mapping, transect walks, wealth ranking, nutrition assessments, seasonal calendars, and market surveys.
3. Explain the purpose and process of wealth ranking using community criteria.
4. Identify the standards for and challenges of conducting a wealth-ranking exercise.
5. Use pre-defined criteria to rank households by wealth status.
6. Complete filling out and compiling of wealth-ranking data on situational analysis.
7. Use excel template to analyze the data collected.

For further, refer to **CORE PDHEARTH Guide: pg. 57–66, pg. 65–66, pg.70–83**

Preparation

Provide participants with soft copy of Situational Analysis tools. Print copies of Handout 9.1 and 9.2 for each participant

Materials

- Print copies of Handout 9.1 and 9.2 for each participant
- Handout 9.1: Case Examples for Wealth-Ranking Exercise
- Handout 9.2: Case Examples for Wealth-Ranking Exercise ANSWER KEY
- Handout 9.3: Wealth Ranking for PD Hearth

Review Day One

Ask the participants to form two lines facing each other. Ask a question. Throw the ball to a person, who must then answer the question. If the answer is correct, ask another question. If it is incorrect, repeat the question. The person holding the ball throws it to a person on the other team, who must answer the question. The team that answers the most questions correctly win.

Possible questions:

- What is one goal of PD Hearth? (Ask the question three times; people give different goals)
- What are the ten key steps in the PD Hearth Approach? Name one.
- What are the criteria to determine if PD Hearth is feasible?
- What is the responsibility of a Facilitator?

10 Min**1. Introduction**

Explain that Step 3 consists of; (1) Situation Analysis (e.g., transect walk, social mapping, and market survey), including wealth ranking, and (2) Nutrition Baseline Assessment. These will help to provide a comprehensive understanding of the current situation in the community such as existing resources, the functionality of resources, the seasonality of foods available, common diseases, disabilities, and/or sicknesses, common practices within the households, food taboos, and other myths associated with child feeding and caring practices, etc.

It is important to mobilize the community during this process of discovery so as to create community ownership. This is an important and effective tool to help the community discover the resources that already exist so that they are empowered and motivated to overcome the problem of malnutrition as a community.

Each of these components will be discussed in detail.

Use the following questions to generate a discussion of situational analysis:

What kinds of information do we need in order to know what is normal in the community? Healthcare workers/CHPs need general information on health, including immunization coverage; incidence and case management of major childhood illnesses; disability prevalence; attitudes and services; micronutrient situation/supplementation; care-seeking; levels and causes of under- five mortality; current beliefs and behaviors.

Who are the sources of this information?

In addition to CHPs and healthcare workers, consult grandmothers, mothers and other caregivers, community leaders, fathers, grandfathers and vendors. CHPs and healthcare workers may have misinformation or lack information. They may be of slightly higher socioeconomic status than caregivers, so be cautious about 'information' that may be based on stereotypes. Community members themselves have the best information about the local situation.

How can we gather information?

Look for quantitative information, e.g., health-system documents, Knowledge Practice Coverage (KPC) and other surveys, as well as qualitative information such as interviews with key informants, group discussions, Participatory Learning for Action (PLA) (and Participatory Rapid Appraisal (PRA) – PLA/PRA – are the two appraisals commonly applied to participatory assessment methodology.) See CORE PDHEARTH Guide (pg. 62) and the specific list of methodologies (pg. 64).

How can we and the community learn the common feeding and health practices of families with malnourished children?

We can conduct both household interviews and observations using the same tools we use for the PDI and conduct guided group discussions with many poor non-PD caregivers and/or families to learn about the existing practices, the existing beliefs (e.g., food taboos and care/feeding practices for disabled children). Such discussions allow us to get a sense of the 'norm' within the community. This will later help to identify the PD Hearth practices.

10 Min

2. How to prepare for situational analysis.

The situational analysis includes the following activities (in this order):

1. Community mapping
2. Transect walk
3. Wealth ranking
4. Other activities can be done in any order or simultaneously.
5. Nutrition assessment
6. Seasonal calendar
7. Market survey

Let's now have a closer look at each of these activities:

1. Community Mapping

Community/social mapping is used to mobilize the community and create community ownership of the program, as is wealth ranking. Community/social mapping is also used to help the community identify the existing resources within their surroundings such as the water sources, major roads where the market, farms, schools, day care centers and health centers are. It also helps the PD Hearth implementers to understand the environment and the community existing resources and needs. The community map can be used to guide the Transect Walk.

Ask if anyone has done community mapping. If so, ask one person to describe the process. What information can be depicted on a community map?

Break into four groups. Each member of the group is from the same imaginary village. Work with them to develop a community map. Mark main landmarks, water points, fields, houses. Show which parts of the community have malnourished and children with disability. Remember to develop a key. In some instances, there already exists a map as per community health strategy guidelines. Ask participants to update this.

Discuss how these maps might be used for PD Hearth. Mark where malnourished children live; locate where PD families and Community Health Promoters (CHPs) live; select children for Hearth sessions by how close they live to the volunteer; change the colour of the house when the child becomes well nourished, and so on. For disability inclusion, mobilize 2-3 caregivers with children with disability and ask them to indicate the homes of households with such children. Disability can be generally defined as children with restrictions in mobility, hearing or vision impairment, and/or cognitive impairment. Draw the homes on the community map with a separate symbol to easily identify the homes for the nutrition screening assessment step later on.

Situational Analysis (STEP 3)

Community Mapping, Transect Walk, and Wealth Ranking

Ensure the following landmarks and resources are mapped:

- Water sources (such as ponds, rivers, lakes, swamps, boreholes/wells, water pans, water kiosks, tanks and springs)
- All houses of children under 59 months of age with disabilities in the village
- Houses of children under 59 months of age
- Gardens or farms
- Schools, childcare centers
- Health centers, hospitals, outreach posts and institutional rehabilitation centers for children with disability
- Latrines
- Markets and shops
- Church mosque, temple and shrines
- Mountains or other geological barriers
- Houses of CHPs, chiefs, religious leaders, and other community leaders
- Roads (major roads and smaller paths)
- Police posts
- Administrative offices - Village/ward/sub county administrators, chiefs, assistant county commissioners (ACC) Deputy County Commissioners (DCC)
- Mobile network boosters
- Community social halls

After the community members have shared their community map, facilitators then ask questions about the map, for example:

- How did you decide to define the boundaries of the community?
Note: Some boundaries are already defined in the community health system and each CHP has a mapped area they cover
- Where do people in the community access food (whether grown, or bought etc.)? (You may probe for different kinds of food like meat, fish, chicken, eggs, dairy and dairy products, vegetables, fruits, legumes, nuts and seeds, grains, grain products and other starchy foods)
- How often do people go to markets? To shops? Which markets or shops do people access most? Why would people go to shop in the market or shops? How do they get there? Who goes to the markets and shops within the household?
- Are there special market days? Which foods are found only during the market days?
- What is the preferred time that most people in this community go to the market?
- How do households access water? (Talk about the different landmarks on the map or perhaps there are other sources that were not yet noted.) What sources are commonly utilized? What sources are less utilized?
- Where do households access sanitation? (Probe whether households have shared or non- shared latrines, type of latrine, how they are cleaned, the distance, who uses them mostly, any difference between women, men, girls, boys and groups among them, like those with disabilities.)
- What is the status of sanitation and hygiene of the surrounding (look for drainage, hand washing facilities, cleanliness of the households)?
- Where do people take their children (younger than five years of age in particular) if they are sick? How do they get there?
- Looking at the map, what features support good nutrition? What features contribute to malnutrition?
- Which spaces are safe? Why do you consider them safe? Who are they safe for? Where do children play?
- Which spaces are dangerous? Why do you consider them dangerous? Who should avoid the dangerous spaces?

20 Min

2. Transect Walk

The transect walk is a systematic walk across the community together with the local people to explore the conditions by observing, asking, listening, and looking. They are used to information in community mapping and to get additional information about the existing resources. For example, if the community map shows three bore holes, the transect walk would help verify whether three bore holes are functioning well or if two are functioning and one requires repair. Thus, the transect walk helps implementers to understand the current contexts of the community. It is also useful to visit one or two households on the transect walk and to get a glimpse of what is the 'norm' in the community such as what the community grows in the gardens, whether it is common for fathers to work in the city, mothers to work in the garden, and mother-in-law to primarily take care of children at home, etc.

The observations of the community during the transect walk can also help us during the wealth ranking exercise (e.g., Do all households have iron sheets? Do most households have a TV? If so, then these items cannot be used as part of the wealth ranking criteria because most households have iron sheets as roofs and most households have TVs, even though the household may be 'poor'). To do the transect walk, it is good to be accompanied by 1-2 community health promoters, community leaders, or volunteers who could help navigate the village/ community. Ask if anyone has done a transect walk. Ask one participant to describe how it is done. (If no one has done this, explain it yourself.) What is the purpose of a transect walk? (To work with some community members to orient us to the community; to observe what resources are in the community, to understand what some of the challenges might be, to note especially those factors that might affect nutrition and health of children - good or bad practices. It is also good to conduct one household visit while on the transect walk to observe what is planted in the gardens and the general hygiene and child caring practices. Please refer to table 9.1 below for positive feeding, caring, hygiene and health seeking practices.) Review the main reasons a child might not be growing well, as discussed on Day 1(not enough food, too many children, mother is gone all day, father is not there, not enough money, diarrhoea, sickly, disabled, unclean water, worms, no shoes, grandmother tries to help but doesn't always give good advice on practices)

1. Ask participants to name the ones they can remember.

Ask what feeding/food, caring, hygiene and health practices would have helped this child to be healthy. Probe to help participants come up with as many positive Behaviours as possible.

Table 9.1: Examples of feeding, caring, hygiene and health seeking practices that contribute to health

Feeding/Food	Caring	Hygiene	Health Seeking
Continued, frequent breastfeeding of infants up to 24 months	Positive interaction between child and caregivers (play and communication)	Use of latrine and latrine cover	Completed immunization as per schedule (preventive)
Introduce other foods at six months	Supervision at all times, responsive feeding, child stimulation	Hand washing with soap after visiting toilet, before eating, before food preparation, handling a sick patient, after changing baby's diapers	Mosquito nets used in malaria endemic areas Vitamin A supplementation Growth monitoring and promotion
Feed times / day (age-appropriate feeding)	Father providing attention/affection Father/ mother providing appropriate play and communication to the child	Safe water (boiled, covered) Hand washing with soap after visiting toilet, before eating, before food preparation, handling a sick patient, after changing baby's diapers	Regular deworming, wearing of shoes Vitamin A supplementation Growth monitoring and promotion
Variety in food; giving snacks between meals selected from the 7 food groups for children	Fathers/older siblings supports caregiver with good advice and practical care	Use of utensil drying rack	Home treatment of sick child for minor illnesses
Caregivers talk to child and make eye contact while feeding	Family members sing and play with children to stimulate learning	Keeping kitchen clean	Use of oral rehydration solution during diarrhea
Continued breastfeeding along with appropriate foods and liquids during and after diarrhoea episode.	The home is a safe environment for children to play	Opening of doors and windows during the day	Children with disability referred for rehabilitative services and feeding support

15 Min

3. Wealth Ranking

Ask how many participants have done a wealth-ranking exercise before. Explain that it is a way to identify the different socio-economic classes within a community. The objective of the wealth ranking exercise is to understand the way the community classifies its poor vs non-poor households and to determine criteria for classifying the households.

Why do we need to do this to prepare for implementing Hearth in a given community?

It is necessary to determine the poor families in order to identify positive deviants among them, i.e., the PD, non-PD, and ND households. It is important to identify these households in order to be able to conduct Positive Deviant Inquiries (PDIs).

Wealth ranking is used to develop wealth ranking criteria for the community and needs to be completed before the nutrition assessment/screening. This is because the wealth ranking questions need to be asked to the caregivers when the children's weights are being recorded during the screening. If the weighing is done first, you must go household to household to ask the wealth ranking questions again. Thus, do not make this mistake and make sure you conduct the wealth ranking exercise before conducting a nutrition assessment.

It is important to do this exercise with 5 or 7 community members because they know how to define the poor households in their community. They must agree with the final criteria that defines families as poor or non-poor. Only then, will they later believe that there are poor households with healthy children (PD families). An odd number of community members are needed for this activity to make the voting on the criteria simpler.

If people share food, resources and income in nuclear units, then wealth ranking is done by household. If the food, resources and other income are shared across multiple, related households, then wealth ranking must consider the extended family.

Explain that it is important to do this exercise with community members because they know how to define the poorest in their community. They must agree with the final assignment of families in order to believe later that there are PD families.

15 Min

4. Practicing Wealth Ranking

Divide participants into two groups, each representing a village. Included are leaders, representatives of different ethnic groups, women and men, and all socio-economic classes. Facilitators represent the Healthcare workers who will lead a 'village' through a wealth-ranking exercise. Explain that we want to learn how some families with few resources keep their children healthy. Community members know which families have few resources and which are better off. We would like their help to identify the poor families.

Choose two different versions of an object, for example, two different stones. Lay the stones out on the ground with some distance between them. Explain that one stone represents the non-poor families and the second represents the poorest people. Have everyone look at the non-poor stone and reflect silently on which families in their community would go with this stone. Ask participants how they know these families are not poor. What do these families have that families in the poor category (stone) don't have? List all the characteristics. Prompt them to think about housing, farm implements, livestock, clothing, transport, occupations, amount of land owned, and so on. Does everyone agree that families in the poor category don't have these characteristics?

Now focus attention on the second stone. Remind participants that these are the poorest people. What don't they have that the non-poor families have? What income do they have? What about their houses? Jobs? Clothing? Do they own any livestock? What kind and how many? It may be necessary to add a third stone if the participants say there is another group which is even poorer. If so, ask for characteristics of those people.

To validate the criteria, ask the participants to think silently about the poorest family they know. Do these families meet the criteria for poorest that were just agreed upon? Verify the criteria.

Mention that many times, community members only think of the poorest families when defining the 'poor' households. However, the difficult role is to mediate the wealth ranking activity so a line can be drawn between the poor vs. non-poor households without a gap between the two classifications.

For example, if the community members say you are 'non-poor' if you have 10 goats, but poor if you have 0 goats, where does that leave a household if they have 1-9 goat? Thus, it's better to define a poor household and anything above can be considered 'non-poor'. For example, if the community members say even a 'poor' household can have up to 1 goat, the criteria for non-poor would become >1 goat.

9.1. Handout: Case Examples for Wealth-Ranking Exercise

To be classified as poor, a family must meet at least three of the following criteria

- Lives in a one-room house
- House made of mud and sticks
- House has dirt or cracked cemented floor
- No regular salary
- No more than one person in the family working.

Handout 9.1: Case Examples for Wealth-Ranking Exercise

Child Name and family name	Child's age in months	Wealth ranking information for family	Wealth ranking
Judy(F) Henry/Joyce	31	Both parents work as vendors, rent a one-room house, dirt floor	
Dan (M) Rehema/David	12	Single mother, works periodically, rents one room, bamboo, dirt floor	
Nick(M) Owami/Esther	30	Father works on salary, rent two rooms, two families in house,	
Peter (M) Cyrus/Wangui	18	Father works part time, mother works part time, rent block house	
Liz(F) Ann/Henry	6	Father is temporary taxi driver, owns bamboo house, dirt floor	
Kuria (M) Beatrice	31	Mother works as servant on regular salary, rent two-room father has small shop	

Case Examples for Wealth-Ranking Exercise ANSWER

Handout 9.2.: Case Examples for Wealth-Ranking Exercise ANSWER

To be classified as poor, a family must meet at least three of the following criteria:

- Lives in one-room house
- House made of mud and sticks
- House has dirt or cement floor
- No regular salary
- No more than one person in the family working.

Child Name and family name	Child's age in months	Wealth ranking information for family	Wealth ranking
Judy(F) Henry/Joyce	31	Both parents work as vendors, rent a one-room house, dirt floor	Poor
Dan (M) Rehema/David	12	Single mother, works periodically, rents one room, bamboo, dirt floor	Poor
Nick(M) Owami/Esther	30	Father works on salary, rent two rooms, two families in house,	Non-Poor
Peter (M) Cyrus/Wangui	18	Father works part time, mother works part time, rent block house	Non-Poor
Liz (F) Ann/Henry	6	Father is temporary taxi driver, owns bamboo house, dirt floor	Poor
Kuria (M) Beatrice	31	Mother works as servant on regular salary, rent two-room father has small shop	Non-Poor

Handout 9.3: Wealth-Ranking for PD Hearth

County.....Subcounty..... Ward.....Link Facility..... Community Unit:.....village name..... Landmark.....	
WEALTH STATUS	WEALTH CLASSIFICATION CRITERIA
POOR	
NON-POOR	

Session Objectives

By the end of this session, participants will be able to

1. Explain the importance of and methods for conducting the nutrition baseline and ongoing monitoring activities.
2. Describe the methods to measure child growth recommended for use within PD Hearth activities and mention important issues for proper weighing technique.
3. Use Excel-based PD Hearth database to calculate Z-scores.

Refer to Handout 29.7: User Guide for the PD Hearth Excel Database

Each participant will take MUAC and weight of at least 1 child.

For further reading, refer to CORE PD Hearth Guide: pg.57-66, 70-83

Preparation

- Gather sub-county or ward and community health unit nutrition information.
- Obtain mother and child health handbook (MOH 216) one for each participant.
- Print Handout 10.1, 10.2, 10.3 and 10.4
- Review 'Training of PD Hearth Volunteers Curriculum' before training – use Anthropometric Job Aids if necessary.
- Refer to Handout 29.7: User Guide for the PD Hearth Excel Database
- Each participant will take MUAC and weight of at least 1 child.

Materials

- Mother & Child Health Handbook (MOH 216)
- Handout 10.1: Case Study of Kangakipur community's Initial Nutrition Assessment
- Handout 10.2: WHO Weight-for-Age Reference Table
- Handout 10.3: Child Disability Screening Questions for PD Hearth
- Handout 10.4: Initial Assessment Worksheet
- Kenyan national guideline for integrated management of acute malnutrition
- Training of PD Hearth Volunteers Curriculum and its job aids for taking anthropometric
- Blank flip charts
- Soft copy of Excel-based PD Hearth database
- Weighing Hanging scales and weighing pants standing scales
- Childs MUAC tapes
- Pencils
- Recording chart
- Weight monitoring charts, Anthropometric tables, and attendance charts (these will be used in the Hearth sessions)
- A picture of a healthy child and a picture of a malnourished child
- Sheets of flip-chart paper, cut or torn in half, one for each group of three or four volunteers.
- Paper cut into a circle, one for each volunteer

Situational Analysis – Nutritional Assessment (STEP 3)

STEPS

1. Initial nutritional assessment and wealth ranking are used to identify the PD, non-PD, and ND households. It is important to identify these households in order to conduct PDIs. During the PDI, it is strongly recommended to visit 4 PD households, 2 ND households and 2-4 non-PD households.

Ask what the three different forms of malnutrition are. How are they assessed? Write the words for classifying malnutrition and the abbreviations on a flip chart and be sure participants understand the definitions.

- Underweight is measured by weight-for-age (WA)
- Stunting is measured by height/Length-for-age (H/LA)
- Wasting is measured by weight-for-height/Length (WH/L)

Show the growth chart in the mother-child handbook.

Methods for determining age: Ask caregivers for the mother & child handbook. If they do not have them, work with the community to establish a calendar of locally important events to help determine when each child was born.

Why PD Hearth uses weight-for-age: Weight-for-age is the easiest measure to take accurately and is the most sensitive to change. It is also the measurement that most health facilities use so both health workers and caregivers are familiar with it.

The goal of PD Hearth is to quickly rehabilitate children who are malnourished according to weight-for-age measurements. Weight-for-age is used to determine which children are well-nourished. We will be able to learn from those families what they do to keep their children growing well.

Weight-for-age is also used to determine which children are malnourished. All children 6-59 months who are at risk, moderately or severely underweight (despite the house hold's wealth ranking or socioeconomic status) will enter the PD Hearth sessions. Priority should be given to children that are poor and severely underweight.

Each participant should have a copy of a growth chart. Ask what measurement is used for these growth charts (weight-for-age). Look at the growth chart. How can you tell a child is growing well? (He or she is in between the green lines)

During the Hearth sessions, children need to achieve ‘catch-up growth’.

What is catch-up growth?

Catch-up growth occurs when a child who is malnourished gains weight at an accelerated rate so that he or she is ‘catching-up’ to the normal rate of growth line for his or her age.

Draw a large growth chart on a flip chart. Draw a line for a malnourished child’s growth and then a sharp spike up in the line when the child enters the Hearth session. The aim is to achieve this fast growth in order to boost the child into being well nourished. It is also important for children to continue growing well after the Hearth sessions by having the caregiver continue the practices learnt in the Hearth sessions. A child may not recover completely from malnutrition in one Hearth session, especially if he or she was moderately or severely malnourished. The child may need to repeat Hearth sessions.

5 Min

2. Outline the background information for the nutritional assessment used in PD Hearth based on the following questions:

What determines the target age group? Only include children older than six months

(Before that, exclusive breastfeeding is strongly promoted); the upper limit on the target is 59 Months, depending on ‘anticipated load’ and budget. However, special emphasis should be placed on children 6–35 months of age because that is the period when the greatest impact can be made. Age determination can be identified using a growth chart, birth certificate or calendar of events.

Why are growth-monitoring data not sufficient? Growth-monitoring data does not capture all children, and those most likely excluded are the poorest or those from the most at-risk families, including children with disability who may not be brought for growth monitoring sessions.

Where does growth monitoring fit into Hearth? Growth monitoring may help raise awareness of adequate growth and is an ongoing monitoring tool.

The growth-monitoring programme serves to identify additional malnourished children over time and to support maintenance of rehabilitated children. This very important element is often overlooked in PD Hearth implementation.

What about severely malnourished children and Hearth? Children who are severely malnourished with complications such as bilateral pitting oedema or other health complications need more specialized medical treatment. These children should be referred to the health facility. In case IMAM services are unavailable to manage severely malnourished children without complications, considerations can be made for the children to be admitted to the Hearth sessions. Refer to the Kenyan National Guideline for Integrated Management of Acute Malnutrition.

Situational Analysis – Nutritional Assessment (STEP 3)

20 Min

3. Checking for Bilateral pitting oedema

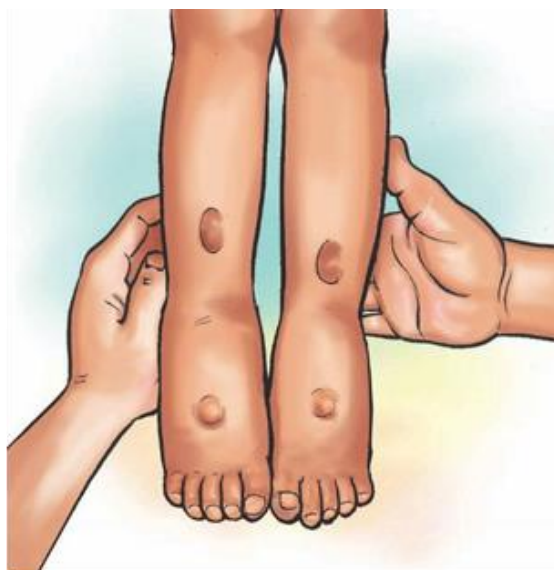
Bilateral pitting oedema is a clinical manifestation of acute malnutrition caused by an abnormal infiltration and excess accumulation of fluid. To determine the presence of oedema,

Step 1: Press both feet with thumbs as shown below; Apply normal thumb pressure on both feet for three seconds (count the numbers 101, 102, 103 in order to estimate three seconds without using a watch).

Step 2: Release pressure from feet; If a shallow print persists on both feet, then the child has nutritional oedema (pitting oedema)

Step 3: If there is oedema present on the feet, perform the same test described in step 2 but now move up to the lower legs.

Step 4: Move up to the upper body and/or face. If there is oedema present on the lower legs, perform the same test described in step 2 but now move up to the upper body and/or the face Step 3 and Step 4 are performed to be able to grade or classify the level of nutritional oedema the child is suffering from (if present) Depending on the presence of oedema on the different levels of the body, it is presented as follows



NOTE

Children with oedema (any grade) are at a high risk of dying and should be immediately referred to a health facility They should not be enrolled in PD Hearth

Figure 10.1 An illustration of a child with oedema

Source: <https://iycf.advancingnutrition.org/>

5 Min

4. Weighing Techniques

Refer to the National IMAM guidelines on how to take anthropometric measurements. Briefly discuss types of scales and weighing issues (calibration, disturbing, disrobing children, and alternatives to the sling), drawing on participants' experiences.

Context of a Nutrition Assessment:

When you do a nutrition assessment, it gets very hectic because you are going to have over 100 caregivers with their young children standing in line waiting to be weighed. They want to go home because it is hot or cold outside, children are crying, everyone is hungry, and caregivers must go back to work or home to cook. So, they want to get weighed as quickly as possible and, a lot of times, this makes the staff and volunteers very disoriented.

We can prevent poor data collection if we are well organized from the start. We need to set up 3 or more different stations and have a person at each station.

1) Weighing station:

At this station, children are weighed. The person in charge of the weighing station will ask the caregiver to undress the child. Little pieces of paper should be prepared beforehand. Weigh the child and record the weight on the little piece of paper. Weight must be measured to the nearest 1 decimal place. For example, 12.1kg and not 12kg. Then give the piece of paper with the weight information to the caregiver and tell her/him to take the child to the next station.

2) MUAC station:

At that station, the person in charge will be someone sitting down. They will have another seat for the caregiver to sit with the child. Use the MUAC tape to measure the child's MUAC and indicate the number to the nearest 1 decimal place again or the colour on the same piece of paper that has the weight information. Ask the caregiver to take the piece of paper to the next station.

3) Recording station:

At the recording station, caregivers will be asked sensitive questions to identify the wealth ranking of the household along with asking disability screening questions to identify children with disabilities and recording child's weight. The caregiver will give the piece of paper with the child's measurement to the recorder. The recorder will enter this information in the MCH handbook (MOH 216) and MOH 511 Register. Plotting of the child's weight should be done carefully ensuring birth weight is recorded on the first vertical line and subsequent months on the age-specific vertical line. The recording station should be a bit further away or isolated from everyone to allow caregivers to feel comfortable with answering sensitive questions freely. The recorder/interviewer at this station should have a wealth ranking checklist, the wealth ranking criteria and needs to know the 5 or 7 wealth ranking questions.

Out of the 5 or 7 questions, if majority of the criteria fall under poor (for example, 3 out of the 5 criteria) then the household will be considered 'poor'. If 3 or more criteria out of 5 falls under non-poor, then the household will be considered as 'non-poor' in the register.

Situational Analysis – Nutritional Assessment (STEP 3)

When you are asking questions to the caregivers, make sure you ask for all the information you need to re-identify the household for the PDI, such as the name of the caregiver, the name of the father, phone number, address, etc. Get the community map and ask the caregiver to identify where their household lives on that map and then indicate the child's ID number on the map with a little house and add a mark where all children under 5 years live.

The child that you are recording may be a PD, non-PD, or ND household but we want to revisit all 3 types of households so this household might be selected as one of the households we want to revisit during the PDI. Also, make sure you record the birth order of the child because firstborn children are not identified as PD children (more details about this will be covered later).

10 Min

5. Calculating Nutritional Status of Children

Option 1

Distribute a copy of the Handout 10.1: Case Study of Kangakipur community Initial Nutrition Assessment Monitoring Form. Read the wealth ranking criteria together as a group and discuss if needed. Then ask the participants to fill in all the columns on the monitoring form, except the 'underweight status' column for Child 1 and 2. Use the provided information on the post-it notes and answers from the interview with the caregivers. Read out answers for Child 1 and 2, as participants check their results (answers can be found on the second page of Handout 10.1). If computers are available, teach participants to use Excel-based PD Hearth database to calculate Z-scores and obtain the nutritional status of children Handout 29.7: User Guide for the PD Hearth Excel Database. The participants can then fill out the 'underweight status' column. If computers are not available, move on to the next step.

Option 2

Distribute Handout 10.2. Explain that another way to calculate weight-for-age is by using the WHO weight-for-age reference tables (Handout 10.2), which may be easier to use than growth charts for volunteers. Have the participants find the underweight status colour for Child 1 and Child 2 by using the Handout 14.2, gender, age in months, and weight data.

- 1) Select the correct table to use depending on the child's gender.
- 2) Look for the age in months on the left most column.
- 3) Then in the row of the age, go horizontally on the table to find in which colour range the child's weight falls under. For example, if the child's weight is 12.3kg, and this weight falls between green (13.1kg) and yellow (11.7kg), the child is considered 'green'. However, if the child weighs 11.5kg, then the child would be 'yellow' for underweight status. You must use the colour on the left column if the weight falls between a range.

10 Min

6. Disability Screening Questions during Nutrition Assessment

Please go through the disability screening questions in Handout 10.3 for children with disability to fill in the columns:

- Child with Disability (Y/N)
- Child with Disability has feeding difficulties (Y/N)
- Child with Disability has poor appetite or eats less (Y/N)
- Indicate with an 'N/A' if child has no disability for the latter 2 columns.

If a child with disability is identified during the nutrition assessment, please have the caregiver indicate in the community map where his/her home is located and indicate the child's name and ID number on or beside the symbol as the households of children with disability should have already been marked with a unique symbol from the community mapping exercise. At the end of the nutrition screening, if on the community map, there are still some children with disability who were not screened, conduct a household visit to ensure all children with disabilities are screened for their weight and MUAC.

Refer all children to the health center during the initial assessment screening who have either: **'Red' MUAC or A disability AND difficulty eating/drinking due to his/her disability**

7. Counseling Caregivers on Children's Weight

Divide into pairs and practice counselling the caregiver about the growth of the child. Remember to be encouraging, to explain how the child is growing, to ask what the child has been like at home. Agree on one thing the caregiver could do at home to help the child grow well. Make sure each person has a chance to practice each role. Ask one or two pairs to role play their scenario for the whole group. Discuss the role plays together. Distribute Handout 10.4. Explain that this will be the handout we use when we go out to the field to collect the community Nutrition Assessment Data. Note: Point out that the community wealth ranking exercise must be completed before weighing of children begins. This will enable completion of wealth ranking of the households which help in identification of PD and Non-PD households.

Case Study of Kangakipur community's Initial Nutrition

Handout 10.1: Case Study of Kangakipur community's Initial Nutrition**Assessment**

You are conducting a situational analysis in the fictional community 'Kangakipur. A wealth ranking was conducted with 5 community members. The description of the poor and non-poor families is shown in the chart to the left. You are in the middle of conducting a nutrition assessment and you are the recorder. Record the information of two children into the register along with the wealth status. For each child we have a piece of paper with the anthropometric measurements and additional information found in their health cards. Please use the information gathered during the nutrition assessment on the piece of paper, health card and interview with care givers to fill in the registry below for Baby Brian Baraka and Rose Blessings.

Date: 10th July District:

Turkana Community:

Kangakipur

Wealth Ranking	Wealth Ranking Criteria
Poor	Live in 1-room house House made of bamboo House has dirt floor No regular salary Only 1 person in the family
Non-Poor	More than 1 room house Cement block house Cement or tile floor Regular salary More than 1 person in the family working

Baby Brian Baraka

9.6 Kgs

12.4 cm

Male

Rose Blessings

9.2kgs

12.1cm

Female

Child No.	Date of Survey	Child's Name	Caregiver's Name	Father's Name	DOB (dd/mm/yyyy)	Age (months)	Gender (M/F)	Birth Order	Weight (kg)	MUAC (cm)	Nutrition Status (Colour)	Wealth Rank	Child is Disabled (Y/N)	If disabled, child has feeding difficulties? (Y/N)	If disabled, child has poor appetite or eats less (Y/N)
1	10/07/2019	Rose Blessings													
2	10/07/2019	Brian Baraka													

Handout 10.1: Correct Answer

Child No.	Date of Survey	Child's Name	Caregiver's Name	Father's Name	DOB (dd/mm/yyyy)	Age (mo.)	Gender (M/F)	Birth Order	Weight (kg)	Nutrition on Status (Colour)	MU AC (cm)	Wealth Rank	Child is Disabled (Y/N)	If disabled, child has feeding difficulties? (Y/N)	If disabled, child has poor appetite or eats less (Y/N)
1	10/07/2019	Rose Blessings	Leah		13/06/2018	13	F	1	9.2	Green	12.1	Poor	N	N/A	N/A
2	10/07/2019	Brin Baraka	Margret Ashanti	Steven Baraka	12/12/2016	31	M	3	9.6	Orange	12.4	Non-Poor	N	N/A	N/A

Weight-for-age Standard Table

Handout 10.2: Weight-for-age Standard Table

1 OF 2

Boys and Girls 0–59 months (WHO) (With 'At Risk' status) *											
BOYS						GIRLS					
Sex	Age (mon)	Green (Normal)	Yellow (At Risk)	Orange (Moderate)	Red (Severe)	Sex	Age	Green (Normal)	Yellow (At Risk)	Orange (Moderate)	Red (Severe)
M	0	3.3	2.9	2.5	2.1	F	0	3.2	2.8	2.4	2.0
M	1	4.5	3.9	3.4	2.9	F	1	4.2	3.6	3.2	2.7
M	2	5.6	4.9	4.3	3.8	F	2	5.1	4.5	3.9	3.4
M	3	6.4	5.7	5.0	4.4	F	3	5.8	5.2	4.5	4.0
M	4	7.0	6.2	5.6	4.9	F	4	6.4	5.7	5.0	4.4
M	5	7.5	6.7	6.0	5.3	F	5	6.9	6.1	5.4	4.8
M	6	7.9	7.1	6.4	5.7	F	6	7.3	6.5	5.7	5.1
M	7	8.3	7.4	6.7	5.9	F	7	7.6	6.8	6.0	5.3
M	8	8.6	7.7	6.9	6.2	F	8	7.9	7.0	6.3	5.6
M	9	8.9	8.0	7.1	6.4	F	9	8.2	7.3	6.5	5.8
M	10	9.2	8.2	7.4	6.6	F	10	8.5	7.5	6.7	5.9
M	11	9.4	8.4	7.6	6.8	F	11	8.7	7.7	6.9	6.1
M	12	9.6	8.6	7.7	6.9	F	12	8.9	7.9	7.0	6.3
M	13	9.9	8.8	7.9	7.1	F	13	9.2	8.1	7.2	6.4
M	14	10.1	9.0	8.1	7.2	F	14	9.4	8.3	7.4	6.6
M	15	10.3	9.2	8.3	7.4	F	15	9.6	8.5	7.6	6.7
M	16	10.5	9.4	8.4	7.5	F	16	9.8	8.7	7.7	6.9
M	17	10.7	9.6	8.6	7.7	F	17	10.0	8.9	7.9	7.0
M	18	10.9	9.8	8.8	7.8	F	18	10.2	9.1	8.1	7.2
M	19	11.1	10.0	8.9	8.0	F	19	10.4	9.2	8.2	7.3
M	20	11.3	10.1	9.1	8.1	F	20	10.6	9.4	8.4	7.5
M	21	11.5	10.3	9.2	8.2	F	21	10.9	9.6	8.6	7.6
M	22	11.8	10.5	9.4	8.4	F	22	11.1	9.8	8.7	7.8
M	23	12.0	10.7	9.5	8.5	F	23	11.3	10.0	8.9	7.9
M	24	12.2	10.8	9.7	8.6	F	24	11.5	10.2	9.0	8.1
M	25	12.4	11.0	9.8	8.8	F	25	11.7	10.3	9.2	8.2
M	26	12.5	11.2	10.0	8.9	F	26	11.9	10.5	9.4	8.4
M	27	12.7	11.3	10.1	9.0	F	27	12.1	10.7	9.5	8.5
M	28	12.9	11.5	10.2	9.1	F	28	12.3	10.9	9.7	8.6

Weight-for-age Standard Table

DAY 2

2 OF 2

Weight-for-age Standard Table – Boys and Girls 0–59 months (WHO) (With ‘At Risk’ status)											
BOYS						GIRLS					
Sex	Age (mon)	Green (Normal)	Yellow (At Risk)	Orange (Moderate)	Red (Severe)	Sex	Age	Green (Normal)	Yellow (At Risk)	Orange (Moderate)	Red (Severe)
M	29	13.1	11.7	10.4	9.2	F	29	12.5	11.1	9.8	8.8
M	30	13.3	11.8	10.5	9.4	F	30	12.7	11.2	10.0	8.9
M	31	13.5	12.0	10.7	9.5	F	31	12.9	11.4	10.1	9.0
M	32	13.7	12.1	10.8	9.6	F	32	13.1	11.6	10.3	9.1
M	33	13.8	12.3	10.9	9.7	F	33	13.3	11.7	10.4	9.3
M	34	14.0	12.4	11.0	9.8	F	34	13.5	11.9	10.5	9.4
M	35	14.2	12.6	11.2	9.9	F	35	13.7	12.0	10.7	9.5
M	36	14.3	12.7	11.3	10.0	F	36	13.9	12.2	10.8	9.6
M	37	14.5	12.9	11.4	10.1	F	37	14.0	12.4	10.9	9.7
M	38	14.7	13.0	11.5	10.2	F	38	14.2	12.5	11.1	9.8
M	39	14.8	13.1	11.6	10.3	F	39	14.4	12.7	11.2	9.9
M	40	15.0	13.3	11.8	10.4	F	40	14.6	12.8	11.3	10.1
M	41	15.2	13.4	11.9	10.5	F	41	14.8	13.0	11.5	10.2
M	42	15.3	13.6	12.0	10.6	F	42	15.0	13.1	11.6	10.3
M	43	15.5	13.7	12.1	10.7	F	43	15.2	13.3	11.7	10.4
M	44	15.7	13.8	12.2	10.8	F	44	15.3	13.4	11.8	10.5
M	45	15.8	14.0	12.4	10.9	F	45	15.5	13.6	12.0	10.6
M	46	16.0	14.1	12.5	11.0	F	46	15.7	13.7	12.1	10.7
M	47	16.2	14.3	12.6	11.1	F	47	15.9	13.9	12.2	10.8
M	48	16.3	14.4	12.7	11.2	F	48	16.1	14.0	12.3	10.9
M	49	16.5	14.5	12.8	11.3	F	49	16.3	14.2	12.4	11.0
M	50	16.7	14.7	12.9	11.4	F	50	16.4	14.3	12.6	11.1
M	51	16.8	14.8	13.1	11.5	F	51	16.6	14.5	12.7	11.2
M	52	17.0	15.0	13.2	11.6	F	52	16.8	14.6	12.8	11.3
M	53	17.2	15.1	13.3	11.7	F	53	17.0	14.8	12.9	11.4
M	54	17.3	15.2	13.4	11.8	F	54	17.2	14.9	13.0	11.5
M	55	17.5	15.4	13.5	11.9	F	55	17.3	15.1	13.2	11.6
M	56	17.7	15.5	13.6	12.0	F	56	17.5	15.2	13.3	11.7
M	57	17.8	15.6	13.7	12.1	F	57	17.7	15.3	13.4	11.8
M	58	18.0	15.8	13.8	12.2	F	58	17.9	15.5	13.5	11.9
M	59	18.2	15.9	14.0	12.3		59	18.0	15.6	13.6	12.0
M	60	18.3	16.0	14.1	12.4		60	18.2	15.8	13.7	12.1

Child Disability Screening Question for PD Hearth

Handout 10.3: Child Disability Screening Question for PD Hearth

Screening Questions	Concerning Answer	Reason for Concern	Next Step/Referral
<p>1. Observation: Does the child have any physical disabilities?</p> <p>Note: 'Physical disability' can include impairment in crawling, walking or having physical deformities.</p>	Yes	If yes to this question, the child has a higher probability of being malnourished	If ' Yes ', indicate the child as 'Y' for disabled in the overall monitoring register (Handout 14.4), and skip to Question 4. If ' No ', then indicate the child as 'N' for disabled in Handout 14.4, and continue to Question 3.
<p>2. Does your child have any difficulties with the following?</p> <p>I) Children <24 months of age:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Seeing <input type="checkbox"/> Hearing <input type="checkbox"/> Crawling (for children > 8 months of age) <input type="checkbox"/> Picking up small objects with his/her hand <input type="checkbox"/> No difficulties at all <p>II) Children ≥24 months of age</p> <ul style="list-style-type: none"> <input type="checkbox"/> Seeing <input type="checkbox"/> Hearing <input type="checkbox"/> Walking <input type="checkbox"/> Picking up small objects with his/her hand <input type="checkbox"/> Understanding you Speaking <input type="checkbox"/> Playing <input type="checkbox"/> Behavioral issues <input type="checkbox"/> No difficulties at all 	Yes, to any of the difficulties	the child is most likely suffering with a disability. Children with disabilities have a higher probability of being malnourished and being excluded in community activities and interventions.	<p>If 'Yes', indicate the child as monitoring register (Handout 14.4), and continue with Question 3.</p> <p>If 'No', then indicate the child as 'N' for disabled in the overall monitoring register (Handout 14.4), end this Questionnaire and thank the caregiver for their time.</p>
<p>3. Compared to other children his/her age, does your child have to his/her disability?</p> <p>Note: frequently chokes on food or liquids.</p>	Yes	Children with disabilities are more likely to be malnourished.	If Question 3 is ' Yes ', refer child to health facility or district hospital for therapy. Inform the caregiver that the child will be referred to the PDH program after receiving some therapy. If answer is 'No', go to Question 4.
<p>4. Compared to other children his/her age, does your child have a poor appetite (does not like to eat)?</p>	Yes	Poor appetite for food indicates a child who is unwell with a higher chance of being malnourished	If Question 3 is 'No', but 'Yes', refer the child to PDH programming.
<p>5. Does your child eat less than other children his/her age?</p>	Yes	A child who eats less than other children are more likely to be malnourished	

Handout 10.4: Initial Assessment Worksheet

County Sub County

Ward Link Facility

Community Unit: village name

Landmark

No.	Child's Name	Sex (M/F)	Caregiver's Name	Caregiver's Phone number	Home location	Land mark	Child in TSFP/ OTP (Yes/No)	DOB (dd/mm/yyyy)	Age (Months)	Birth Order	Oedema (Y or N)	Weight (kg)	MUAC (cms)	Wealth Ranking (Very Poor, Poor, Non-Poor)	Child is Disabled (Y/N)	Child with disability has feeding difficulties. (Y/N)	Child with disability has poor appetite or eats less (Y/N)

Session Objectives:

By the end of this session, participants will be able to:

1. Describe seasonal calendar and market survey in relation to PD hearth.
2. Identify potential sources of information, and know how to collect information through seasonal calendar, and market surveys.
3. Identify the standards for and challenges of conducting a seasonal calendar and market survey.

For further reading, refer to **CORE PD Hearth Guide: pg.62-75**

Preparation

- Print Handout 11.1, 11.2, 11.3 and 11.4
- Soft copy of Situational Analysis Excel template

Materials

- Handout 11.1: Seasonal Calendar for PD Hearth
- Handout 11.2: Market Survey for PD Hearth (Cost Variance & Quantity Variance)
- Handout 11.3 Seasonal Calendar for Common Diseases and Illnesses in the Community
- Handout 11.4: Focus Group Discussion Matrix for PD Hearth
- Blank flip charts and coloured markers 60 stones or leaves or other common material to use as markers.
- Soft copy of Situational Analysis Excel template

STEPS

10 Min

1. Seasonal calendar

The seasonal calendar is useful for mobilizing the community and creating ownership of the program by involving the community in the program design. The seasonal calendar helps implementers understand what types of foods are available during various seasons and what sicknesses and diseases are common in certain seasons. By understanding what foods are available during certain seasons this information can be taken into account when conducting market survey and in the menu design. The sickness and disease information could be used to ask questions during the PDI especially to the PD households and how they seek health care services or how they treat children for these sicknesses or illnesses at home.

Group Activity

- Demonstrate how to develop a seasonal calendar showing what foods are available to families throughout the year.
- Ask the participants if they know the food groups (for example, grain and grain product, nuts and seeds, Vitamin A rich fruits and vegetables, flesh foods, dairy etc).
- For each food group list the foods that the community grows. Do one food group at a time.
- Mark a grid of 12 months on the ground. Down on the left side, put a pile of samples of each of these foods (cereals: maize, sorghum, millet).
- Give the group a pile of 60 stones. Ask the group to distribute the stones to show the proportion of households with access to the different food items during the year. For example, if no families have a crop in certain months, there are no stones in those squares; if a food is available to families at all times of year in the same quantity, then each month would have an equal number of stones.
- Do this for all cereal crops and then for each of the other food groups.
- Create the seasonal calendar with the food groups the county uses. Make sure the results are recorded on a piece of paper after drawing on the ground.
- Distribute Handout 11.1 and advise to use it to record the results. Write out the food items commonly used in the county. Indicate with an 'x' as to when they are in high season for the various months.
- Distribute Handout 11.2 and advise to use it to record the common diseases that exist. Indicate with an 'x' as to when they are in high season for the various months.

Seasonal Calendar of Food

Handout 11.1: Seasonal Calendar of foods

DATE OF SURVEY.....COUNTY..... SUB COUNTYWARD..... LINK FACILITY..... VILLAGE NAME..... COMMUNITY UNIT.....													
		Months (WHEN MOST AVAILABLE)											
FOOD GROUPS	NAME OF FOOD ITEM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Grains, grain products and other starchy foods													
Legumes, Pulses, seeds and nuts													
Flesh foods													
Dairy and dairy products													
Eggs													
Vitamin A rich fruits and vegetables													
Other fruits and													

Handout 11.2: Seasonal Calendar for Common Diseases and Illnesses in the Community

DATE OF SURVEY COUNTY..... SUB COUNTY

WARD..... LINK FACILITY..... VILLAGE NAME.....

COMMUNITY UNIT.....

COMMON DISEASES IN CHILDREN UNDER FIVE YEARS	INDICATE NUMBER AFFECTED											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Note: You could fill the number of cases if you can get data from health records or fill the form by putting an X when diseases occur

STEPS

5 Min

1. Market Survey

The market survey is used to identify the approximate cost and variability in cost or quantity of certain foods during different seasons. This information can be used to design a low cost and affordable Hearth menu. It can also help in the menu design so foods that are easily accessible and available are included in the Hearth meal. It is recommended to conduct the market survey during different seasons. For example, if there is a rainy season and a dry season, a market survey should be conducted once during the rainy season and once during the dry season. The nutrient-dense, low-cost foods available during the dry season could be used for Hearth menu A and the nutrient dense, low-cost foods available during the rainy season could be used for Hearth menu B.

A market survey is carried out by visiting the market where the community buys its food and recording information in Handout 11.3

Handout 11.3: Market Survey for PD Hearth - Quantity and Cost Variance Tool

DATE OF SURVEYCOUNTY.....

SUB COUNTYWARD.....

LINK FACILITY.....

VILLAGE NAME.....

COMMUNITY UNIT.....

RAW FOOD		Season (Months)		Cost Variance (Ksh)			
Food Item	Smallest Quantity Purchased	High (plenty of food)	Low (scarcity of food)	Cost during High Season*	Cost per 100g during high	Cost during Low season	Cost per100g during low season*

* NOTE: Do not fill out these columns while out in the field/market. Calculate and fill out these columns when you are back at the office or training site.

Focus group discussions

Focus group discussions are conducted to help uncover perceptions and attitudes, beliefs, norms, behaviors, opinions, and ideas on childcare, child feeding, hygiene, and health seeking. Separate FGDs are conducted to ensure diversity of opinions. These will be groups of mothers, fathers, and elderly women if applicable. The mothers' group will be approximately 7 to 10 participants that will include 2-3 mothers with children from each target age group: 0 to 5 months, 6 to 11 months, 12 to 23 months, and 1 mother from the age group 24 to 59 months. A smaller group of 4-5 participants will be mobilized for fathers and elderly women (grandmothers). Results of the focus group discussion are recorded in handout 11.4

Handout 11.4: Focus Group Discussion Matrix for PD Hearth

Date _____ Group Composition: (Men/Women or Grandmothers) <i>(Tick appropriately)</i>		COUNTY..... SUB COUNTY..... WARD..... LINK FACILITY..... VILLAGE NAME..... COMMUNITY UNIT.....			
Child's age and health status	What foods are given, including breastmilk and liquids (name or pictures)	What amount is given (Bowl, cup, fist)	How many times a day are children offered something to eat (meals	What foods should not be given to young children?	Why?
Newborn					
0 – 5 months					
6-8 months					
9– 11 months					
12–23 months					
≥24 months					
When child is sick					

Focus Group Discussion Matrix for PD Hearth

Discuss together the expected outcomes of situational analysis:

- Community involvement and commitment
- Learn the common illnesses, health services and practices, and whether any disability services exist and who provides the services (e.g., Organizations led by PWD)
- Identify the households with children with disabilities to ensure they are included
- Identify if there is stigma towards children with disabilities within households, and at community-level
- Learn the normal child feeding practices and be able to highlight existing good or best practices
- Learn what harmful practices affect child health and nutrition
- Learn the barriers that prevent children with disabilities from accessing health and nutrition services
- Learn about the community's understanding of causes of malnutrition in its children
- Learn about food availability and affordability.
- Tell participants that the next step in community mobilization is to give feedback on all this information to the community. This will be discussed later in the course.

Session objectives

By the end of this session, participants will be able to:

1. Describe and use various tools used for field work during situational analysis
2. Assemble the questionnaires and tools for collecting data in the community in various ways.

Field Preparation Required for Situation Analysis

The health care workers will need to prepare communities for this activity. Ideally, these will be new communities starting PD Hearth for the first time. Select participants from one village for every workshop.

With existing community health promoters and community leaders, conduct a wealth ranking exercise. Using the wealth ranking information, conduct a nutrition baseline survey of at least 20 children aged of 6 and 59 months, selected randomly, and classify the children who were weighed according to their family's wealth ranking. This information must be ready before the start of the training. The health care workers need to organize with the community for a field visit on the third day of the training. Health care workers can organize a meeting with community leaders prior to the focus group discussion with caregivers whereby participants are informed of visiting the selected facilities.

- **Wealth Ranking:** Identify 5 or 7 community members (diverse group of men and women inclusive of two caregivers with children with disability) prior to the field work. The community members identified should be conversant with the determinants of wealth in the community.
- **Initial Nutrition Assessment:** Mobilize the required personnel (e.g., nutritionists, CHPs, etc.) to help weigh children on the day of assessment and is required that the CHPs to have communicated to the mothers/ care givers to bring Mother Child handbook during the assessment. Weigh all children 0 – 59 months of age in the community (you could mobilize the caregivers to one site/location or to several decentralized sites/locations in the community to increase coverage and provide any other services on a specific day and time).
- **Community/Social Mapping:** Identify 4 to 5 community leaders (men and women) and 1 - 2 CHPs to be involved in the exercise.
- **Seasonal Calendar/Transect Walk:** It is good to have 1 or 2 CHPs who could help to navigate in the village/community.
- **Market Survey:** This is conducted by the team of health care workers with the assistance of 1-2 CHPs and 1 community member. Find out when the main market day is and keep in mind when planning the agenda

Preparing for Situational Analysis Field Visit

Materials

- Weighing scales
- Childs MUAC tapes
- Length/ Height board
- MOH tools (CWC register MOH 511, tally sheet – MOH 704 & referral forms – MOH 100)
- Weight for Age reference Charts
- Flip chart with blank papers
- Print Handouts
- Handout 11.1: Seasonal Calendar of foods
- Handout 9.3: Handout: Wealth Ranking
- Handout 11.2 Seasonal Calendar for Common Diseases and Illnesses in the
- Community Handout 10.3: Child Disability Screening Questions for PD Hearth
- Handout 11.3 Market Survey for PD Hearth - Quantity and Cost Variance Tool
- Handout 11.4: Focus Group Discussion Matrix for PD Hearth

For further reading refer CORE PD/ Hearth Guide: pp 62–112

STEPS

5 Min

1. Explain to the workshop participants that situational analysis will be conducted in actual communities the following day. Explain that the health care workers have already weighed children and conducted a wealth ranking exercise. Based on their work, identify PD families to visit. Prepare the questionnaires and tools to use for the activities. Write the activities on a flip chart:
 - 1) **Wealth ranking and nutrition assessments** - Wealth ranking is conducted to classify the community members in terms of their social- economic status. This can be as simple as differentiating poor households and wealthier house- holds using criteria set by the community members.
 - 2) **Social mapping and transect walk** – Social mapping and a transect walk with a few community leaders and caregivers of children with disability will help us identify local resources related to health and nutrition (availability of piped water and latrines, wild foods, health services etc.). The map should include health risk factors such as stagnant water where mosquitoes breed, garbage dumps etc., as well as the services available and their locations relative to the houses of the poor.
 - 3) **Market survey** – We will take a market survey to assess food costs and what foods are available in markets and shops.
 - 4) **Seasonal calendar** – A seasonal calendar created with a few community members will identify the availability of food sources for families and the common diseases in the community at different times (seasons) of year.

5 Min

2. Divide the participants into 5 groups of 2-3 people if possible. Each group should be provided with the respective questionnaires, observations forms, and/or tools to conduct 1 or 2 of the 5 different activities in the community. The facilitator moves from one group to another in order to guide and support them.

5 Min

3. Divide the participants into groups of no more than 3 people. These are the groups in which they will conduct the household visits the next day. 2 small groups may join together for the other activities, such as the market survey, seasonal calendar and transect walk.

5 Min

4. Explain the departure time and transportation arrangements for the next day and quickly outline the agenda for the afternoon session following the field trip. Remind participants the order of the exercises that will take place during the field visit. 2-4 groups will conduct a transect walk and 1 group will conduct the community mapping exercise simultaneously. Then with some understanding of the norms and resources available in the community, 1 group will be conducting the wealth ranking exercise with a diverse group of community members. Once the wealth ranking is complete, the wealth ranking criteria should be shared with the rest of the participants so that everyone knows the wealth ranking criteria prior to weighing the children. Then all groups could weigh the children. All participants should get an opportunity to conduct a market survey after weighing the children.

Field Visits

By use of a checklist, distribute copies of Handouts, 9.3, 10.3, 11.1, 11.2, 11.3, and 11.4 to the participants and remind them how to fill them out. The time the field visit will take, movement plans and the central meeting point at the end of the exercise need to be agreed upon

Note:

- Ensure data from children is entered in health records such as the mother child hand book and facility MOH tools
- Also, remind participants to refer children with 'red' coloured MUAC (Severe wasting) to Health Centres or Outpatient Therapeutic Programme (OTPs.)

45 Min

1. Engage participants in a discussion based on questions such as:
 - How did you feel about the visit yesterday?
 - What did you find easy?
 - What did you find difficult?
 - In which areas do you feel the exercise can be improved and how?

2. Address any issues that may arise.

3. Review the agenda for today.

Analyzing Situational Analysis Data

Session Objectives

By the end of this session, participants will be able to:

1. Analyze situation analysis data
2. Use the situation analysis template and PD Hearth Excel database.
3. Consolidate situation analysis data

Preparation

Distribute the Excel-based situation analysis template

Share the Excel-based PD Hearth database

Refer to Handout 29.7: User Guide for the PD Hearth Excel Database

Materials

- LCD projector and laptop
- Flip chart and markers
- A brightly colored marker
- Maize or other plant leaves (several healthy green ones and several unhealthy yellow ones)
- Pebbles equal to the number of children screened (depending on what is locally available)
- A large 'Road to Health' card and colored markers (Size A1)
- Data collection software

STEPS

60 Min

1. Consolidating Situation Analysis findings.

Allow groups time to consolidate situation analysis findings into situation analysis template excel document. Be sure to have one group collect all the nutrition assessment data from the groups and combine it into one excel document to see the overall nutrition assessment of the target area.

90 Min

2. Presenting the Situation Analysis findings

Have one group present the overall nutrition assessment of the target area (Consolidated data). Then have each group present their situation analysis findings about overall initial assessment (nutritional profile of community) and feeding, hygiene, caring and health seeking practices. Have groups emphasize on the community's existing resources, common practices and beliefs, and challenges that may be contributing to the community's overall high rates of malnutrition.

30 Min**3. Reviewing and Discussing the Situation Analysis findings**

- Review and discuss the overall findings as a group.
- Identify the major challenges and/or poor behaviors in feeding, hygiene, caring and health -seeking practices that are contributing to the high rates of malnutrition in the community.
- Write out the challenges on a flip chart.
- Assign someone amongst the participants to type out the challenges into a one-page handout for you (facilitator) so you can print it out for all the participants for the PDI visits.
- Inform the participants that they must keep these challenges in mind when conducting the PDIs in PD households. They must identify how the PD households overcome these challenges in order to find local solutions during the PDI visits.
- You will refer to these challenges especially when identifying PD practices and to design the 6 key Hearth messages in future sessions.
- Distribute the handout with the list of challenges for each group so that they have it when going for PDI household visits.
- Keep the flip charts that list out the challenges in a safe place so you can refer to them later when analyzing the PDI findings and designing the 6 Key Hearth Messages).
- As discussed in the community mobilization session (STEP 2) on the second day, it is important to give back information to the community.
- Referring back to Handout 10.1, we already completed Steps 1-4, and now need to complete Step 5 and share the situation analysis findings, primarily the nutritional status of the community, using non- technical terms.
- When we go out to the community tomorrow, we will begin with a community feedback meeting and share the baseline information from the nutrition assessment.
- Share the consolidated nutrition assessment data with the entire group (number and percentage of children healthy, at risk, moderate, and severely under- weight).
- Share two examples (below) of how the data can be shared with the community:

Analyzing Situational Analysis Data

5 Min

4. Example 1:

Use green and yellow leaves to show healthy and unhealthy plants. Discuss why the yellow leaves are unhealthy and ways to make the plants healthy (use manure, weed them, space them properly, fertilize them)

Link the maize leaves with children. Some children are growing well, and some are not. Why? (Not fed enough, not fed often enough, births not well spaced, sickly, not enough variety of food, parents absent)

Example 2:

Use stones (pebbles) to show the proportion of children who are like yellow leaves (malnourished) and those who are like green leaves (well-nourished). What makes the difference between these groups of children? How have caregivers in the community tried to help their children grow better? What do some families do to keep their children well-nourished?

If disability inclusion is a priority for this program area, staff or CHPs should present disability data in the community collected during the community assessment or any other community-wide prevalence data for disability during this time.

Are any children growing well? Why do they think that is happening? Are there things these families do that we could learn from? What have they tried? What has worked? Introduce PD Hearth – discovering together what these families do so that all can have well-nourished children.

30 Min

5. Group Work

Divide participants into 4-5 groups. Assign each of the groups one of the situation analysis activities to give feedback to the community: Nutrition assessment results, community mapping, and wealth ranking. Encourage the use of many visuals to simplify the technical concepts and language. Circulate and assist the groups.

Have the groups present their feedback session and ask participants what was good about the presentation and how the groups could improve in their feedback session.

Select 2-3 groups to lead the community feedback session for the next day. Make sure the participants take their visual aids with them to the community the next day.

Session objectives

By the end of this session, participants will be able to:

1. Explain the criteria and process for selecting PD families
2. Practice selecting PD families, utilizing nutrition baseline and wealth-ranking exercise data.

For Further Reading refer to: CORE PD Hearth Guide: pg. 68

Preparation

- If using data from a local village, confirm it is correct and that there are positive deviants.
- Write the definition of positive deviants on the flip chart (see definition below).
- Print Handout 10.4: Initial Assessment Worksheet

Materials

- Flip chart with the definition of positive deviants: Positive deviants are individuals or groups (families, clans) whose special or uncommon practices and Behaviours enable them to find better ways to prevent malnutrition than neighbours who share the same resources

Handout 10.4: Initial Assessment Worksheet

STEPS

5 Min

1. Definitions

Review the definition of positive deviants on the flip chart. In terms of nutrition;

Who are positive deviants? Positive deviants are well-nourished children from poor families.

Who cannot be positive deviants? Only children, first-born children, a well-nourished child with malnourished siblings, children with a typical social or health problems, food-aid families, a child younger than seven months (the child's nutritional status is most likely due to breastfeeding), and/or children from non-poor families. See the list in the CORE PD Hearth Guide (pg. 68).

Who identifies the positive deviants? Trained healthcare workers and community health promoters.

15 Min

2. Review the criteria for identifying PD families, that is, good nutritional status and low wealth ranking. Divide the participants into pairs.

Using Handout 10.4: Initial Assessment Worksheet,' each pair decides which children are positive deviants by considering their weight, wealth ranking and birth order. Have the pair fill out Handout 16.1 as their exercise.

Identifying Positive Deviants (Step 4)

5 Min

3. This will provide a list of the potential PD children. However, the information needs to be confirmed by looking at the children's growth cards. Children who are truly PD will have been well nourished throughout their lives. If a child's growth card shows that he or she has only recently become well-nourished or is not consistently growing well, do not accept that child as a PD. An alternative way to teach this is to use data from the community to be visited during the course. If the Program has done the nutritional assessment before the course, use the data collected on nutritional status and wealth ranking. Enter the data in the same format as Handout 10.4 and use the information to identify the PDs.

15 Min

4. **Discuss the list of potential PD children as a group. Be sure to cover the following:**
 - **Who knows which families are PD?** Who has access to this information? Ensure Confidentiality: Only the PD Hearth staff and health care workers should have this information, and should not share it because there is a risk that PD Hearth families can be socially rejected.
 - **What if there are no PD Hearth families in the community?** At least one PD Hearth family is needed. If none is identified, it will be necessary to conduct the PD Hearth in an adjacent area, very similar community using the team from the target community. If there are many PD Hearth families, choose a few that are most appropriate for conducting the PD Hearth.

Handout 16.1: Identifying the PD, Non-PD and ND Households

Fill in the column, “Classification (PD, Non-PD, or ND) taking into consideration the definitions of PD, Non-PD, and NDs.

Child No.	Date of Survey	Child's Name	Caregiver's Name	Father's Name	Telephone	Landmark	DOB (dd/mm/yyyy)	Age (mo.)	Gender (M/F)	Birth Order	Weight (kg)	Underweight Status	MUAC (cm)	Wealth Rank	Classification (PD, Non-PD or ND)
1	10/07/2019	Ria Kamau Mugo	Leah Mugo	Geoffrey Mugo	0720xxxxxx	Mulika mwizi light	13/06/2018	13	F	1	9.2	Green	12.1	Poor	
2	10/07/2019	Musa Ibrahim Abdalla	Hafsa Ibrahim	Mohammed Abdalla	0724xxxxxx	Near Mosque	12/12/2016	31	M	3	9.6	Orange	12.4	Non-Poor	
3	10/07/2019	Judith Eunice Akinyi	Jojo Adhiambo	Andrew Steve Otieno	0722xxxxxx	Near ACK Church	12/02/2018	17	M	2	9.6	Green	13.1	Poor	
4	10/07/2019	Denise mutual Mutuku	Edith Nzisa	Eric Mutuku	0723xxxxxx	Near Posho Mill	18/10/2017	21	F	3	10.9	Green	13.7	Non-Poor	

Handout 16.1: Identifying the PD, Non-PD and ND Households (Correct answers)

Child No.	Date of Survey	Child's Name	Caregiver's Name	Father's Name	Telephone	Landmark	DOB (dd/mm/yyyy)	Age (mo.)	Gender (M/F)	Birth Order	Weight (kg)	Underweight Status	MUAC (cm)	Wealth Rank	Classification (PD, Non-PD or ND)
1	10/07/2019	Ria Kamau Mugo	Leah Mugo	Geoffrey Mugo	0720xxxxxx	Mulika mwizi light	13/06/2018	13	F	1	9.2	Green	12.1	Poor	Non-PD
2	10/07/2019	Musa Ibrahim Abdalla	Hafsa Ibrahim	Mohammed Abdalla	0724xxxxxx	Near Mosque	12/12/2016	31	M	3	9.6	Orange	12.4	Non-Poor	ND
3	10/07/2019	Judith Eunice Akinyi	Jojo Adhiambo	Andrew Steve Otieno	0722xxxxxx	Near ACK Church	12/02/2018	17	M	2	9.6	Green	13.1	Poor	PD
4	10/07/2019	Denise mutual Mutuku	Edith Nzisa	Eric Mutuku	0723xxxxxx	Near Posho Mill	18/10/2017	21	F	3	10.9	Green	13.7	Non-Poor	Non-PD

Session Objectives:**By the end of this session, participants will be able to:**

1. Describe the process, tools and methods for conducting the PDI
2. Identify resource tools for semi-structured interviews, coping strategies, and observations during visits to PD households.
3. Discuss the behaviors that influence the nutritional status of children.
4. Develop a logistical plan for training and conducting the PDI.

For further reading: Reference in CORE PD Hearth Guide: pg. 85–89, 94–103

Preparation

- Print copies of Handout, 17.1, 17.2, 17.3, 17.4, 17.5, a list of major challenges from Session 16, and possibly the Coping Strategy Index (CSI) tool from: https://www.fsnnetwork.org/sites/default/files/coping_strategies_tool.pdf
- Identify and orient trainers who will conduct the structured role play.
- Have three or four participants prepare the skit on visiting skills.
- Print and cut apart two sets of 24 behaviour cards (see sample in Step 4).

Materials

- Copies of Handouts 17.1, 17.2, 17.3, 17.4, 17.5
- List of major challenges from Session 16
- Coping Strategy Index (CSI) tool
- Two set behaviour cards

STEPS

15 Min**1. Purpose of a PDI**

Through the situational analysis (market survey, seasonal calendar, transect walk, and community mapping), we now know what resources are available in the community and understand the common feeding, hygiene, caring, and health seeking practices. Overall, the findings provide us with a better knowledge of what the 'norm' is in the community.

By conducting a PDI in non-PD households, we can further identify:

- Common practices, both good and poor behaviors
- The barriers and challenges households face in practicing positive behaviors.
- The reasoning for some of their behavioral or food choices

Once the reasoning, challenges and barriers are identified and understood, the PDI in PD households is used to observe and identify how the PD households overcome those very challenges and barriers that everyone else in their community cannot overcome. It is also an opportunity to understand the PD caregivers' thinking and reasoning behind the practices. Sometimes the PD caregivers will be practicing positive practices without any knowledge of it being a positive behaviour; it may just be a decision made because of family circumstances. Thus, PDI in PD households is used to find local solutions.

Preparing for the Positive Deviance Inquiry (STEP 3)

15 Min

2. Brief the participants on the PDI process.

We will be visiting families in our community to learn from them how they feed and care for their children who are 9-35 months old. We will visit during the time that caregivers feed their children. That way, we can observe how they feed them, the care they give them and the relationship between the caregiver and other members of the family. We want to talk to the caregivers and observe what they do. But we will not make any comments directly to the caregivers. We need to have open minds and look for unexpected practices or ways addressing the major challenges identified through the situational analysis and visiting the non-PD households. The positive deviance inquiry is intended to help discover that which is right in front of us. We expect to find something positive; we are like detectives looking for clues, and we need to get rid of any preconceived notions.

(Note: Community Health Promoters may not be able to lead the PDI visit but they will be valuable observers on the team.)

5 Min

3. Discuss the kind of information that will help us learn about feeding and caring practices. We will discover with community members, foods which poor families use to keep their children healthy and strong. These foods are 'good foods. We will discover the 'good care' these families give to their children. In the same way we will discover 'good health care' and 'good hygiene'.

By learning about these 'good' things from poor families with healthy children, we will be helping address the community's nutrition problems with solutions from its own people. These solutions will help other families in the community learn and understand how to help their children to be healthy and strong.

- **What categories of home-based Behaviours are we looking at?**

(Feeding practices; caring practices; hygiene practices; and health seeking practices). Ask participants for an example of a positive practice for each category. (Refer to pp. 90–91 in the CORE PD Hearth Guide.)

- **What are we trying to discover through the PDI?**

The PDI seeks to identify local solutions to the major challenges identified through the situational analysis, which may be unusual, successful and culturally acceptable. This include Behaviours and strategies practiced by very poor families which can be more widely practiced by others in the community who have similar resources. How does the PD family overcome the challenges and constraints that it shares with other families? For example, saving for health expenses is a positive but uncommon practice. The PDI should answer the question: How is this family able to save money when others do not?

- **The content for each category can be different according to cultural context.**

What are some examples of challenges in feeding, caring, hygiene, and health-seeking practices that were identified through the situational analysis? Go through the list of challenges identified during Session 20. Issues identified during the PDI can be explored for cultural appropriateness during the later process of sharing with the community (see Session 20, 'PDI Interpretation and Feedback').

- **Who should explore these?**

The PD team and local partners.

- **Who is required on the PDI team?**

The community health promoters and health care workers (supervisors) must be part of the team with additional participants from other relevant stakeholders. It is very important that CHP be part of the PDI team because they are most familiar with the community. Some of them may not be comfortable or have the skills to lead the interviews. With good training, however, they will become valuable team members who help us understand important community information. When selecting personnel, look for the following characteristics: belief in the approach, openness to learning from one less educated, and willingness to follow instead of leading. Note that PDI requires a change in attitude for Health managers and trainers; they are going to the community as learners, not as experts.

- **The PDI has an interviewer and observers.**

Both roles are important. The interviewer may be a community member, a community health volunteer, or a trainer/ supervisor.

- **Training the PDI team.**

Training should emphasize communication skills, listening skills and observation skills. It is particularly important to be able to probe into the issues in a culturally acceptable manner. Use role plays to practice skills and home visits in the neighborhood with feedback sessions. The role of an observer is passive. Training is important to increase the confidence level of the team.

- **What are some cultural filters that influence behaviors and how we view them?**

In searching for behaviors that are positive and those that are retrogressive, the PDI team needs to look through the lens of local culture. Team members should look at family structure; socio-cultural norms; food taboos; patterns of decision making; traditional practices or customs; religion; beliefs; gender; and presence of informal or traditional health systems. The role of grandmother/father, and fathers/men, or caregivers may be particularly relevant to understanding the Behaviours practiced within the home. It is important to observe and engage the grandmother and fathers/men in the visit.

The following exercise helps participants understand Behaviours and skills that are important to the nutritional status of children.

5 Min

4. Divide participants into two teams. Each team gets one set of 24 behaviour cards. Have the team members separate the cards into two piles: those with behaviours that directly affect the nutritional status of children, and those that do not. Tell them to be prepared to justify their choices.

10 Min

5. Bring the teams together. Call out each behaviour and have the team members put both hands in the air if the behavior directly influences the nutritional status of children or put their hands behind their back if it does not. Have team members explain their choices, especially when there is disagreement about the behaviours.

Behaviour cards sample

Make two sets of cards. Write one behaviour on each card.

Preparing for the Positive Deviance Inquiry (STEP 3)

DAY 4

Table 1: Behaviors Card Sample

Caregiver smiles and makes eye contact when feeding child	Nails are clipped	Use of home remedies for illness	Child is bathed every day	Boils drinking water for the family	Child eats five times a day including snacks as per age. appropriate.
Caregiver sings to child while washing hands	Use of soap to wash hands	Child is given fruit for snack	Child breastfeeds during the day only	Grandmother talks to child with a warm voice and helps the child eat	Adds oil to porridge
Child is dewormed	Seeks medical help when ill	Eggs and groundnuts are included in meal	Parent hits the child for not obeying	Kitchen pots are washed and left to dry on a rack	Child feeds often during illness
Caregiver praises good behaviour	To discipline child, caregiver stays calm and talks to the child in a kind but firm tone	Sleeps with window open	Child eats from own bowl	Washes hands after using latrine	Child wears sandals
Takes child for growth monitoring	Eats food without washing hands	Takes child for supplementation	Not taking children for Immunization	Mother seeks for Family planning services	Caregiver shows love and affection to the child
Availability of hand washing facilities.	Sleeps in the same house with animals	Exclusive Breastfeeding for Children Below 6 Months / continued breastfeeding for 2 years or beyond.	Caregiver feeds the child Responsively	Child kept neat and clean	Forces the child to feed.
Defecates in the nearby bush	Mother and small children eat from the same plate.	Children at food once a day.	Grandmother takes care of small child while mother is away.	Children bathes when only going to church.	The father eats first before children

5 Min

6. What tools can be used to gather information about child-care behaviours (feeding, health-seeking, caring and hygiene)? Refer the participants to the 'Observation Checklist for PDI' and the sample 'Semi- structured Interview' in **the CORE PD Hearth Guide (pg. 99–103)**. Allow a few minutes for them to look these over.

Observation Exercise

Have the participants and their pairs face each other. Each person carefully observes his or her partner for 30 seconds. Then tell the partners to turn and stand back-to-back. Each partner is to change one thing about his or her appearance (take off an earring, put on glasses, button a cuff, etc.). Then ask the partners to face each other again. Each is to tell the partner what has changed. Ask how many were able to identify the change. Emphasize the importance of good observation in order to explore behaviours through the cultural lens of the community.

10 Min**7. A simplified 24-hour recall exercise**

The purpose of this exercise is to find out from the caregiver everything the child ate in the last 24 hours. The 24-hour recall during the PDI is also used to identify the PD foods. PD foods are the foods that only PD households feed their children and non-PD households do not feed their children. It is important to understand why non-PD households do not feed their children the PD foods and why the PD households do. This understanding could be used to explain why it is important to feed the children the PD foods during the Hearth session. **PD foods** are nutrient- dense, locally available, low in cost, and easily accessible in various seasons or even all year round.

Demonstrate this method with a participant who acts as the caregiver of a young child. Ask the 'caregiver' what the child ate when he or she got up the previous day. Probe for more information, asking about amounts the child ate (ask to see the bowl), how the caregiver prepared the food, whether she added anything else, whether the child ate or drank anything else. Then ask about the next thing the child ate. Did the child eat anything between the first meal and the second? Continue with these probing questions until the full day has been covered. Be sure the observer is taking notes on the foods, quantities and frequencies.

Distribute **Handout 17.1** and divide the participants into pairs. Have them practice doing a 24-hour recall with one acting as 'caregiver' and the other as 'interviewer'.

Preparing for the Positive Deviance Inquiry (STEP 3)

20 Min

8. Use the following role play to demonstrate and practice the skills necessary for conducting a PDI. Begin with three facilitators for scenario 1 (interviewer with questionnaire; mother of child; older sibling; may use doll or additional facilitator as PD child).

Role play 1: This role play portrays part of a PDI; during the part shown, the interviewer is focusing on feeding practices. The PD child is a well-nourished, 30-month-old girl. Her mother says the child eats only during the two daily meals. However, a sibling in the room is sharing a snack with the child (who is fed constantly by older siblings, her grandmother and neighbors).

The mother talks very little. While the mother is being interviewed, the sibling washes the child's hands, scolds the child when she drops something and tries to pick it up to eat it, plays with the child, gives the child a drink, etc. (The interviewer and mother don't interact with the child or sibling during this time.)

Note for the Facilitator:

After the role play, lead participants in discussing what is necessary for a successful PDI:

- **The quality of the interviewer's probing skills.** Note that probing was needed when information from the caregiver was not consistent with observation. It is all right to ask what the family does for a healthy child. But there should be no leading questions and no pre-formed ideas about what is 'right'. Listen to what family members say.
- **The importance of knowing local languages and customs.**
- **Conducting the inquiry without reading questionnaire.** Small talk can be employed to create a comfort level (this role play was brief, but an actual PDI is more often a two-hour visit in the village). Encourage caregivers to continue with whatever tasks they need to do. The interviewer may even help (getting water, stirring pot, playing with the child etc.)
- **Role of the observer.** The second person/observer (a supervisor, volunteer or other community leader) may recognize positive behaviours that the interviewer from the community does not see or recognize.
- **Seeking strategies, not just behaviours.** Carefully probe to learn how the family manages to practice a behaviour that their peers seem unable to practice. For example, if the family is feeding the child an egg frequently, how do they afford this? If the house and children are very clean in spite of lack of water, how does the caregiver accomplish this good hygiene?

10 Min**9. Role Play 2**

Ask three or four participants to prepare a skit using all the wrong approaches to a visit. There should be two interviewers and a mother. The interviewer uses comments like 'We know you are poor and want to find out why'. The mother is busy and asks the interviewers to return at another time. They invite themselves in anyway. The interviewers are eating candy and talking on their cell phones. They use big words and ask offensive questions. They are not respectful. The mother is obviously annoyed, upset and then angry. Ask participants how the interviewers could improve their visiting skills. Summarize the skills that are important for conducting a PDI home visit: probing in a culturally acceptable manner; mixing observation with conversation; good interaction to put the caregiver at ease.

5 Min

10. Give out **Handout 17.2**. Divide into groups of four or five people. Using Handouts 17.1 (interviewer) and 17.2 (observer), tell participants to role play a home visit with two participants acting as 'interviewer' and 'observer', and the others being family members. Practice until the participants feel comfortable talking about the four 'goods' – feeding practices; caring practices; hygiene practices; and health seeking practices – without referring to a list on a sheet of paper. Try to get the conversation to flow. Observe what the family members are doing as well as what they are saying.

5 Min

11. Ask participants to develop a logistical plan for the PDI in their local context, as a homework exercise. Distribute Handout 17.3 and instruct the participants to use **Handout 17.3** to summarize the PDI findings of all households from the upcoming PDI field visit. Distribute Handout 17.4 and inform participants that it is a PDI checklist they could refer to prior to going out to the field to ensure they have all the equipment and tools necessary to conduct the PDI household visits.

5 Min**12. Field Preparation Required for PDI**

How to select households to visit for the PDI:

Here is the order of how to select PDI households for the field visit:

1. Divide groups into groups of 3-4 (at least one person must speak the local language)
2. Each group must be assigned 1-2 NPDs (one NPD and/or one ND) and 1-2PD Households (assign households that are close in distance, if possible, per group)
3. Provide 1 NPD and 1 PD reserve household per group in case caregivers are not home during the PDI visit
4. Households with children 9-35 months are a priority for the household interviews
5. Using the initial assessment data, select sufficient PD, Non-PD, and ND households to visit for the PDI field visit using the criteria below:

Preparing for the Positive Deviance Inquiry (STEP 3)

- **PD Households should meet the below criteria:**
 - a. Children are aged 9-35 months
 - b. Poor or Very Poor Wealth Status
 - c. 'Healthy'/'Green MUAC" children.

N.B. In cases where you do not have enough households with healthy/ children with green MUAC, then select those "At Risk"- underweight children.
 - **Non-PD Households should meet the below criteria:**
 - a. Children aged 9-35 months
 - b. Moderately wasted children.
 - c. Poor or Very Poor Wealth Status
 - d. 'Moderate' and/or 'Severe' underweight children
 - **Negative Deviant Households should meet the below criteria:**
 - a. Children aged 9-35 months
 - b. Non-Poor Wealth Status
 - c. 'Moderate' and/or 'Severe' underweight children
 - For disability inclusion, you should also conduct PDIs in one or two households with children with disability to learn about their feeding, caring, health-seeking and hygiene practices and any barriers they face in practicing positive behaviours.
6. **Ask the group to first visit the non-PD household(s).** By visiting the non-PD household(s) first, each group will be able to verify and to list the major challenges contributing to malnutrition that were identified through the situational analysis and understand what the 'norm' is in the community. By visiting the PD household after the non-PD household, the groups will be able to better identify the Positive Deviant behaviours by asking questions of how the PD household overcomes the challenges that the non-PD households face. The positive practices that address these challenges will become Key Positive Practices that need to be promoted during the Hearth session. In addition, the interviewers and observers could look out for PD foods (low cost and nutrient dense) that are being fed only in the PD households that were not being fed in the non-PD or negative deviant households. These foods should be included in the Hearth menu and promoted during the Hearth sessions.
 7. **Divide groups into groups of 3-4 people, assign one role of observer, interviewer, recorder, and translator (if needed) to each member of the team.** Assign the role of a team leader for each group. To the team leaders, provide weighing scales, weighing pants, a hook, a rope (for weighing scale), a MUAC tape, PDI questionnaires (Handout 17.1), observation forms (Handouts 17.2 and 17.3), pencils/pens, notebooks for recording interview, and a list of households to visit (include back up households to visit in case caregiver and/or child is not home). Use the situational analysis finding template's Nutrition Assessment worksheet to identify and pick out the households to visit for the PDI. Arrange for each group to be supported by a community health volunteer or someone who is familiar with the village so that the groups could find the households easily. Ensure the community health volunteer or the person from the village is not in the way of getting honest answers from the caregivers.

If translators are needed, make sure at least one person in the group could speak the local language.

8. If food security is a major problem in the community for 1-3 months of the year, it is highly recommended to use the brief Coping Strategy Index (CSI) tool during the PDI household visits to identify key coping strategies within the PD households and to promote the coping strategies as a key Hearth message. (Reference <https://www.indikit.net/indicator/27-food-security/3950-reduced-coping-strategy-index>) (**Hand- out 17.5**)

Handout 17.1: Sample Guiding Questions for Conducting a PDI

Child name.....	County.....Sub County.....
Caregiver’s Name	Ward.....Link Facility.....
Caregiver’s contact.....	Community Unit:..... Village.....
	Landmark.....

Note: The tool administered in households selected for inquiry

How to conduct House Visits

1. Introduce yourself, congratulate the family on their good work, and ask permission to observe.
2. Be wise; respect the family
3. Don’t ask why they are poor.
4. Point out that you are here to learn, not to criticize.
5. Make sure the information collected regarding child information (e.g., age, birth order, etc.) is correct to ensure the child is a PD child.

Note: A child cannot be a positive deviant if: They are the only child, a first-born child, well-nourished child with malnourished brother or sister, children with social or health problems, have a family enrolled in a supplementary feeding program, a child younger than seven months (the child’s nutritional status is most likely due to breastfeeding), and/or children from non-poor families, a big baby who is losing weight now, a child with a begging or scavenging background.

6. Re-check the wealth ranking of the household before starting Positive Deviance Inquiry to ensure all data is accurate.
7. Visit 2-3 Non-PD households and 1 ND household in a community first, before visiting PD households to verify the major challenges in the non-PD and ND households relating to child care, child feeding, hygiene and health seeking.
8. Spend 1.5-2 hours in each Positive Deviance house. It is good to go during a meal time to observe the child’s feeding practices, but ensure you do not disturb the family.

Sample Guiding Questions for Conducting a PDI

2 OF 4

DAY 4

24-Hour Dietary Recall Question Guide: Now I want to ask you all the foods and drinks {CHILD'S NAME} ate and drank from morning to the time {HE/SHE} went to bed yesterday	
1. What is the first thing the child ate yesterday after waking up?	
2. How much did you give (of each feed)?	
3. How much of it did the child eat?	
4. Can you show me the bowl/ cup or any other feeding container used to feed the child?	
5. How did you prepare the food? Fried? Boiled? Steamed?	
6. Did you add any oil? or vegetable?	
7. Did the child eat any other food elsewhere? If yes, where?	
8. Did the child drink anything else?	
9. What is the next time the child ate? What did they eat? How much? How was it prepared? What else did the child eat?	
Did the child get anything else between the first and second meal? And between the second and last meal? Note: (food quantity, frequency and consistency).	
How many times did [CHILD'S NAME] eat yesterday	
Did the child eat any other food elsewhere? If yes where?	

Sample Guiding Questions for Conducting a PDI

DAY 4

3 OF 4

Good Food/Feeding	
1. Is the child breastfeeding?	
2. If not, at what age did the mother stop breastfeeding?	
3. At what age was the child introduced to other foods?	
4. What foods is the child being fed today?	
5. Who decides what the child will eat?	
6. What role does the father/grandmother play in child feeding decisions?	
7. What role do other relatives/household influencers play in feeding the child?	
8. Who feeds the child?	
9. How many times do you feed the child per day?	
10. Where does the family buy food? Who buys the food? How much money is spent on food each day?	
11. How many meals and snacks does the child eat a day?	
12. Are there any foods the caregiver does not give the child? If Yes, which foods are not given and why?	
13. Does your child have difficulty eating or drinking? If yes, what challenges/difficulties are they facing?	

Sample Guiding Questions for Conducting a PDI

4 OF 4

DAY 4

Good Child Care (complement with observation)	
1. Who is the primary caregiver of the child?	
2. What roles do other family members play in caring for the child?	
3. Who is in the house during the day?	
4. Ask about the water source.	
5. Do animals go in and out of the house? If yes, which animals?	
6. Do family members sing with the child while washing their hands?	
7. How do you treat your family drinking water?	

Handout 17.2: Observation Checklist

Child name.....	County.....Sub County.....
Caregiver's Name	Ward.....Link Facility.....
Caregiver's contact.....	Community Unit: village.....
	Landmark.....
Questions	Observations
Personal Hygiene	
1. Wash hands before/after? (During the critical hand washing times)	
2. Are plates washed?	
3. Are fingernails short and clean?	
4. Does child wear clean shoes?	
5. Wearing clothes?	
Food preparation	
6. Handwashing facilities (Check for soap and running water)	
7. Does the family wash the food before preparing or cooking?	
8. Is the food/water covered (before and after cooking)?	
9. What household measures are used to measure food (e.g., size of cup, spoon sizes, do they use fist sizes?)	

Observation Checklist

2 OF 3

DAY 4

Home Environment	
10. What foods are planted in the gardens?	
11. Are there animals present at home? (Are the animals caged or playing with children?)	
12. Where and how is water and food kept?	
13. How does the household manage waste?	
14. How are the toilets/latrines? Are they clean? Type? Distance from houses)	
15. Water (boiled/filtered, distance, source)	
Interaction between caregiver and child	
16. Does the caregiver show loving and caring behaviour	
17. Does the caregiver play with the child?	
Feeding Practices	
18. Does the child pick up food from the ground and eat it?	
19. Does the caretaker help the child to eat and watch the child eat?	
20. What amount of food is the child eating?	
21. How many times do you feed the child per day?	
22. How does the caretaker feed the child?	

Observation Checklist

DAY 4

3 OF 3

Health Seeking Practices	
23. Do you see any ORS packets? (If No Ask)	
24. Do you see an LLITN? Is it in good condition?	
25. Does the household have a mother and child health handbook?	

Observation Checklist

Handout 17.3: Results and Observations from the PDI

County.....Sub County..... Ward.....Link Facility..... Community Unit:village name..... Landmark.....			
PD Food/Feeding	PD Caring	PD Hygiene	PD Health Seeking
Non-PD Food/Feeding	Non-PD Caring	Non-PD Hygiene	Non-PD Health Seeking

Handout 17.4: PDI Checklist

- Make a list of major challenges that may be contributing to high rates of malnutrition in community through the situation analysis findings (e.g., behaviours, lack of services, poor access to water, etc.) to use as a guide for PDI
- Include community members, CHPs, or lead mothers in the PDI process.
- Ensure a PDI team consists of 2-3 people and a team leader must be a trained health care worker. If multiple teams are used in the PDI process, every team must be led by a trained healthcare worker/supervisor.
- Optional: If the Coping Strategy Index (CSI) tool was used during the situational analysis, and Food Security questions were identified, include the food security guiding questions in the PDI list of questions to identify coping strategies for food insecure periods/seasons in the PD households
- Take the list of major challenges (and food coping strategy questions) as a guide for identifying local solutions in PDI process.
- Carry child weighing scale, MUAC tape, and wealth ranking criteria to PDI households
- Carry and use PDI observation checklist during PDI
- Re-weigh and check the MUAC of the child of interest, along with their siblings between 6-59 months of age to ensure all children are healthy if it is a PD household as all children must be healthy and/or 'mildly' underweight is also acceptable. Only check the weight and MUAC of the child of interest if it is a Non- PD or ND household.
- Re-check the wealth ranking of household before starting PDI to ensure all data is accurate.
- Visit 2-3 Non-PD households and 1 ND household in a community first, before visiting PD households – verify that the list of major challenges are really the major challenges in the non-PD and ND households.
- Visit at least 3-4 PD households to identify how they are addressing the list of major challenges identified through the situation analysis and for food coping strategies during food insecure periods
- Analyze the PDI data using the Excel document called “PDI findings” and/or flipchart (Session 25 in the PD Hearth ToF Manual)
- Share the PDI findings with the larger community and/or through other platforms such as Mother Support Groups or Care Groups

PDI Checklist

Questions to identify coping strategies for food insecure periods/seasons in the PD households.

Handout 17.5: Reduced Coping Strategy Index

<p>Child name.....</p> <p>Caregiver's Name</p> <p>Caregiver's contact.....</p>	<p>County.....Sub County.....</p> <p>Ward.....Link Facility.....</p> <p>Community Unit:village name.....</p> <p>Landmark.....</p>		
<p>In the previous 7 days, if there have been times when you did not have enough food or money to buy food, how often has your household had to.....</p>		Severity weight	Weighed score (Frequency x weight)
Q1: rely on less preferred and less expensive foods		1	
Q2: Borrow Food or rely on help from friends or relatives		2	
Q3: limit portion size at meal time		1	
Q4: restrict consumption by adults in order for small children to eat		3	
Q5: reduce the number of meals eaten in a day		1	
		TOTAL SCORE	

Session Objectives

By the end of this session, participants will be able to:

1. Confidently conduct household visits and PDIs.
2. Identify PD and Non-PD behaviours during the PDI.

Materials

Handout 17.1: Sample Guiding Questions for Conducting a PDI

Handout 17.2: Observation Checklist

Handout 17.3: Results and Observations from the PDI

Handout 17.4: PDI Checklist

Handout 17.5: Reduced Coping Strategy Index

Field Visit (4.5-6.5hrs)

Distribute copies of Handouts **17.1, 17.2, 17.3 and 17.4** as well as the compiled list of the major challenges identified during Session 15 to each participant and remind them on how to use or fill-out the Handouts.

Total field visit time is 1 hour to 1.5 hours per PDI Household. Usually, the field visit should take approximately 4.5 to 6.5 hours plus travel time to and from the field. Also, distribute copies of the CSI (Coping Strategy Index) questionnaire (Handout 17.5) if food insecurity is a major challenge and PDIs are being used to identify coping strategies as well.

STEPS

19. Review of Day 5 Field Visit and Agenda for Day 6

1. Engage participants in a discussion based on questions such as:
 - How did you feel about the PDI field visit?
 - What did you find easy?
 - What did you find difficult?
2. Address any issues that may arise.
3. Review the agenda for today.

Session Objectives

By the end of this session, participants will be able to:

1. Describe the categories of behaviours identified during the PDI analysis
2. Describe the participatory processes for analyzing PDI data and selecting PD feeding, caring, hygiene and health-seeking behaviours to be used in PD Hearth sessions
3. Demonstrate skills for sharing the PDI findings with the community.

Reference in CORE PD Hearth Guide: pp 89– 98, 104–12.

Materials

- Flip chart
- Matrix for each small group to record PD and non-PD behaviours

Matrix for PD and Non-PD Behaviours

PD Food/Feeding	PD Caring	PD Hygiene	PD Health Seeking
Non-PD Food/Feeding	Non-PD Caring	Non-PD Hygiene	Non-PD Health Seeking

STEPS

30 Min

1. Each group posts its field-visit summary sheet on the wall. The groups circulate around the room to read the behaviours/practices discovered by each group. In small groups, the participants discuss each behaviour and place it in the matrix under the appropriate column for the PD families and then for the non-PD families for contrast. If a behaviour is repeated by more than one family, the group should highlight it and indicate how many times that behaviour was observed. This serves to illustrate common trends among the PD families and non-PD families.

Do not include positive practices that non-PD households practice and common practices that everyone practices. The key is to identify the unique positive practices that only PD households are practicing that allow their children to be healthy. Especially point out local solutions that the PD households are practicing.

100 Min

2. Group work

Ask each group to explain the findings of its PD data in the large group. Show what behaviours were found in the PD families' homes and what behaviours were found in the non-PD homes. Answer the following questions:

- 1) What are the different practices between PD and NPD/ND? (Record findings in format shown in Handout 17.3)
- 2) What are some of the challenges faced in the community? (e.g., don't like Micro-Nutrient Powders (MNPs), breastfeeding but only up to 3 months, only feed porridge)?
- 3) What is the PD household doing to address these challenges at home? Identify the local solution for these challenges. Use Question 1 to fill out the entire table on Handout 17.3 and use Question 2 to add important findings into the non-PD practices section of the table on Handout 17.3.

Use Question 3 to add important findings into the PD practices section. Put a star beside the PD foods listed under 'PD Food/ Feeding' on Handout 17.3

For behaviours that are considered positive, lead the group to select whether the behaviour could be practiced by a poor family or only by a non-poor family. Is it feasible, easily replicable and affordable? Point out to participants how this exercise mirrors the process used in the community to analyse information from the PDI. Together, develop a summary chart of PD behaviours/skills/practices/messages that will need to be emphasized in Hearth sessions.

Looking at the major challenges faced in the community, select 6 key PD practices that will address the challenges and directly affect the nutritional status of a child.

For example, if exclusive breastfeeding was not commonly practiced up to 6 months, this will be a major challenge faced in the community. However, if you found the PD households are practicing exclusive breastfeeding up to 6 months of age, make these one of the 6 key Hearth messages. Ensure the PD foods are used in the menu design in session 23.

30 Min

3. Guidance on how to design 6 key Hearth messages:

Point out that there are points to consider when designing the selected six key PD practices into Hearth messages²

Write out the four points and the note below on Flip Chart #1:

- 1) Define the behavior (behavior is an action that is observable, measurable, and feasible). Describe how the behaviour/action should be executed.
- 2) Specify the time, place, quantity, and/or frequency of the behavior. This helps to clarify what is the prompt or reminder to the behaviour.
- 3) Develop a creative method to deliver the messages (e.g., songs, pictures or diagrams, interactive games, etc.).

Note:

- The message should be designed to target primary care givers of children under 5 years of age. Check that you wrote the behaviour from their perspective.
- Keep the message short and clear.
- Select a message that is easily replicable by all primary caregivers of children under 5 years of age (e.g., behavior is feasible).

As a group, take the example PD practice: A PD practice is to use a plate to cover the top of the drinking water storage container to prevent contamination and go through each point on Flip Chart #1 and use a second flip chart to write out corresponding messages according to the element.

Delivery: Demonstrate the message using a water storage container covered with a large plate and a designated cup to scoop water from the pot and ensure the designated cup is stored in a clean environment when not in use

Have participants check that the messages are:

- Targeted for primary caregivers of children under 5 years of age. Check that you wrote the behaviour from their perspective.
- Easily replicable by all primary caregivers of children under 5 years of Age (i.e., the behaviour is feasible).
- Short and clear.

² *The Technical and Operational Performance Support (TOPS) Technical and Operational Performance Support Program. 2017. Designing for Behavior Change: A Practical Field Guide. Washington, DC: The Technical and Operational Performance Support Program.*
https://www.fsnnetwork.org/sites/default/files/designing_for_behavior_change_a_practical_field_guide.pdf

Now, divide participants into six groups and assign one of the six selected PD practices to each group. Have each group go through the four points to design a key Hearth message for the assigned PD practice and have them write out the Key Hearth message on a flip chart when done.

Have the groups post up their designed Key Hearth message on the wall and go through them together to see if any of them can be further improved looking at the four points and making sure the messages are target to caregivers with children Under 5 years, messages are easily replicable and are short/clear.

30 Min

4. Have at least one small group role play how to give this information back to the community. This will help develop community ownership and enable community members to identify immediately accessible solutions to childhood malnutrition. Have at least one group present its role play and discuss it afterward with the large group. What was positive? What was difficult? What other ways could the information been communicated?

Point out that by leading a group of villagers to identify uncommon, good behaviours, you have facilitated community validation of choices ('buy-in'). Note: CHPs may need help in analyzing which behaviours are beneficial and which are harmful.

10 Min

5. How to deliver key messages

Briefly summarize the steps in the PDI. Use this opportunity to repeat and clarify important points and answer any questions. The steps in the PDI are the following:

- Select the PDI team.
- Train the team (include role play).
- Select sample PD households and conduct a practice PDI. These households are informed in advance, and the PDI team has the opportunity to practice and share notes.
- Conduct the PDI (may also conduct the PDI in non-PD and negative- deviant households for comparison purposes. May also conduct PDI in one or two households with children with disability to learn about their feeding, caring, health-seeking and hygiene practices and any barriers they face in practicing these behaviours).
- Compile the findings.
- Share the findings with the community
- Plan the Hearth sessions using the information discovered about food (Hearth menu), active feeding, hygiene around eating/food, child development games, role of men (perhaps invite fathers to one Hearth Day), role of grandmothers and other family members.
- Document other community initiatives resulting from the sharing with the community.

Session objectives:**By the end of the session, participants will be able to:**

1. Identify when to give information back to the community
2. Practice creative ways of presenting information to the community.

Materials

- A flip chart
- A brightly-coloured marker
- Print out Handout 21.1
- Stones
- Fresh and dry leaves

STEPS

10 MIN**1. Steps for Community Feedback and ownership**

As discussed in the community mobilization session, it is important to give information back to the community so that they understand their problems and take ownership. The following are the steps for community feedback and ownership.

Briefly summarize the steps in the PDI. Use this opportunity to repeat and clarify important points and answer any questions. The following are the steps in the PDI:

Step 1: Ask for the community's permission and invitation to use the PD approach (finding existing solutions to malnutrition problems within the community). Discuss a way to describe the PD Hearth concept in local language, using proverbs or stories.

Step 2: Engage the community in defining the problem.

Step 3: Share the results of the weighing exercise with the whole community.

Step 4: Discuss childhood malnutrition with community members: its causes, and common challenges and constraints. Ask for their ideas or suggestions for solutions.

Step 5: Share the PDI findings with the whole community, examine the PD behaviours and strategies identified, and invite them to develop a plan of action that will include Hearth sessions.

At different times, different information needs to be shared. This is extremely important in building community ownership and commitment. What are some of the effective ways to communicate with the community? Effective communication will ensure we engage their attention, build on their ideas as well communicate in ways they understand. Some effective communication ways are; object lessons, skit, dance and songs

50 Min

Community Feedback Meetings

2. Presenting Information Comparing Community Norms with the PDI Information

Divide persons into four groups. Have each group come up with a creative presentation to share the 6 key Hearth messages and list of PD foods with the rest of the community. Circulate and help the groups.

Present two skits.

The first shows a family with children who are sick. The family demonstrates poor behaviours (caregiver goes to the field in the morning without feeding the children, eat only maize without washing hands, poor overall hygiene, grandmother tells mother not to feed the child when s/he has diarrhoea). Include behaviours that are seen in the community. Exaggerate to make the skit funny. The second skit shows a family with happy, healthy children demonstrating good practices (feeding a variety of foods, washing hands, helping a child eat, giving healthy snacks, talking to children, grandmother supports caregiver's active feeding of children, gives separate bowl for young child to eat). Include any practices that have been discovered in the PDI. Talk with the community about how poor families with good practices have been able to keep their children healthy. Talk about the practices discovered in the PDI. Do they contribute to children being healthy? Could every family in the community practice them?

Hold a discussion with the community to create an action plan, including a discussion to identify mothers who will volunteer for the first PD Hearth session in the community (among families with either underweight or healthy children). Have the groups present the skits to the others? Discuss the presentations and encourage the participants to offer as many ideas as possible

50 Min

3. Handout 21.1: Focused group discussion for older siblings aged 10-13 years and 14- 18 years taking care of children aged 6-35 months

Questions

1. When do older siblings help take care of younger siblings?

Note to the facilitator: Probe for the various situations and length of time, if necessary. If it comes up as a question, children can share times with an adult (like your mother, father, grandmother, grandfather or other adult family member) and also when the older sibling takes care of younger siblings on their own.

1. What do you or others do when you are taking care of your younger siblings (play, cook, feed, bathe, sing, etc.)?
2. Why do you help take care of younger sibling(s)?
3. What kind of instructions or rules do you have from adults for taking care of younger siblings? Do you also have rules of your own?
4. What do you give your younger sibling to eat? To drink?
5. Are there any foods or drink that you are not supposed to give to your younger sibling?
6. What do you do if you need help with caring for your younger sibling?
7. What happens in your family if your younger sibling is sick? Report back to children on the findings of the focus group discussion as a separate meeting before the community feedback session, as part of our accountability to children. The children's contribution should be mentioned in the community feedback session as well. Be sure that they can see how their ideas are being used and how it is influencing their community's programme. State the findings in a way that protects the child, particularly if you were discussing a sensitive issue.

Designing Hearth Sessions (STEP 5)

80 MIN

DAY 6

Session objectives:

By the end of this session, participants will be able to:

- 1 Describe what happens in a Hearth session.
- 2 List the activities that occur during Hearth sessions.
- 3 Describe lessons caregivers will learn during different Hearth activities.

For further reading, refer to CORE PD Hearth Guide: Hearth Session Protocols, pg. 135–140 Use locally available staple foods as examples

Preparation

- Review Handout 22.1
- Ensure you have one flip chart for each of the activities of a Hearth session.
- Review the equipment list on page 136 in the CORE PD Hearth Guide. Ask several participants to develop a role play of what happens in a Hearth session.
- Ask participants to prepare a skit demonstrating what a Hearth session is like. Ask a person who has experience with Hearth sessions to act as the ‘volunteer’ (or a facilitator can be the ‘volunteer’). Be sure to include greeting caregivers and their children, collecting the food contributions and mentioning how these can help children to grow well, handwashing and snack, food preparation, games with children, handwashing and feeding children, discussion of what each caregiver or caregiver-grandmother pair will bring the next day, and cleanup.

Materials

- Flip-chart paper
- A marker for each participant
- Sufurias
- Spoons
- Cups
- Jugs
- Cooking sticks
- Weighing scale
- MUAC Tapes
- Mats
- Hand washing station
- Registers
- Daily menu and recipe
- Fuel
- Measuring jugs
- Handwashing station with soap
- Basin
- Plates
- Handout 22.1: Examples of Learning Opportunities through PD Hearth Activities

1. The PD Hearth approach helps identify positive behaviors and strengths that exist in the community and builds upon them. PD Hearth follows a three-step process for behavioral change:

- 1) Discovery (PDI)
- 2) Demonstration (Hearth sessions)
- 3) Doing (in Hearth sessions and at home, with follow-up visits to reinforce learning).

Hearth sessions are held in home set-ups in the community for twelve days (six days per week) with no more than ten malnourished children and their caregivers. At each session, the caregivers prepare energy-rich, calorie dense foods and feed their children under the guidance of the CHPs. They also learn about nutritious foods, positive child-caring practices and health care behaviours, including proper hygiene.

What are some strengths of the PD Hearth approach? Remind the participants to keep these two goals in mind:

Goal 1: The malnourished child will recuperate.

Goal 2: The child's caregiver(s) will learn new behaviors (so that rehabilitation is sustained at home and

Goal 3: Future malnutrition is prevented among all children in the community.

Promotes role modelling: If the Hearth volunteer is a PD caregiver (e.g., mother, grandmother, father, and grandfather), he or she becomes an excellent role model.

Is experiential: Hearth sessions avoid lecture-style teaching; instead, caregivers are involved in all steps (hands-on style of learning). Is based on cultural/social norms: Norms are reinforced with community support. Interventions are culturally appropriate and often use songs and/or stories that are part of the culture.

2. Role play on activities during hearth sessions

Present the role play that illustrates the different activities of a Hearth session. Discuss the role play, covering the following topics: What activities take place during a Hearth session? (Caregivers and volunteers work together to prepare food, feed, and entertain the children. Children – and perhaps siblings – receive a small snack and have supervised play while the meal is being prepared.)

Where should the Hearth session be held?

(The session requires a central, adequate space, preferably a home or other spaces such as community centers, while the 'hearth' should be large enough to accommodate the group, it should not be very different from the homes of the participating families.)

Designing Hearth Sessions (STEP 5)

Time required

(A session takes two to three hours each day. Caregivers participating in the PD Hearth program should decide a time that is convenient for all of them. Caregivers must meet for 12 days: six consecutive days followed by one day break and another six consecutive days.)

Are there basic requirements at the site?

(The site should have a latrine; water for drinking, cooking, and washing hands; and shade.)

What equipment needs to be at the site?

(See handout 29.1)

5 Min

3. Discussion of PD Hearth Activities

Ask one participant to describe the order of activities during a Hearth session.

Briefly review the activities of Hearth. Have each of the following activities listed on flip chart paper, one activity per sheet, and post the sheets around the room.

- Arrival of caregivers and children; take attendance and track contributions for the day (e.g., menu and cooking materials)
- Weigh children on Day 1 and Day 12 of the program. Collect MCH handbooks to obtain immunization, supplementation and deworming information for each child; if child has not been fully immunized, dewormed or received vitamin A supplementation, refer the child to the nearest health facility for proper treatment before joining the Hearth session.
- Collect food contribution.
- Hand washing/hygiene
- Snack
- Cook
- Play games with children.
- Feed children
- Decide on menu and cooking material contributions and assign roles for next day
- Clean up.

5 Min

4. Hearth presents many informal learning opportunities for caregivers such as modelling, conversation and learning by doing. Each community's practices are different, so the health education messages built around those practices will likewise be different for each village. The topics in the examples below do not need to be taught through talks; rather, the volunteer reinforces these practices each day through conversations with the caregivers during the activities. Give each participant a marker and have them walk around the room where the Hearth activities are posted on flip chart paper. Ask them to list on the papers what caregivers can learn during each of these activities

5 Min

5. In addition to the 6 key Hearth messages that were designed, what other feeding and nutrition, caring, hygiene and health-seeking messaging could be shared throughout the Hearth sessions at the different stations, including cooking station, handwashing station and caring station.

As a group, review each activity and add other learning opportunities. (See Hand- out 22.1.) Discuss other lessons caregivers might need to learn and grandmothers can support. Consider especially practices and messages from the PDI. How will caregivers and grandmothers have an opportunity to learn these? During which activities? What activities can contribute to early childhood stimulation? Emphasize that lectures or other formal teaching methods are not used during Hearth; instead, all the messages are conveyed through conversation and learning while practicing.

10 Min

6. Ask the first group to finish its song to prepare a 5–10-minute role play on how a first day of Hearth unfolds (refer to **CORE PD Hearth Guide**, p. 138).

5 Min

7. Clarify any questions about Hearth sessions, for example, variations from program experience.
- Food contributions – All caregivers should bring food contributions. However, extremely poor caregivers should be supported to explore if they can also contribute food items.
 - Obtaining equipment for the Hearth sessions – each caregiver should bring the equipment for her own child (ren).
 - Finding an appropriate Hearth setting –If a caregiver cannot host all the days, the sessions may rotate among the home. Hearth sessions could also be held in central place like a health facility where applicable.
 - Prior visit to health center – The CHP can accompany each caregiver and child to the health center to ensure children are immunized.
 - Caregivers to provide fuel.

Designing Hearth Sessions (STEP 5)

10 Min

8. General Steps followed in each Daily Hearth Sessions

- 1) Welcome all the participants. Review the goals of the Hearth, the agenda for the day, and respond to any participant concerns or questions.
- 2) Show the participants where they can wash their hands and the hands of their child: demonstrate proper handwashing technique using soap.
- 3) Distribute a snack to the children (discuss how snack time boosts calorie intake, stimulates appetite and provides the caregivers with time to cook the main meal).
- 4) Conduct a health education discussion on the health topic for the day.
- 5) Divide the participants into teams for different aspects of food preparation,
9. Childcare and stimulation, and clean-up.
- 6) Prepare and cook the meal while other participants play with the children sing songs and play games
- 7) Repeat handwashing of the caregiver and child.
- 8) Distribute the meal and supervise caregivers as they feed their children (use opportunities to demonstrate active feeding techniques).
- 9) Clean up.
- 10) Review the day's lessons.

Handout 22.1: Examples of Learning Opportunities through PD Hearth Activities**1A. Arrival of caregivers and children/attendance**

- CHP gives positive reinforcement for good hygiene.
- CHP asks how things are going at home – troubleshoot and share observations.

1B. Collect food contribution Discuss:

- Cost and sources of nutritious food
- Food variety, healthy choices
- Food groups and nutritional value of food
- Including a variety of food in a day
- Safety of food, proper storage
- Where foods can be found or gathered
- Food production/home gardens

2. Hand washing/hygiene/health seeking**Discuss:**

- Modelling proper hand-washing technique
- Use of soap
- Times when hand-washing is important
- Reason to wash hands: bacteria/germs contribute to illness/diarrhea
- Treatment of diarrhea/illness, when to seek health care
- Immunization, deworming
- Using the handwashing station to play and stimulate the child through singing songs on handwashing and/or counting children's fingers
- Nail cutting
- Orientation to personal hygiene
- Latrine use
- Use of shoes

3. Snack**Discuss:**

- Frequency of snacks and meals
- Why feed children four to five times a day
- Healthy snacks that require little or no preparation
- Consistency of food
- Food storage

4. Cooking the hearth meal

Discuss:

- Nutritional value of food
- Sources of affordable food: food production/home gardens, barter, collecting wild
- fruits
- Variety of food
- Good cooking techniques
- Food hygiene and safety, storage
- Promoting thick consistency of food
- Palatability and appetizing appearance

5. Child stimulation/play

Discuss:

- Modelling play and care of children (have age-appropriate toys prepared using local
- materials to stimulate learning for children)
- Social skills/sharing/cooperation
- Cognitive Development and stimulate children – have songs, stories with pictures, and games prepared to keep children occupied and encourage learning, which helps in child's cognitive development (naming foods, objects, body parts, animals, talking about colours, shapes and sizes, counting fingers, people, trees, etc.)
- Safe environment to play (be sure to have a mat and safe/clean play environment for children to freely play)
- Positive reinforcement (Praise good behaviors of children to motivate them to engage in positive activities)
- Show appropriate touching and affection to help child's social and emotional development (Love your child and show affection especially when they are upset by hugging, cuddling, and talking with them softly and calmly throughout the day)

6. Feeding children

Discuss:

- Importance of responsive feeding: Smiling and making eye contact with child while feeding the child
- Talking to the child while feeding (telling them about the food, narrating using warm voices to encourage learning)
- Content of foods (colors, nutrients)
- PD foods and why they are good
- Importance of meal frequency (four to five times a day)
- Breastfeeding
- Portion sizes
- Troubleshooting feeding problems
- Food taboos
- Stimulating a child's appetite

7. Cleaning up

Discuss:

- Hygiene – clean surfaces and utensils
- Use of leftovers
- Food safety
- Food storage
- Reuse water, compost (where applicable)
- Latrine use and cleanliness

8. Review of the day's session and planning for the next day**Discuss:**

- Local and affordable foods, including the PD foods.
- Quantity of food
- Food combinations – variety, colour
- Nutrient value of food – the importance of variety
- Where to find foods
- Planning menus and budgets

Daily Summary and Evaluation

By the end of this session, participants will be able to:

Evaluate personal learning for the day.

Preparation

Write the daily evaluation questions on a flip chart.

Materials

- Half sheet of paper for each person

Ask each participant to reflect on the day's sessions. They will write in their curriculum ideas to improve or adapt the various presentations methodologies so they are more appropriate for their own contexts. Participants should be ready to share any good ideas they might have.

Daily Evaluation

Distribute a half sheet of paper to each participant. Ask the participants to complete the three phrases written on the flip chart.

1. Something I learned today that I will apply in our PD Hearth program is

.....

2. Something new that I learned about PD Hearth today is

.....

3. Something I am still confused about is

.....

The facilitators will review these evaluations at the end of each day and spend a few minutes at the beginning of the next day clarifying any issues raised in number 3.

Thank the participants for their good work during the day. Mention any highlights of the day. Remind them of the meeting time for the next session.

Session Objectives

By the end of this session, participants will be able to:

1. Describe important elements of planning nutritionally and culturally appropriate menus for Hearth sessions.
2. Calculate calorie and nutrient requirements to determine optimal Hearth menu recipes/meals
3. Prepare and cook Hearth meals using the Hearth menu recipes.

Preparation

- Purchase a 'market basket' of local foods from the market and set out these foods.
- Review the PD foods/meals in line with foods identified during the PDI.
- Use actual prices to calculate the cost per gram of each food item and post this next to the food.
- Avail electronic or non-digital weighing scales that measure to 1 gram.
- Obtain copies of and familiarize yourself with the Kenya 'Food Composition Table'.
- Provide the soft copy of the Excel spreadsheet 'Menu Calculation Tool' for participants to install on their computers (if available). Know how to use this programme.

Print copies of 23.1, 23.2, 23.3, 23.4 and 23.5 Prepare basic cooking materials such as cooking pots, frying pans, bowls, cutting boards and cooking utensils.

Materials

- Blank flip-chart paper
- Market-survey findings
- Electronic or non-digital weighing scales that measure to 1gram.
- Basic cooking materials such as cooking pots, frying pans, bowls, cutting boards plates, spoons for dividing bulk foods, a sharp knife, and small containers (little plastic cups) etc.
- Kenya Food Composition Table (2008)
- Handout 23.1: Flip Chart 23 – Nutrients Required in the Meal
- Handout 23.2: Directions for the Menu-Planning Exercise
- Handout 23.3: PD Hearth Menu Exercise – Kenya Food Composition Table
- Handout 23.4: Sample Menu-Planning Form
- Handout 23.5: User Guide for the PD Hearth Menu Calculation Tool

Reference in CORE PD Hearth Guide: pg. 114 –119

Menu Design and Cooking (STEP 5)

STEPS

10 Min

1. Importance of Hearth Menu and Snack

Hearth is held for 12 days (six days a week), followed by 2 weeks of follow-up visits. The first goal of the two-week Hearth session is to rehabilitate the malnourished child. The hands-on nature of the session sets the stage for sustained behavior change which will be reinforced during the follow-up home visits (and later by the community). Keep the goal in mind while reviewing the following points.

Importance of the extra meal

At each session, ask the caregiver what she fed the child at regular meals in order to be sure the Hearth meal is 'extra'. After the child's recuperation, the mother, supported by the grandmother/caregiver, should enrich regular meals on a permanent basis, for example, with PD food Importance of snack during the hearth.

A snack provides nourishment for children while they play and the caregivers cook, reinforces the idea that children need to eat small amounts frequently and supplements the nutrients provided by the main menu.

When to weigh children and why

Children should be weighed on Day 1, Day 12, Day 30, Day 60, Day 90, Day 180 and 1 year later. It is also important to ensure that the growth-monitoring promotion (GMP) continues; weighing helps to confirm nutritional rehabilitation and to reinforce the new behaviors.

10 Min

2. Menu preparation

Based on the PDI findings and the market survey, menus will be designed which enable children to be rehabilitated quickly from malnutrition. Emphasize that the extra menu must include a snack, and sufficient intake of protein and calories.

Show Hand out 23.1, 'Nutrients required in the Meal'. Emphasize the importance of Hearth menus meeting these requirements. Explain the motivational effect when caregivers see improvements in the child's health and behavior. The child's appetite will return and his/her overall mood and energy will improve within 10 to 12 days. Families begin to see that food and caring practices are making a difference and encourages them to continue the new practices. Explain that the first step in menu planning is for the volunteer or supervisor to do a market survey. The purpose of this is twofold:

- 1) To reinforce the idea that the PD and other nutritious foods are locally available; and
- 2) To ensure that the menus planned will be affordable for caregivers to prepare at home. The market survey results will be used to create menus. The Kenya Food Com- position Table will also be needed for menu preparation.

These may be available through the Ministry of Health, Kenya, <http://www.nutrition-health.or.ke/programmes/healthy-diets-physical/food-composition-tables/>

30 Min

3. PD Hearth menu calculation using Food Composition Tables

Menu calculation for PD hearth session, participants have to use the Kenya food composition tables and if not available, refer them to Handout 23.3 (PD Hearth Menu Exercise – Food Composition Table). Explore together how the outline of the table is based on 100g of foods as listed. The food table is made in a way that one can tell either the 100g edible portion is cooked or is raw and if raw, it is important to consider the portion which is not edible e.g., eggs, fruits like bananas, avocado etc.) The food groups are divided according to alphabetical order and listed down on the left, while nutrients are across the top starting with macro nutrients (kcal and protein) followed by micro nutrients (iron, zinc, Vitamin A and Vitamin C).

Using a flip chart based on Handout 23.3, ask the participants to locate a specific food/ingredient (for example, Amaranthus leaves). Guide them through filling a table on the flip chart the nutrient composition (i.e., Kcal, protein, vitamin A, iron and zinc) of 100g of Amaranthus leaves. Fill on the flip chart together. For now, don't worry about the columns named 'home measure' and 'cost/amount'.

Pick another food/ingredient and fill on the table, this time for 140g of the food. Help the participants decide how to fill in the table.

For example, 140g sorghum flour:

100g = 361kcal (level of nutrient in food = amount of nutrient in 100 g * number of grams used)

100 = 361kcal

140 = ?

140 = 361 kcal/ 100

140 = 505.4 kcal

Repeat the same calculation for protein, Vitamin A, iron and zinc in 140g sorghum flour

Fill in the rest the values in the table on the flipchart, making sure that the participants understand how to work out the calculations.

Choose one more ingredient and show the same calculation using a quantity less than 100g. For example, 40g of fresh camel meat:

100g = 188kcal

40 g = ?

40g = 188 kcl/100

40g = 75.2 kcal

Menu Design and Cooking (STEP 5)

Fill in the remaining values for the other foods. Make sure that the participants understand how to tackle the calculations.

Add the total values for each of the nutrients. Compare the totals with the requirements for the optimal Hearth menu.

What is missing in this sample menu?

What foods might supply those nutrients?

Look at the food tables under Vitamin A for foods high in that vitamin. Are any of those foods available and affordable in the community?

A child's stomach has a capacity of about 200–250g (the size of a child's fist). The total quantity of the menu cannot exceed that amount. Remember that the menu must also include a snack as well as the meal. What could be added to this meal to reach the total quantity of the menu?

The table below is not for a sample menu to be copied for PD Hearth menu designs; it is only an example for menu calculation.

Food	Home Measure	Quantity g	Calories Kcal	Protein g	Vit. A μ g RAE	Vit. C mg	Iron mg	Zinc mg	Cost/amount
Millet, whole grain		140	505.4	16.24	28	0	11.2	4.34	
meat, fresh		40	75.2	6.96	0	0	0.48	1.16	
Amaranth leaves picked, boiled, drained		75	28.5	2.93	231.75	24.75	3.975	0.55	
TOTAL		255	609.1	26.13	259.75	24.75	15.7	5.55	
Hearth Requirements		200–250	600–800	25–27	300	15–25	10	3–5	

Ways of enhancing nutrients in foods in addition to selecting high calorie, protein, vitamin, or mineral-rich foods, various cooking methods could be promoted to improve the nutrient value of certain foods (e.g., boiling vs. drying/roasting)

Germination of cereal grains and pulses

1. Sort and clean cereal grains.
2. Soak for 1 day.
3. Drain and place in a sack or covered container.
4. Store in a dark, warm place for 2-3 days until grain sprouts.
5. Dry sprouted grains in the sun.
6. Grind and sieve the flour.

Fermentation:

1. Grind cereal grain into flour.
2. Soak flour in water (3 cups of flour to 7 cups of water).
3. Leave to ferment for 2-3 days.
4. Cook into porridge.

4.5 HRS

4. Small-group menu-preparation and cooking activity

Divide the participants into groups of 3 or 4

Provide each small group with Handout 23.2 (Directions for menu preparation), Hand-out 23.4 (Sample Menu-planning form) and Handout 23.5 No handout 23.5 user guide (User Guide for the PD Hearth Menu Calculation Tool). The Kenya food composition table or Handout 23.3: PD Hearth Menu Exercise.

Each group goes to the 'market area' (the place where the food is spread out along with the containers and utensils) and takes foods for their menu based on the PDI findings and the market survey. The menu includes one snack and the meal.

Groups use the 'Food Composition Table' to calculate nutrients and complete the menu-planning form. The snack must be included. It may take several adjustments to get the menu right.

Each group takes the amount they think a small child would eat. (Remember that a child's stomach is no larger than the child's fist.) Have a group member note the cost per gram of the food the group takes.

Multiply the cost per gram of each food item by the number of grams used. Calculate the cost of the menu. After weighing the group's choices, place them on a plate.

Using common household measures, such as bowls, cups, tins, and spoons, measure the portion each child will eat. This will be the serving size that each child receives during the Hearth sessions.

Note: If participants have computers with the Excel spreadsheet – menu calculation tool, they can do the menu calculation using the spreadsheet. However, all participants must be able to use the 'Kenya Food Composition Table' and do the calculations manually because they will train others who will not have computer access. Ensure that local foods are entered into the spreadsheet before it is distributed to participants to load onto their computers.

Menu Design and Cooking (STEP 5)

Excel instructions

Use an LCD projector to introduce the Menu Calculation Tool (Excel document) and to orient the participants on how to use the tool. See Handout 23.5 'User Guide for the PD Hearth Menu Calculation Tool' for instructions. Ensure that the cost of ingredients (per 100 grams) in the master sheet (master sheet found in the excel sheet) is updated based on the local market survey.

Click on the worksheet Menu Day 01 and use drop down option to insert food group and ingredients. Then enter the quantity of each ingredient to be used. The levels of nutrients will be calculated. Compare the total amounts for each nutrient with the requirements of Hearth menus noted in red. Make adjustments to the menu as needed to adjust the levels of nutrients to attain the food requirements.

Convert the cooked amount of food to a raw amount. Demonstrate how to do this. When cooked, some foods either increase or decrease greatly in volume. For example, cooked rice has a volume about three times greater than raw rice; cooked beans, lentils and pulses are about two and half times greater than raw. To convert cooked food in grams to raw food in grams, divide or multiply by the difference factor; for example,

100g of cooked rice \div 3 = 33.3g of uncooked rice

Each group should convert all the ingredients in their menu to raw amounts using conversion factors found in the Kenya Food Composition tables.

Calculate the cost of the ingredients using the cost per gram of each food, then add up the total cost for the entire menu.

If the cost seems too high for a household, look for less expensive sources of food. For example, which meat might be too costly to substitute, with groundnuts or another source of protein commonly available in the community.

Change the weights of the ingredients to household measures

When cooking at home, people do not usually talk about grams or even weigh foods. So, the grams must be changed to household measures. Measure the quantity of each ingredient weighed into a common household measure (cup, spoon, tin, palm of hand, etc.).

Demonstrate how to do this with one ingredient, such as rice. Weigh 33.3g of raw rice and put it into a household measure. Write the household measure on the calculation sheet (the sample menu table discussed earlier). Do the same for each ingredient.

This is the amount of the raw ingredients required for each child at each Hearth session. To calculate the total amount of ingredients required for all the children, multiply the measure of each ingredient by the number of children in the Hearth session plus an extra amount equivalent for 2 children.

Example: There are 6 children in 1 Hearth session. The menu uses 33.3 g uncooked rice per child. The whole recipe would require 200gms of uncooked rice.

$33.3\text{g} \times 6 = 199.8$ which is approximately 200 g

When all group members are satisfied with the calculations on nutrients and cost, fill in a clean copy of the menu-planning form (Handout 23.4) and demonstrate how to display the nutrients on the plate

Facilitators should work actively with the groups to guide on the development of a menu and calculate nutritional composition (micronutrients, calories and protein) for each menu. Verify that each proposed menu meets nutrient requirements for recuperative feeding (If laptops are available, each group may have one person calculate the menus with the Excel Programme while others do the manual calculation.)

After the groups have finalized their Hearth menus, they can start cooking/ preparing the meal and snack guided by the menus they developed.

60 Min

5. Menu Presentation

Reconvene the large group once all small groups have finished cooking. Ask each group to measure out the portion (serving size) for one child using local measures that the caregivers will use to serve each child during the Hearth sessions. Have each small group show their final plate and menu- planning form, explain their menu, and point out the difficulties they encountered and the possible solutions they identified. Guide discussion on each proposal.

Discussion guide questions

Does the menu contain the correct protein, calorie and micronutrient composition? Is the quantity (volume) of food in the proposed menu a realistic amount for a child to eat? (This has to be visualized, recalling that a child's stomach is the size of the child's fist.) Does the menu include PD foods? Does the menu include locally available and accessible foods? Does the menu include a snack? Is the cost per serving realistic for a very poor family? (While caregivers are not necessarily expected to replicate the exact menu at home, they should be able to afford all the ingredients in order to serve them regularly to the child.) If a child finishes all the food served, should he or she be offered more? (Yes, but not another whole portion.

NOTE: At the end of the PD Hearth sessions, the CHPs should visit the home and talk to the caregiver to confirm that the child is receiving 3 other meals and a snack at home each day while attending Hearth. When not attending Hearth, a child 6–8 months of age should be receiving two meals and two snacks plus breastfeeding each day, and a child 9–24 months of age should receive 3 meals and two snacks daily plus breastfeeding. (The Hearth meal is an extra meal)

Following the discussion, have the participants taste the meals and select at least two best meals as a group, considering the sub-session on Characteristics of a Good Menu

Note: Caregivers and grandmothers from the community can be asked to join the meal tasting as a way of introducing them to what they will learn in the Hearth sessions.

Menu Design and Cooking (STEP 5)

6. Characteristics of a Good Menu

- Include PD foods (based on the PDI findings)
- Low in cost (affordable based on PDI and market survey)
- Meet nutrient, calorie and protein requirements.
- Small enough in volume that a child could eat another meal at home soon after (250g–300g)
- Include a snack (to increase a child's appetite)
- Based on local context and culturally acceptable (use locally available and accessible foods)
- Have good consistency (does not run off a spoon like water, but is thicker)
- Does not consist of foods that are too chunky or bulky, as that makes it difficult for children to consume.

Handout 23.1: Flip Chart 29 Nutrients Required in the Meal

Nutrient	PD Hearth Menu nutrients	Recommended daily Allowance for children 1-3 years	% Of RDA met by PD Hearth menu**
Calories	600–800 (500–600*)	1200-1410	50-57% and 42%*
Protein	25–27g (18–20g*)	25gms	100%
Vitamin A	300 µg RAE (RAE=retinol activity equivalent)	400 µg	75%
Iron	8–10mg	6 mg	100%
Zinc	3–5mg	4.1	75%-100%
Vitamin C	15–25mg	30mg	50%-83%

*Source: Ministry of Health. August 2014. Kenya National Nutrition Guidelines Nutrition and HIV/AIDs 2nd Ed

*Amounts in parentheses are the minimum for an area with food insufficiency; recuperation will take longer with these amounts (see **CORE PD Hearth Guide, pg. 114**).

Note: The Vitamin A requirement has been updated since the publication of the CORE PD/ Hearth Guide and PD Hearth Addendum to use the currently accepted measure of Retinol Activity Equivalents (RAE). Make sure that the food composition tables you use lists vitamin content as µg RAE, not RE or IU (conversion rate: 1µg RAE = 3.3 IU).

Directions for the Meal Preparation Exercise

Handout 23.2: Directions for the Meal Preparation Exercise

Each group will go to the 'market area' (where the food and utensils are laid out) and take different foods for its menu. The menu includes one snack as well as the meal. Take the amount you think a small child would eat. Remember that a child's stomach is no larger than the child's fist. Note the cost per gram of the food you take.

After weighing your group's choices, put the foods on a plate.

Use the 'Kenya Food Composition Table' to calculate nutrients and complete the menu-planning form. (Refer to the CORE PD H Guide, page 116, which discusses how to use a food composition table to calculate nutrients.) The snack must be included. It may take several adjustments to get the menu right.

Calculate the cost per gram used of each ingredient. Then add up the total cost of the menu for one child.

Using common household measures, measure the portion each child will eat. This will be the serving size that each child receives during the Hearth sessions.

Convert the cooked amount of food to a raw amount. For rice, divide the cooked volume by 3 to get the uncooked measure. For example, 60g of cooked rice divided by 3 equals 20g of uncooked rice.

Conversion of cooked food in grams to raw food in grams:

Cooked rice, divide by 3

Cooked beans, lentils, pulses, divide by 2.5

Cooked porridge, divide by 2.5

Cooked green leaves, multiply by 2

Change the gram amounts to household measures by measuring the quantity of each ingredient weighed into a common household measure (cup, spoon, tin, palm of hand, etc.).

For example, weigh out 30g of uncooked rice and put it into a cup that would be found in households or measure it by the handful, if that is more common.

For cooked green leaves (leafy vegetables), yield factor was found to range from 0.8 – 1.2. Hence a median value of 1 (one) is the yield factor for vegetables

Source: FAO/Government of Kenya. 2018. Kenya Food Composition Tables. Nairobi

Food Composition Table (per 100g of edible portion)

Handout 23.3: PD Hearth Menu Exercise**Food Composition Table (per 100g of edible portion)**

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
1. Grains, Roots, and Tubers								
Rice steamed, white	131	2.20	0	0	0.4	0.6		10
Rice, brown, boiled	135	3	0	0	0.7	0.7		1
Rice, white, boiled	133	2.8	0	0	1.0	0.4		1
Rice, white, fried	370	6.81	0	0	1.6	1.2		10
Rice, white, raw	355	6.80	0	0	1.2	0.5		10
Rice, white, soaked	370	6.81	0	0	1.6	1.2		10
Sorghum flour	361	7.87	0	0	3.0	1.4		5
Sorghum, whole grain, boiled	153	4.6	2	0	3.6	0.6		1
Steamed sticky rice (white), grilled	229	4.60	0	0	0.1	0.2		10
sticky rice (white), steamed	229	4.60	0	0	0.3	1.0		10
Sweet Potato, boiled	101	1.7	789	15	1.7	0.3		1
Taro, boiled	100	1.9	4	3	0.9	0.2		1
Wheat flour, white	347	10.7	0	0	2.0	4.0		1
Wheat noodle (waiwai), instant	456	10.5	0	0	1.6	1.8		10
Yam, boiled	101	1.7	2	5	1.0	0.2		1
2. Legumes and Nuts								
Beans, kidney, boiled without salt	127	8.67	0	1	2.2	1.0		5
Beans, raw	32	2.4	54	18	1.0	0.3		1
Beans, yellow, cooked, boiled without salt	144	9.16	0	2	2.5	1.1		5
Cashew nut, raw	589	20	0	0	6.4	4.6		7
Chickpea, boiled without salt	164	8.86	1	1	2.9	1.5		5
Chickpea, dry	364	19.3	3	3	6.2	3.4		5
Coconut water	22	0.3	0	2	0.1	0.1		1

PD Hearth Menu Exercise

DAY 7

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
Coconut, mature, fresh, raw	387	3.2	0	2	2.5	0.9		1
Cowpea, Leafy tips, boiled and drained	22	4.67	29	18	1.1	0.2		5
Cowpea, seeds, black, dried, boiled	116	7.73	2	0	2.5	1.3		10
Groundnut, dried, raw	578	24.1	2	1	4.3	1.9		1
Groundnut, dried, roasted (also gnut flour)	567	25.8	0	0	4.6	1.7		6
Groundnut, fresh, boiled	236	10.8	0	0	1.9	1.0		6
Groundnut, fresh, roasted	374	17	0	0	3.0	1.1		6
Groundnut, seeds, dried, raw	577	24.8	0	1	2.3	2.8		1
Lentils, boiled without salt	116	9.02	0	2	3.3	1.3		5
Lentils, raw	353	25.8	0	0	7.5	4.8		5
Mongogo Nut, Bok Nut	659	26.00	0	0	3.7	4.0		
Mung Bean, boiled without salt	105	7.02	1	1	1.4	0.8		5
Mung Bean, dried	324	22	19	0	8.0	0.8		2
Soya bean, boiled without salt	173	16.64	0	2	5.1	1.2		5
Soya bean, dried, raw	397	33.2	9	0	8.3	4.7		1
Soya bean, dry roasted	451	39.58	0	5	5.0	4.8		5
Soya bean, roasted without salt	471	35.22	0	2	3.9	3.1		5
3. Dairy Products (Milk, yoghurt, cheese)								
Breastmilk, human, mature, raw	69	1.1	62	1	0.2	0.3		1
Milk UHT, Thaiden mark brand (non-fortified)		3.30	41	0	0.1	0.3		10
Milk, cow, powder, whole	492	25.3	295	12	0.7	4.0		1
Milk, cow, whole, raw	75	3.7	39	2	0.1	0.4		1
Milk, goat, whole, raw	69	3.4	35	2	0.1	4.0		1
Milk, instant, Annum brand (fortified)	77	3.20	93	22	2.6	2.2		10

PD Hearth Menu Exercise

DAY 7

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
Yoghurt, drinking, foremost brand	84	1.50	14	3	0.1	0.3		10
Yoghurt, whole milk, natural	75	3.5	33	1	0.1	4.0		1
4. Flesh Foods (Meat, Fish, Poultry, and liver/organ meats)								
Anchovy (small fish), fillet, raw	123	18.4	15	0	3.3	1.7		1
Anchovy, fillet, grilled	668	27.6	20	2	3.8	2.5		1
Anchovy, fillet, steamed	542	22.4	16	2	2.9	2.1		1
Beefball, blanched	84	16.5	7	1	5.0	0.0		10
Beef internal organ barbecue	94	14.0	2357	9	5.0	2.0		10
Beef intestine, raw	109	16.4	10	0	3.1	2.0		10
Beef liver, grilled	133	20.3	3841	18	10.1	3.9		10
Beef liver, pan-fried	175	26.52	7744	1	6.2	5.2		5
Beef liver, raw	135	20.36	4968	1	4.9	4.0		5
Beef lung, raw	84	16.0	95	6	6.1	1.7		10
Beef spleen, raw	95	18.2	103	29	0.7	2.1		10
Beef stomach, raw	102	11.0	0	0	1.9	1.3		10
Beef, blanched	150	20.0	2	0	3.0	5.0		10
Beef, dried, grilled	479	38.3	3	0	11.8	3.9		10
Beef, dry, fried	479	38.3	3	0	11.8	3.9		10
Beef, grilled	190	38.5	3	0	4.9	7.6		10
Beef, ground, 20%fat, pan-broiled	246	24.04	0	0	3.6	6.1		5
Beef, ground, 20%fat, raw	254	17.17	0	1	1.9	4.2		5
Beef, raw	273	17.2	3	0	2.3	5.3		10
Chicken, roasted	210	23.8	0	0	0.8	1.5		10
chicken gizzard, raw	102	20.2	34	3	3.1	3.2		10
Chicken heart	112	15.8	75	6	4.0	5.5		10
Chicken Liver	114	16.9	3296	18	9.0	2.5		9
Chicken liver, boiled	121	18.6	3178	14	7.3	3.2		10
Chicken liver, grilled	121	18.6	3273	14	7.3	3.1		10
Chicken liver, raw	121	18.6	3710	14	7.3	3.0		10

PD Hearth Menu Exercise

DAY 7

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
Chicken, boiled	193	28.6	5	1	0.6	1.0		10
Chicken, cooked	285	26.9	39	0	1.4	1.8	133	6
Chicken, flesh only, raw	136	20.6	10	0	1.2	1.0		1
Chicken, raw	186	17.3	3	0	0.5	1.0		10
Cricket	127	12.90	0	0	9.5	0.0		11
Dried small fish (usipa), cooked with salt	125	17	0	0	3.3	9.1		6
Duck, roasted	373	18.5	115	0	1.3	2.1		10
Fermented fish with bone	103	13.3	3	0	5.5	3.6		10
Fermented fish, sour, fried	108	19.5	1	0	2.1	2.4		10
Frog legs, raw	73	16.40	15	0	1.5	1.0		5
Lamb, composite of retail cuts, cooked	256	24.54	0	0	1.9	4.7		5
Lamb, meat, raw	217	17.2	10	0	2.3	3.1		1
Mackerel, Pacific and jack, cooked dry		25.73	23	2	1.5	0.9		5
Mackerel, raw	133	21.1	16	2	1.8	0.5		1
Mussels, boiled	33	3.1	208	0	2.9	1.9		2
Mutton/Lamb Liver	150	19.3	8250	20	6.3	4.0		9
Nile tilapia fish, raw	96	20.1	0	0	0.6	0.3		10
Nile tilapia, roasted	128	26.2	0	0	0.7	0.4		10
Pork blood, boiled	32	7.90	26	0	25.9	0.1		10
Pork liver, grilled	125	19.2	4242	19	15.5	5.3		10
Pork liver, raw	125	19.2	6291	25	15.5	5.6		10
Pork sausage, grilled	369	19.6	14	2	1.2	2.5		10
Pork skin, raw	320	19.8	6	0	2.1	0.3		10
Pork spleen raw	87	16.1	241	26	1.0	2.3		10
Pork, boiled	204	33.0	0	0	1.5	1.3		10
Pork, fresh, cooked	201	27.51	1	0	1.0	0.1		5
Pork, grilled	249	26.2	0	0	2.5	1.8		10
Pork, meat, approx. 24% fat, raw	289	14.5	0	0	2.0	3.2		1

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
Pork, meat, approx. 40% fat, raw	405	12.6	0	0	1.9	3.2		1
Pork, raw	116	21.8	0	0	1.0	1.0		10
Pork, shredded, Chinese style	357	43.1	0	0	17.8	1.3		10
Prawns or shrimps, cooked without salt	37	22.78	0	0	0.3	1.6		5
Rabbit, meat, raw	142	20.7	10	0	0.9	1.7		1
Rabbit, stewed	206	30.38	0	0	2.4	2.4		5
Short bodied mackerel fried	236	25.7	26	2	2.4	1.0		10
Short bodied mackerel, roasted	122	21.4	27	5	1.4	0.6		10
Siamese mud carp, grilled	124	21.1	9	1	0.6	1.5		10
Snail, pond, river	74	12.10	0	0	8.7	0.0		11
Tilapia, cooked dry heat	128	26.15	0	0	0.7	0.4		5
5. Eggs								
Egg, duck, whole, boiled	150	11.8	169	0	3.4	1.2		10
Egg, hardboiled	155	12.58	149	0	1.2	1.1		5
Egg, hen, whole	159	13.2	160	0	2.8	1.1		10
Egg, hen, whole, boiled	170	13.9	164	0	3.5	1.2		10
Egg, raw	139	12.1	207	0	2.4	1.3		1
Hen, egg, fried	196	13.6	219	0	1.9	1.4		10
Omelet, duck, egg	183	12.6	365	0	3.2	1.0		10
Omelet, hen, egg	259	7.00	255	0	2.2	1.6		10
6. Vitamin A rich fruits and vegetables								
Amaranth, boiled	21	2.11	139	41	2.3	0.9		5
Bean, leaves, fresh, cooked, with salt	14	1.4	192	12	1.1	0.1		6
Carrot, boiled	33	0.9	1137	3	0.7	0.6		1
Carrot, raw	35	1	1201	7	0.9	0.8		1
Cassava, fresh leaves, cooked with salt	20	2	261	12	1.6	0.6		6
Cassava, fresh leaves raw	98	0.9	1733	370	5.6	5.0		1

PD Hearth Menu Exercise

DAY 7

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
Chinese cabbage blanched	21	1.70	244	33	1.6	0.2		10
Dark green leaves, fresh	48	5	950	100	4.0	0.8		2
Dark green leaves, fresh, cooked, with salt	18	1.1	401	17	0.5	0.1		6
Green amaranth, small, blanched	21	2.11	278	41	2.3	0.9		10
Green amaranth, small, fresh	35	3.60	510	49	3.1	1.2		10
Horse tamarind, young leaves	85	9.20	255	7	3.4	0.6		10
Mango, ripe fruit, raw	62	0.6	427	35	1.0	0.6		1
Moringa leaves boiled	91	8.8	699	0	4.8	0.7		1
Moringa leaves, raw	86	8.3	738	0	6.1	0.9		1
Morning glory/ swamp cabbage, blanched	22	2.08	520	16	1.3	0.2		10
Morning glory/swamp cabbage, fresh	31	2.90	457	28	3.3	0.5		10
Mustard green, blanched	19	2.27	708	14	1.1	0.2		10
Mustard green, fermented, sour	21	1.50	161	20	1.3	0.2		10
Mustard green, stem and leaves, boiled	22	1.70	249	43	1.5	0.1		10
Mustard leaves, fresh, cooked with salt	16	1.1	213	0	1.0	0.4		6
Mustard, fresh	28	2.20	317	57	2.5	0.2		10
Okra, leaves, cooked with salt	12	0.7	260	11	0.3	0.7		6
Papaya (pawpaw), fruit, ripe, raw	38	0.5	355	59	0.7	1.4		1
Pumpkin, boiled	20	0.5	201	5	0.2	0.2		6
Pumpkin, fresh leaves, boiled	11	0.6	298	11	0.5	0.4		6
Pumpkin, mature, fresh	49	1.30	170	15	0.7	0.9		10
Pumpkin, raw	36	1	250	15	0.8	0.2		2
Squash, raw	47	0.4	240	1	0.3	0.2		2

PD Hearth Menu Exercise

DAY 7

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
Squash, winter, all varieties, cooked without salt	0.89		261	10	0.4	0.2		5
Tamarind, young leaf, fresh	68	3.80	381	32	1.5	0.5		10
Taro, leaves cooked without salt	24	2.72	212	36	1.2	0.2		5
Taro, young leaves, raw	30	2.4	389	52	2.0	0.4		1
Wild betal leaf bush	60	4.20	258	17	4.2	1.0		10
7. Other Fruits and Vegetables								
Apple, prink, fresh	63	0.50	14	2	0.2	0.0		10
Avocado, raw	149	1.6	20	16	1.1	0.6		1
Bamboo shoots, cooked, boiled, with salt		1.53	0	0	0.2	0.5		5
Bamboo shoots, cooked, boiled, without salt		1.53	0	0	0.2	0.5		5
Banana, flowers, fresh	38	1.60	34	10	1.1	0.3		10
Banana, ripe, raw	100	1.3	19	10	1.0	1.1		1
Banana, ripe, yellow	105	1.00	15	12	0.4	0.1		10
Banana, ripe, yellow, boiled	105	1.00	13	10	0.4	0.1		10
Bean sprouts, fresh	46	4.30	5	23	1.4	0.5		10
Cabbage, blanched	29	1.50	8	32	1.0	0.3		10
Cabbage, boiled	19.8	1.3	11	21	0.4	0.2		1
Cabbage, common, fresh	29	1.50	8	32	1.0	0.3		10
Cabbage, raw	26	1.6	10	54	0.6	0.2		1
Cauliflower, boiled	28	2.7	1	47	0.8	0.4		9
Chayote, boiled	21	0.60	6	10	0.4	0.3		10
Chayote, fruit, fresh	21	0.60	6	10	0.4	0.7		10
Chilli pepper, hot, red, fresh	75	3.00	156	142	1.2	0.4		10
Cilantro	23	2.13	337	27	1.8	0.5		2
Coriander, fresh	33	2.50	431	34	2.6	0.2		10
Cucumber, fresh	23	0.80	9	12	0.4	0.2		10

PD Hearth Menu Exercise

DAY 7

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
Cucumber	95.5	0.7	3	0	0.5	0.2		1
Dill, fresh	34	3.10	201	40	2.3	0.7		10
Eggplant, boiled without salt	35	0.83	2	1	0.3	0.1		5
Eggplant, raw	28	1.1	12	6	0.9	1.6		1
Eggplant/brinjal, green, fresh	37	1.50	10	8	0.9	0.2		10
Fennel common leaves, fresh	42	2.50	867	23	2.3	0.2		10
Fig, raw	78	1.4	79	15	6.0	1.5		1
Garlic, fresh	51	2.10	0	10	0.7	0.4		10
Garlic, raw	136	6.1	0	18	1.5	0.6		1
Ginger, raw	72	1.9	0	5	1.1	0.4		9
Guava, fruit, raw	58	1	95	281	1.4	1.8		1
Hairy basil, fresh	39	2.80	279	18	2.1	0.6		10
Jackfruit, raw	94	1.7	18	9	0.6	0.1		2
Lemon grass, fresh	78	0.80	3	1	2.0	0.5		10
Lemon, fruit, raw	36	0.7	2	46	0.6	0.1		1
Lemon, juice	29	1.1	3	53	0.6	0.1		4
Light/Pale Green Leaves, fresh	23	1.5	47	40	0.5	0.8		2
Mango, unripen, fruit, raw	55	0.5	10	86	1.4	0.6		1
Mint, leaf	42	2.90	467	84	4.1	0.8		10
Mushrooms, portabella, grilled	29	3.28	0	0	0.4	0.7		5
Okra, fresh, boiled	21	1.1	38	5	0.8	0.4		6
Okra, fresh, raw	31	1.7	72	29	0.9	3.0		1
Onion	50	1.60	0	8	0.7	0.2		10
onion, cooked	44	1.36	0	5	0.2	0.2		5
Onion, raw	32	1.1	1	7	0.5	0.2		1
Orange, raw	45	0.8	17	47	0.1	0.1		1
Orange, sweet, fresh	52	0.50	6	65	0.4	0.7		10
Pakkhayeng, raw	32	1.50	18	5	5.2	1.0		10

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
Passion Fruit	94	2.4	64	17	1.2	0.0		3
Pineapple, raw	56	0.4	15	31	0.5	2.2		1
Pomelo(grapefruit), raw	34	0.8	40	44	0.6	0.1		4
Radish, boiled	24	1.2	0	9	0.5	0.4		9
Radish, raw	18	0.9	0	17	0.4	0.4		9
Rumbutam, fresh	69	0.90	0	43	0.7	0.1		10
Shallot, bulb	67	1.70	1	9	0.9	0.3		10
Spring onion, fresh	44	2.20	475	42	2.3	0.4		10
Starfruit	32	0.60	10	29	0.7	0.0		11
Tamarind, fruit, raw	60	2.2	2	10	0.7	0.0		1
Tiliacoratri and radiels	95	5.60	329	141	7.0	0.6		10
Tomato, fresh	25	1.00	88	29	0.9	0.2		10
Tomato, raw	21	1	127	29	0.9	12.0		1
Tomato, red, ripe, cooked	18	0.95	24	23	0.7	0.1		5
Watermelon, fruit, raw	30	0.5	62	7	0.2	0.1		1
Yard long bean, green, fresh	40	2.60	41	20	0.8	0.5		10
8. Fats and Oils								
Butter, cow's milk	700	1	1060	0	0.2	0.1		1
Coconut oil	900	0	0	0	1.5	0.0		1
Ghee, cow	898	0	0	0	0.2	0.0		9
Groundnut oil	903	0	0	0	0.0	0.0		1
Mustard oil	900	0	0	0	0.0	0.0		9
Palm oil	895	0	0	0	0.4	0.0		1
Vegetable oil	884	0	0	0	0.0	0.0		4
9. Miscellaneous								
Fermented fish, liquid	13	1.20	3	0	2.9	0.1		10
Fish sauce	48	5.40	5	1	2.4	0.2		10
Honey	322	0.3	0	2	0.6	2.0		1
Horse tamarind, seeds	152	11.8	34	2	4.3	1.4		10
Jaggery	383	0.4	160	0	11.1	0.0		8
Lemon, juice, fresh	24	0.50	1	25	0.1	0.1		10

PD Hearth Menu Exercise

DAY 7

Food (English)	Kcal	Protein (gms)	Vitamin RAE (mcg)	Vitamin C (mg)	Iron (mg)	Zinc (mg)	Cost (KES)	Source* ()
Oyster sauce	73	2.90	6	7	1.1	0.1		10
Pumpkin seeds, without shell, roasted	594	25.6	0	0	6.0	8.0		11
Salt	0	0	0	0	0.3	0.1		5
Sesame seeds, white, roasted	682	26.1	0	0	13.0	7.2		10
Shrimp paste	85	4.60	21	0	2.2	1.1		10
Sprinkles (per sachet)	0	0	300	30	12.5	5.0		8
Sugar (white), not fortified	369	0	0	0	0.2	0.1		1
Turmeric, dried	335	6.9	1	0	33.2	3.8		9
Vinegar	27	0.2	0	0	0.5	0.0		1
10. Additional Foods								
Banana Porridge	105.3	0.6	65.6	9	0.4	0.1		7
Cassava Stiff Porridge	140	2.7	1.4	7	1.2	0.6		7
Coconut juice, fresh	37	0.10	0	5	0.1	0.2		10
Coconut milk	185	1.90	0	2	0.6	0.5		10
Deep fried banana with powder	373	2.00	11	8	0.4	0.1		10
Maize Porridge (with oil)	414.4	16.9	0.6	1	5.6	2.6		7
Porridge, white rice, boiled	59	4.10	0	0	0.1	0.2		10
Soy milk, Lactasoy brand	82	2.50	40	0	0.4	0.1		10

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Sample Menu Planning Form

Handout 23.4: Sample Menu Planning Form

Menu A:

Food	Home Measure	Quantity (g)	Calories (Kcal)	Protein (g)	Vit. A (µg RAE)	Vit. C (mg)	Iron (mg)	Zinc (mg)	Cost/amount	Quantity for Raw Amount
Hearth Requirements		250-300	600-800	25-27	300	15-25	8-10	3-5		

Menu B:

Food	Home Measure	Quantity (g)	Calories (Kcal)	Protein (g)	Vit. A (µg RAE)	Vit. C (mg)	Iron (mg)	Zinc (mg)	Cost/amount	Quantity for Raw Amount
Hearth Requirements		250-300	600-800	25-27	300	15-25	8-10	3-5		

Handout 23.5: User Guide for the PD Hearth Menu Calculation Tool

The PD Hearth Menu Calculation Tool is developed to aid in designing low cost and nutrient dense menus for Hearth sessions using local foods/ingredients that are easily accessible and available to community members. Based on the PDI findings and the market survey, 2-4 Hearth menus with a snack and a meal for each menu will be developed for each community using PD food(s) and locally sourced ingredients. To quickly rehabilitate children from malnutrition, Hearth menus need to meet optimal calorie and nutrient requirements. Particularly, this tool is useful in checking whether the meal and snack meet the requirements. Also, it simplifies other calculations such as the total cost and quantity of ingredients required for all the children attending Hearth as these can be generated automatically.

The PD H Menu Calculation Tool has 6 tabs/worksheets: Introduction; Instructions; Master; Menu Day 1; Menu Day 2; Menu Day 3.

Tab 1 – Introduction:

Contains background information on the rationale for the Tool including who should be using this Tool and how it should be used.

Tab 2 – Instructions:

Contains a step-by-step detailed guide on how to use the Master and Menu worksheets. Please refer to this worksheet as you design the Hearth menus.

Tab 3 – Master

Contains a Food Composition Table with the nutritional breakdown of 100 grams of edible portions of foods in terms of energy (Kcal), protein (g), Vitamin A RAE (mcg), Iron (mg) and Zinc (mg). The foods are categorized in 10 food groups:

1. Grains, grain products and all other starch staples.
2. Legumes, nuts and seeds.
3. Dairy and dairy products.
4. Flesh foods.
5. Eggs.
6. Vitamin A rich fruits and vegetables.
7. Other fruits and vegetables.
8. Fats and oils.
9. Miscellaneous
10. Additional foods (In cases where local food items are missing from this Master list, missing foods can be added to 'Additional foods' group by copying the energy and nutrient values from another food composition table).

Tab 4 – Menu Day 1

Contains a Menu Planning Form (calculates the menu requirements for ONE CHILD) and a table that allows automatic calculation of the cost and quantity of each ingredient required in the menu to feed 'X' number of children, depending on the number of participating children in Hearth sessions. The total cost of the menu for all children is also given.

Tabs 5 and 6

User Guide for the PD Hearth Menu Calculation Tool

Menu Day 2 and Day 3: Contains additional worksheets (same format as Menu Day

- 1) to create different menus. Most Hearth sessions should have at least 2 Hearth menus. You should consider changes in food availability or affordability at different seasons (e.g., dry vs. rainy season) when designing Hearth menus. For example, you may want to create a menu for each season. Also, you could inform caregivers of foods you could replace certain ingredients with so that they will be able to continuously use the Hearth menu to feed their children during various seasons.

Step-by-Step Instructions:

Based on the PDI findings and the market survey results, create Hearth menus.

Step-by-Step Instructions:

Based on the PDI findings and the market survey results, create Hearth menus.

1. (Master worksheet) Enter cost of each food in Cost for Raw Foods column identified from the market survey. Please note that cost should be entered per 100g of edible portion of the raw food (See Step 1 of the Instructions sheet for an example)
2. (Menu Day 1 worksheet) In the Menu Planning Form, use the drop-down option to select the food group of choice and then use the drop-down option to select the ingredient/food under the Food column, placing each ingredient under appropriate headings (i.e., Meal or Snack). (Menu Day 1 worksheet) Enter quantity in grams for each ingredient under the Quantity (grams) column. Please note that this amount is 'cooked' values in grams that will be used in the menu for ONE child. See Step 3 of the Instructions sheet for how to estimate the amount of ingredient keeping in mind the cooked/raw conversions.
3. (Menu Day worksheet) Repeat Step 1 and 2 for each food you will use. You can also enter the household measure for the ingredients for the raw amounts indicated in the Raw Quantity (grams) column.
4. (Menu Day worksheet) Once you finish entering all the ingredients/foods for the menu, you can check at the bottom of the Menu Planning Form to see whether you have met or exceeded the Hearth menu requirements.
 - a. The total values for each nutrient, cost, and 'cooked' quantity of ingredients in the menu for one child are calculated automatically in the row number 36. Depending on the values displayed under each column, you may need to adjust quantity of each ingredient or select different ingredient to develop optimal Hearth menus.
 - b. You can check by comparing the total values for each column against what is displayed in each column heading. Or, in the subsequent row, any discrepancies or differences between the total value of each nutrient in the menu and the amount of the same nutrient required in Hearth menu are available. If the menu meets all the nutrient requirements, then all the numbers in red/bracket will be "0". Try to adjust the quantities and/or types of foods included in the menu until you reach something very close to the required amount of nutrient.

- c. The values in red/bracket indicate that these nutrients need to be increased by adding foods/ingredients that are high in these nutrients. For example, if the cell under the Iron column has "(3.50)", then you would need to increase amount of iron by 3.50 mg, by increasing quantity or adding iron rich foods like chicken or fish, still being mindful of the cost.

- d. Also, the total quantity of 'cooked' foods should not be too much considering that a child has a small stomach (the size of a child's fist) and will not be able to eat a large volume of food at one sitting. Thus, depending on the total quantity (grams), you may need to select more nutrient dense food. For example, instead of selecting rice you may opt to select groundnut which will have more calories and proteins per gram basis. 5 to 6). (Menu Day worksheet) To calculate the total cost and quantity of ingredients required for the total number of children participating in Hearth sessions, enter the number of children who will be eating in a designated cell in the table below the Menu Planning Form chart. Also, determine a household measure for raw food amounts required for each ingredient from the Raw Quantity in grams column so that volunteers will know how much of uncooked ingredients will be needed for the Hearth menu. See Step 5 of the Instructions sheet for additional details.

Session Objectives

By the end of this session, participants will be able to:

1. Review and demonstrate understanding of menu calculation process

Preparation

Print menu calculation test for each participant

Materials

Menu Calculation test

Activities

1. Hand out menu calculation tests for participants to complete. Collect the completed tests which will be marked by the facilitators and returned to the participants on the final day of the training.
2. Review agenda for today.

Session Objectives

By the end of this session, participants will be able to:

1. Define community mobilization.
2. List the 14 essential elements for PD Hearth implementation.
3. Explain the importance of PD hearth essential elements.

Preparation

Review Handout 25.1 and 25.2

Materials

- Handout 25.1: PD Hearth Essential Elements
- Handout 25.2: Essential Elements of PD Hearth – Detailed
- Observations and Key Questions
- Flip-chart paper, cut or torn in half
- A paper circle for each participant (four circles should fit easily on the half sheet of flip-chart paper without overlapping)

STEPS

5 Min

1. Explain that certain features of the PD Hearth approach are essential for success. Because children quickly recover, their families are motivated to continue the new behaviours. Ask participants to name any of these essential elements.

10 Min

2. Distribute Handout 25.1 and ensure that all 14 essential elements are named. Divide into pairs. Assign two essential elements to each pair. Each pair is to list the reasons its two elements are essential. Those who finish early can look at the other essential elements and discuss the reasoning behind them.

20 Min

3. Each pair explains to the group its two elements and the reasons they are essential.

Essential Elements of PD Hearth

20 Min

4. Discuss who is responsible for ensuring that PD Hearth in each community adheres to the essential elements. (C/SCHMT, community Health committee, or CHPs, depending on the element). Ask for examples. Present Handout 25.2: Essential Elements of PD Hearth - Detailed Observations and Key Questions, which can be used as a tool to monitor essential elements in a Hearth project.

10 Min

5. Based on the essential elements, have the participants respond to the following bottle necks: The Program wants to provide food for PD Hearth sessions.
 - Caregivers are busy, so they want to send their children but not attend the Hearth sessions themselves.
 - CHPs, caregivers, or grandmothers change the menu based on what they have at home and would like to cook.
 - Children 5-7 yrs. old are included in PD Hearth.

Handout 25.1: Essential Elements of PD Hearth

Several elements are essential to the implementation of an effective PD Hearth project. Experience has shown that these elements cannot be adapted, modified, or omitted without seriously diminishing the effectiveness of the programme.

1. **Actively involve the community throughout the process. Community leaders and a Community Health Committee (CHC) can provide support in organizing:**

- Weighing of all children in the target age group
- Recruiting CHPs
- Conducting the PDI
- Contributing materials, utensils and food for the sessions
- Encouraging other community members, including key influencers regularly like grandmothers to support the families with malnourished children as they adopt new practices.

Grandmothers often play a major role in childcare and feeding and act as advisors in this area to younger women who seek their advice and expertise. Engaging grandmothers from the start of the PD Hearth implementation will facilitate the community's involvement and learning, as grandmothers are key influencers in addressing child malnutrition.

In the different steps of the PD Hearth process, grandmothers can participate as mobilisers, health committee members and/or CHPs, participants in focus group discussions on child care and feeding., During the PDI, they can participate in Hearth sessions with the caregivers and children, act as key audience members in community feedback sessions and supporters as well as advisors at home for caregivers.

The community can participate in monitoring PD Hearth implementation and results. The higher the visibility of Hearth in the community, the greater the nutritional impact will be. Hearth sessions provide "living proof " that good nutrition practices help malnourished children.

A **caregiver** refers to anyone who has significant responsibility for the care and feeding of a young child. This may be a parent, grandparent and/ or older sibling, depending on the cultural context and family situation. In some cases, two caregivers, such as a mother, grandmother pair, may attend the Hearth sessions.

A **grandmother** refers to a senior woman (related or unrelated to the child) who lives in close proximity to the child and who has influence on childcare.

This raises the consciousness of community members and empowers them to prevent mal- nutrition within their community.

Essential Elements of PD Hearth

2. **Use community members and health staff in each and every community to conduct a Positive Deviance Inquiry.** The PDI is not simply a fact-finding exercise for the health workers. It is an opportunity for community members (e.g., community health CHPs, health staff, community leaders, grandmothers) to ‘discover’ that poor families have certain good practices which enable them to prevent malnutrition and that these practices can be used by any family with similar scarce resources.

In order for a community to take ownership, the discovery process must take place in that community. Each community or communities within 5km radius with similar cultural practices, belief, and food availability need its own PDI to discover its Positive Deviance (PD) practices. Many programmes have tried to save time by using the PDI results from one community in another; doing so means that the second community loses the process of discovery that results from the PDI. If there are no poor families with well-nourished children in a particular community, the PDI may need to look at families with only at-risk underweight children. Alternatively, if the community can identify a nearby community with the same culture, socio-economic conditions and, perhaps, blood relationships, the CHPs can be taken there to identify PD families with whom to conduct the PDI. Since family coping may change with the seasons, it may be necessary to repeat the PDI during different seasons of the year.

The PDI consists both of questioning family members, including caregivers and grandmothers, and making careful observations of the situation. The list of questions that has been developed is best used as a discussion guide rather than as interview questions. With sufficient practice, the PDI team should be able to visit the families without relying on the list of questions. A second or third person from the PDI team can concentrate on observing practices related to childcare, hygiene, sanitation and food preparation, noting the roles of influential family members as well as what foods and materials are available in the home. Projects need to allow sufficient time to prepare for and conduct PDI visits to obtain the most useful information.

3. **Utilize CHPs to conduct the Hearth sessions and the follow-up home visits.** Caregivers will learn best from those who normally provide child care advice and support within their culture and community, and who understand local customs and conditions. The CHPs can be any community members, including grandmothers, with a good reputation, credibility, healthy children and a willingness to take on the necessary responsibilities.

Note: PD caregivers are not necessarily Hearth CHPs. The PDI results in a collection of PD practices from multiple PD families; it is extremely rare that one family models all the PD practices. We are not looking for PD persons but PD practices. In many cultures identifying individuals or families as models (or somehow ‘better’) results in social rejection by their peers.

4. **Use growth monitoring to identify malnourished children and monitor the nutritional status of participants who have graduated from PD Hearth.** Growth monitoring should be started in time to monitor the children who complete the Hearth session. The growth-monitoring programme must include weighing, good nutrition counselling and explanations of the child’s growth to the caregivers. It is also an important tool for monitoring the progress of all the children in the target group over time, and it allows the integration of newly malnourished children into the second or third Hearth session.

5. **Prior to the Hearth sessions, deworm all children, update immunizations and provide needed micronutrients.**

Children are more likely to show quick recuperation when these important health interventions are taken care of before the Hearth session. Families should be referred for these services to the local health facility. These activities are kept separate from the Hearth session so that families do not attribute the child's improvement in nutritional status to these activities rather than to the food and feeding practices. During the Hearth session and follow-up, home visits families will be encouraged to continue to access these and other preventive health services including growth monitoring and the use of insecticide-treated bed nets (LLITNs), where needed. In areas of high malaria prevalence, children will need diagnosis and treatment before attending the Hearth sessions. All children to be checked for underlying illness and/or anaemia before entering Hearth to screen for treatable conditions.

6. **Design optimal Hearth menus based on locally available and affordable foods.**

Participating families must be able to replicate meals in their own homes with limited resources. This is the only way they will be able to sustain the improved nutritional status of their children and prevent future cases of malnutrition in the family. The affordability of foods is verified through the PDI, which discovers the foods used by poor families with well-nourished children, and the market survey, which explores the costs and nutritional content of foods available for purchase.

7. **Provide a special, nutrient-dense meal capable of ensuring the rapid recuperation of the child.** The daily Hearth menu includes an extra meal and snack, an addition to what the child normally eats at home in one day. This menu must contain the following nutrient levels for each child:

Calories: 600–800 kcal

Protein: 25–27 g

Vitamin A: 400–500 µg RE (retinol equivalent) or 300 µg RAE (retinol activity equivalent) Iron: 8–10 mg (may need iron supplementation or a fortified product to meet this requirement)

Zinc: 3–5 mg

Vitamin C: 15–25 mg

These figures show the range of supplementary nutrient levels necessary to rehabilitate malnourished children. Specific levels for children of different ages are listed in the CORE PD Hearth Guide. Consider the Hearth meal as 'medicine'; this is the dosage prescribed. If the Hearth supplemental meal does not meet this minimum standard, then weight gains are compromised. The meal is a supplement, not a meal substitute. The additional calories and protein are needed for the 'catch-up' growth of the child. When the child is no longer underweight, this 'extra' energy and the protein-rich meal is no longer necessary. However, to sustain the rehabilitation gains, regular family meals need to be more balanced and nutritious. Caregivers learn how to do this during the Hearth sessions.

Essential Elements of PD Hearth

8. **Ensure that caregivers bring a daily contribution of food and/or materials to the Hearth sessions.** One of the fundamental actions of PD Hearth is that families learn that they really can afford to feed their children with nutritious food. The PDI revealed that poor families can provide food and raise well-nourished children. Obtaining and bringing the foods reinforces the use of these affordable foods. The community also realizes it is able to rehabilitate its malnourished children without outside material support.
9. **Have caregivers present and actively involved every day of the Hearth sessions.** Involvement promotes ownership and active learning and builds self-confidence. Repetition of new skills and practices enables caregivers to learn and adopt new behaviours. Attendance and active involvement of caregivers each day of the Hearth sessions is necessary for children to achieve adequate weight gain.
10. **Conduct the Hearth session for 12 days within a two-week period.** Within 8–12 days of starting the Hearth sessions caregivers should see notable improvement in their children's health. They may need some guidance to recognize the changes in their child, such as improved appetite, increased activity, less irritability and higher level of alertness. Recognizing these changes motivates the caregivers to adopt new feeding, caring and health practices. If a child is not fed the special extra meal over sequential days, recovery will be so slow that the caregiver will not have the satisfaction and motivation to continue the programme. There may be breaks of one or two days during the Hearth sessions to allow for weekends, holidays, or market days (e.g., 6 days 1 day rest + 6 days). The family must be encouraged to prepare the special meal at home on the rest days. This Hearth session may be repeated the next month as some children may not experience 'catch-up' growth within the first month.
11. **Include follow-up visits at home every 2–3 days for two weeks after the Hearth session.** It takes an average of 21 days of practice for a new behaviour to become a habit. The caregivers will need continued support to implement the new practices in their own homes. During home visits the CHPs or health care workers can help caregivers think of solutions to any difficulties they are encountering or respond to concerns about the child's progress, and can support grandmothers in their role as household advisors to facilitate positive changes in child care and feeding. By continuing to practice these new behaviours, the improved nutritional status of the participating child will be sustained at home and malnutrition will be prevented among children in the future.
12. **Refer a child who does not gain weight after two 12-day sessions to a health facility to check for any underlying causes of illness such as tuberculosis, HIV/AIDS, or other infections.** If the child does not have an illness, direct families to other social services or to income-generation projects. The average number of sessions it takes to graduate a child varies, but the number of sessions a caregiver can attend is normally limited to two; otherwise, caregivers may become dependent on Hearth and not internalize new behaviours. A sense of urgency to rehabilitate a malnourished child should be instilled and encouraged in the caregiver and the family. However, some children may need more time to gain weight. (All children should be checked for underlying illness before entering Hearth to screen for treatable diseases.)

13. **Limit the number of participants in each Hearth session.** Having a limited number of participants provides a 'safe' environment in which rapport can be built, and it gives all caregivers an equal opportunity to participate in all activities. Experience has shown that Hearth sessions are most successful when limited to no more than ten caregivers or five caregiver-grandmother pairs.
14. **Monitor and evaluate progress.** At a minimum, projects should monitor Hearth attendance, admission and one-month weights, and the percentage of children who graduate after one session or after two sessions. Graduation shall be determined after 90 days based on weight for age z-score. Projects monitor the longer-term impact by measuring the weight gains of participants two months, six months and one year after graduation, and by tracking growth of younger siblings and the target age group over time. Projects may develop other indicators to monitor the quality of implementation, community support, and so forth.

Essential Elements of PD Hearth

Handout 25.2: Essential Elements of PD Hearth

Detailed Observations and Key Questions

Summary components and sample questions to guide discussion on essential elements

Essential PD Hearth project elements	Key questions to consider
<p>1. Actively involve the community throughout the process.</p> <p>Leaders and/or the community health committee (CHC) provide support in organizing weighing, finding volunteers, conducting PDIs, contributing supplies and participate in monitoring implementation/results. Individuals with influence on child care and feeding, particularly grandmothers, are engaged as advisors, mobilisers, volunteers, Hearth participants etc.</p> <p>The higher the exposure and involvement, the greater the impact on community overall nutrition status.</p> <p>Raising the consciousness of the community is empowering.</p>	<ul style="list-style-type: none"> • How was the community mobilized? • What did the community contribute to the project? • How were grandmother and other influential figures engaged? • What information was given back to the community? When? • Have structures/policies that support child nutrition changed? • Was PD Hearth integrated with other programmes/ sectors? How was this achieved? What were the results?
<p>2. Conduct a PDI in every community.</p> <p>A PDI is an opportunity for the community to make discoveries, not just to provide information to the program</p> <p>To ensure community ownership, integrate the PDI into the Hearth sessions.</p> <p>A PDI may need to be done at different seasons. The goal is to identify PD practices, not only PD person.</p>	<ul style="list-style-type: none"> • How were the families to visit identified? • How was the PDI conducted? By whom? • How was information analyzed? • Were PD foods/practices identified? • How were grandmothers involved? • How was the information utilized? Menus /messages? • Was there sufficient technical skill to complete the PDI well?
<p>3. Use community health promoters to conduct sessions and follow-up home visits.</p>	<ul style="list-style-type: none"> • How were Hearth volunteers trained?
<p>4. Use growth monitoring to identify malnourished children and to monitor participants who have graduated.</p> <p>If growth monitoring is not already in place, begin monitoring those who complete Hearth sessions and all children in target group over time.</p> <p>Growth monitoring must include counselling and explanations of a child's growth.</p>	<ul style="list-style-type: none"> • Is routine growth monitoring present in the link health facility? • Is counselling concluded? • How are children monitored after graduation?

Essential PD Hearth project elements	Key questions to consider
<p>5. Prior to sessions, deworm all children and provide immunizations and micronutrients.</p> <p>The purpose is to support rapid recuperation. Refer families to the local health centre before Hearth sessions so recuperation is not attributed to these activities.</p> <p>In endemic areas malaria treatment before hearth sessions may be necessary.</p>	<ul style="list-style-type: none"> • Was a situation analysis completed (nutrition assessment, feeding practices, expanded programme of immunization coverage, vitamin A supplements, Micronutrient powder supplements)? • Were all children under three years of age weighed? • Were Children dewormed, immunized, supplemented with vitamin A, and dewormed or received MNPs? • Were pre-existing underlying illnesses treated?
<p>6. Design Hearth session menus based on locally available and affordable foods.</p> <p>This is necessary to promote replication in home with limited resources in order to sustain improved nutritional status.</p> <p>Use foods confirmed through the PDI and verify the cost/nutritional content through a market survey.</p>	<ul style="list-style-type: none"> • Was a market survey completed? • Were PD foods identified? • Were the foods local, available and affordable? • Were there any food taboos or associated?
<p>7. Hearth session menus are nutrient dense to ensure rapid recuperation need to be balanced and nutritious.</p> <p>Menu plus snack must contain require protein, calories and micronutrients to provide 'catch-up' growth.</p> <p>The Hearth meal is 'medicine'.</p> <p>The extra meal is a supplement, not a meal substitute.</p> <p>To sustain the rehabilitation families, learn that meals need to be balanced and nutritious.</p>	<ul style="list-style-type: none"> • Who decided on the menus? When? • Were menus nutrient dense (by programme standards)? • Who analyzed the menus? • Were the menus followed in sessions? • Were the menu followed at home?
<p>8. Ensure that caregivers bring a daily contribution of food or materials to Hearth.</p> <p>This reinforces the fact that families can afford to feed nutritious food.</p> <p>The contributions make implementation possible without outside material support.</p> <p>Families providing resources ensures that the programme is non-paternalistic</p>	<ul style="list-style-type: none"> • Were PD foods identified? • Did caregivers contribute PD foods? Other foods?

Essential Elements of PD Hearth

Essential PD Hearth project elements	Key questions to consider
<p>9. Have caregivers present and actively involved every day of the Hearth session. This promotes ownership, active learning and confidence. Repetition of practices builds habits that sustain rehabilitation and prevent malnutrition. Daily attendance is necessary to achieve weight gain.</p>	<ul style="list-style-type: none"> • Was a caregiver involved with each child? Did caregiver-grandmother pairs work together where appropriate? • Did all caregivers participate in all the activities every day of the programme?
<p>10. Conduct the Hearth session for 12 days within a two-week period. Eight to twelve days are needed to see changes in the child. Caregivers may need help to identify improvement in appetite, energy, alertness, less irritability, and so forth. Changes in the child motivate caregivers to adopt and continue the new practices. If the child is not fed an extra meal over sequential days, changes are too slow for the caregiver to notice.</p>	<ul style="list-style-type: none"> • Were PD Hearth sessions conducted for 10-12 days? • What were attendance rates? • Was time spent reflecting with caregivers about changes in child?
<p>11. Include follow-up home visits (every 2–3 days) for two weeks after the session. Caregivers need continued support. It takes 21 days to change a behaviour into a habit. Home visits help find solutions to obstacles to adopting new practices that are being faced at home. Home visits provide opportunities to address questions families may have about the child's growth.</p>	<ul style="list-style-type: none"> • What did follow-up visits include? How often did they occur? By whom? • Did volunteers have the information and skills to support families in overcoming obstacles to child feeding/growth?
<p>12. If a child doesn't gain after two sessions, refer the child to the health centre. A child with no underlying health issues who is not gaining weight may need referral to other social-services or income- generation projects. A sense of urgency to rehabilitate the child is needed by caregivers, families and volunteers.</p>	<ul style="list-style-type: none"> • What happened if a child became sick during the session(s)? • Under what circumstances was a child referred to the health centre?
<p>13. Limit the number of participants in each Hearth session to ten or fewer. A limited number of participants provides a 'safe' environment where rapport can be built. Caregivers have an equal opportunity to participate in all activities.</p>	<ul style="list-style-type: none"> • How many children attended the sessions? • How many caregivers or caregiver-grandmother pairs attended the sessions? • Did caregivers participate in all aspects of the sessions?
<p>14. Monitor and evaluate progress. Record attendance, entering and one-month weight, and the percent of children who graduate. Check the long-term impact by measuring weight gain at two or six months, one year, and monitor the weight of younger children.</p>	<ul style="list-style-type: none"> • Were graduation criteria established? • Was monitoring information used to improve implementation? When? How? • Was there adequate technical support for county and sub county managers and for volunteers? • Was supervision frequenting enough? Was it adequate?

Session Objectives:

By the end of the session, participants will be able to:

1. Identify key factors that have contributed to the success of Hearth sessions.
2. Discuss adaptations to meet contextual needs in successful Hearth programs.
3. Review the steps in conducting hearth sessions.

For further reference, refer to CORE PD Hearth Guide: pg. 135–39 and 143–45

Preparations

- Have the flip chart with the PD Hearth objectives at the front of the room.

Materials

- Flip Chart and Felt Pens

STEPS

10 Min

1. Meet Caregivers before Hearth session

- Review together what takes place in a typical Hearth session.
- Ask participants to list the activities that take place in a hearth session. Mention that there are several days when other activities happen.

The day before the Hearth sessions begins, the CHP must gather the caregivers in his or her session together. They will discuss what PD Hearth is about, how many have agreed to join the program, duration of hearth sessions and subsequent follow ups. The discussion should also incorporate the menu, what each caregiver or caregiver-grandmother pair needs to bring, (utensils, food ingredients for the menu), name of the hearth, time and meeting venue, allocation of roles, children supplemented with vitamin A, dewormed, sharing of key messages and so on. Sometimes caregivers are invited to come in after the volunteers have practiced making the menu. The caregivers taste the food and discuss how they will learn to make these foods to help their children grow well.

- On Day 1 and Day 12 all the children in the session will be weighed before they eat the food. The weights are recorded on the monitoring sheets. This will enable community health promoters, health care workers, supervisors, and caregivers to see whether each child is gaining sufficient weight.

Conducting the Hearth Session (STEP 6)

NOTE: NAMING A HEARTH

- The village name is used as the smallest administrative unit.
- Add a well-known name for the area
- Use alphabetical order to number the hearths.
- For example; Eshimukoko Village, Duka Moja (well known), A (first hearth) the hearth shall be known as Eshimukoko Duka Moja, A

10 Min

2. Introduce the session, explaining the need to adapt the program and to remain flexible while still focusing on the purpose of Hearth. Refer to the flip chart with the PD Hearth objectives, and briefly go over the importance of adequate food intake, of local feasible interventions, and of the caregivers' participation.

10 Min

3. Ask participants to do a role play of the first day of Hearth. Make sure the roleplay includes the following:

- 1-2 CHPs to meet with participant caregivers to decide on a time and place to meet for Hearth (ensure Hearth site has a latrine)
- Assign roles to participant caregivers and ask caregivers to bring a bowl and spoon for the children to eat from
- Ask primary caregivers which of the ingredients from Menu A they could possibly bring and assign caregivers to bring various ingredients.

Role Play; PD Hearth activities

Act out the Day 1 of a Hearth session. Make sure the role play includes the following:

- Registering of the children (refer children to a health facility or hospital when MUAC is 'red' or child has a disability and has difficulty feeding due to the disability)
- Correct weighing and reading of MUAC of children.
- Collection of ingredients
- CHP sharing the key Hearth message.
- Defining the caring station, handwashing station, play area and cooking station.
- Caregivers taking on various roles that were assigned to them previously.
- Handwashing of children before giving them snacks
- Children taking snacks while waiting for caregivers to cook Hearth meal.
- Children singing a song about handwashing.
- CHP providing various messages at the 3 different stations.
- CHP sharing menu for cooking caregivers (prepare giant menu chart)
- After cooking, caregivers feeding the children.
- CHP sharing the key Hearth message while caregivers are feeding children the Hearth meal.
- Assigning roles for day two and identifying who brings the food ingredients.
- End with caregivers standing up to clean up the dishes, cooking utensils and the working area.

10 Min

4. PD Hearth is implemented differently in various set ups depending on various factors.

Which elements of the program might need to be tailored? What considerations might prompt adaptations? Ideas? (See the situations detailed in the **CORE PD Hearth Guide, pg. 143–145**. The discussion should include examples of ways to follow up defaulters; how to avoid the stigma of participation; and methods to incorporate working mothers, grandmothers and/or multiple caregivers.) Discuss the following adaptations, as well as any mentioned in earlier sessions that merit further discussion:

- The Wajir PD Hearth programme placed a volunteer in a local hospital to create a better link between the community and the hospital (for referrals and for other health services).
- In many urban settings, the homes do not have sufficient space to hold a Hearth session. In Embakasi, some sessions were held in unoccupied houses for rent, at the corridor among the houses or houses' roof- tops.
- Some NGOs are experimenting with ways to use Hearth along with food distribution programs. In Indonesia, volunteers were paid 'food for work' and the rice and oil are used in the sessions. These are staples all families have, so the emphasis is still on the caregivers contributing the PD foods. The sessions show families how they can feed their children well without donated rations.
- In Cambodia, World Vision integrated phone-based IYCF counseling is a potentially promising solution to reduce the burden of in-person visits after completion of the first week of PD Hearth sessions³ to reduce the burden of visiting caregivers.
- In Kakamega, one program has each participating caregiver lead the Hearth session one day. On the previous afternoon, one staff visits the home to help the caregiver prepare the session. There is no volunteer.

3

https://www.researchgate.net/publication/354025627_Evaluation_of_mobile_phone-based_Positive_DevianceHearth_child_undernutrition_program_in_Cambodia

Conducting the Hearth Session (STEP 6)

Summarize the session:

Steps followed in each daily Hearth Sessions

General Steps followed in each Daily Hearth Sessions

1. Welcome all of the participants. Review the goals of the Hearth, the agenda for the day, and respond to any participant concerns or questions.
2. Show the participants where they can wash their hands and the hands of their child: demonstrate proper handwashing techniques using soap.
3. Distribute a snack to the children (discuss how snack time boosts calorie intake, stimulates appetite and provides the caregivers with time to cook the main meal)
4. Conduct a health education discussion on the health topic for the day.
5. Divide the participants into teams for different aspects of food.
6. Preparation, child care and stimulation, and clean-up.
7. Prepare and cook the meal while other participants play with the children singing and playing games.
8. Repeat handwashing of the caregiver and child
9. Distribute the meal and supervise caregivers as they feed their children (use opportunities to demonstrate active feeding techniques) Clean up.
10. Review the day's lessons.
11. Plan for the next day's menu and food contributions with the mothers or other caregivers.

Session Objectives

By the end of the session, participants will be able to:

1. Help caregivers reflect on changes in their child to motivate ongoing practice
2. Describe the objectives, activities and frequency of home visits
3. Explain the objective and activities for providing community feedback.

Preparation

Ask six participants to act as 'caregivers' in the reflection skit.

STEPS

5 Min

1. Learning new habits takes time

Caregivers get a good start during the Hearth sessions, but need help to recognize the changes they see in their children and relate those changes to the extra food and care they are giving them. This can be done by having a reflection time together on the last day of Hearth. They also need to be encouraged to continue the new practices, so CHPs will visit caregivers in their homes during the two weeks after the Hearth sessions. These visits are intended to help caregivers overcome any problems they might be having in following the new practices.

10 Min

2. Role play a reflection time

Gather all the 'caregivers' in a circle. Point out that this is the last day of Hearth. Ask the 'caregivers' what they think, allowing time for them to answer.

- What did you like about Hearth?
- What was your child like before the Hearth sessions started?
- How is your child now?
- What do you think has made the difference?
- Do you think you will be able to continue these same practices at home?
- What obstacles do you think you might have?
- Congratulate them on their great work.

5 Min

3. Discuss the role play together

Brainstorm for ways to solve the problems that caregivers might have. What do we want caregivers to learn from the reflection time? Why?

5 Min

4. Reinforcing the new positive behaviours learned

Explain the importance of practicing a new behaviour over a sufficient length of time for the behaviour to become a habit. The Hearth approach includes two weeks of Hearth followed by home visits during the two weeks after the Hearth session to reinforce the behaviours learned during the sessions. Each caregiver and child is briefly visited every two or three days by the CHP to be sure the child continues to receive the 'extra' food and that the other PD behaviours are being practiced. Reiterate the importance of the follow-up home visits.

5 Min

5. Present the following scenario to demonstrate a home visit: (Role play)

The CHP 'drops in', chats with the mother and grandmother about neighborhood news, and inquiries about the child. (The child is playing at a neighbour's house.) The CHP points out to the mother and grandmother that the child's newfound energy and interest in playing are signs of recovery. The mother mentions that the child had about of diarrhoea. When the CHP asks how she treated it, she says she had oral rehydration solution but gave tea instead because she couldn't remember how to prepare the solution and the grandmother couldn't remember either and so suggested tea. The CHP explains how to prepare ORS both to the mother and grandmother and asks them to repeat the directions. The CHP asks whether the child's appetite is good, and the mother says yes and that she is giving the child extra food. The CHP says she will check in after two days, reminds the mother and grandmother of the final weighing-in on the next day, and congratulates them for their efforts to make their child healthy.

5 Min

6. After the role play, ask participants:

- What was the purpose of the home visit? (Encourage caregivers to continue feeding and caring practices; encourage grandmother to support and advise caregivers about the practices; see that the child is continuing well; help caregiver and grandmother think of solutions to challenges)
- What examples of positive reinforcement did you see?
- How did the CHP help the mother and grandmother see the change in their child?
- How long was this home visit? (Brief, 10–15 minutes) How often are care givers visited by the CHP? (Every two or three days in a week)
- How many household visits can a CHP do in one day? (Two or three)
- Emphasize the importance of the follow-up visits in behaviour change and helping families to find solutions.

5 Min

7. Ask participants what challenges caregivers might face in practicing Health behaviours at home. Brainstorm possible solutions to each situation. Possible problems include:

- Forgetting what was taught.
- Not having the ingredients for the menu
- Not able to get affordable foods from different food groups [PD foods]
- A husband or mother-in-law who is resistant.
- A child who is sick
- A child who refuses to eat

Session Objective:**By the end of the session, participants will be able to:**

1. Describe the PD Hearth admission criteria.
2. Discuss considerations for children graduating from or repeating the Hearth sessions (Hearth protocols)
3. Discuss ways to work with the community to design an exit strategy and/or to link Hearth with other programmes.

For further Reference: CORE PD Hearth Guide: pg. 124–28, 142**Preparation**

- Print Handout 28.1
- Refer to Handout 10.2 and 10.3

Materials

- Handout 10.2: WHO Weight-for-Age Reference Table
- Handout 28.1: Follow-up Cases
- Hand out 10.3
- Blank flip chart

STEPS

50 Min

1. Admission Criteria**Please explain PD Hearth Admission Criteria to the participants.**

The admission criteria is based **on Age, Severity of MUAC, the severity of underweight and/or disability**. Admit all malnourished children 6-59 months of age, but prioritize children based on age since younger children (6-35months) are more vulnerable compared to children 36-59 months. Children with disability are prioritized because they may have reduced food intake hence likely to become malnourished.

Note:

- If a child's MUAC is red, refer him/her to a health facility for Integrated Management of Acute Malnutrition (IMAM) services immediately where they will get routine services
- If IMAM services are not available in the area and a child with red MUAC has no complications* or complications have been resolved, admit to PD Hearth. If the child does not have a good appetite, refer the child to the health facility for medical treatment. The child can be admitted into PD Hearth once the child's appetite returns.

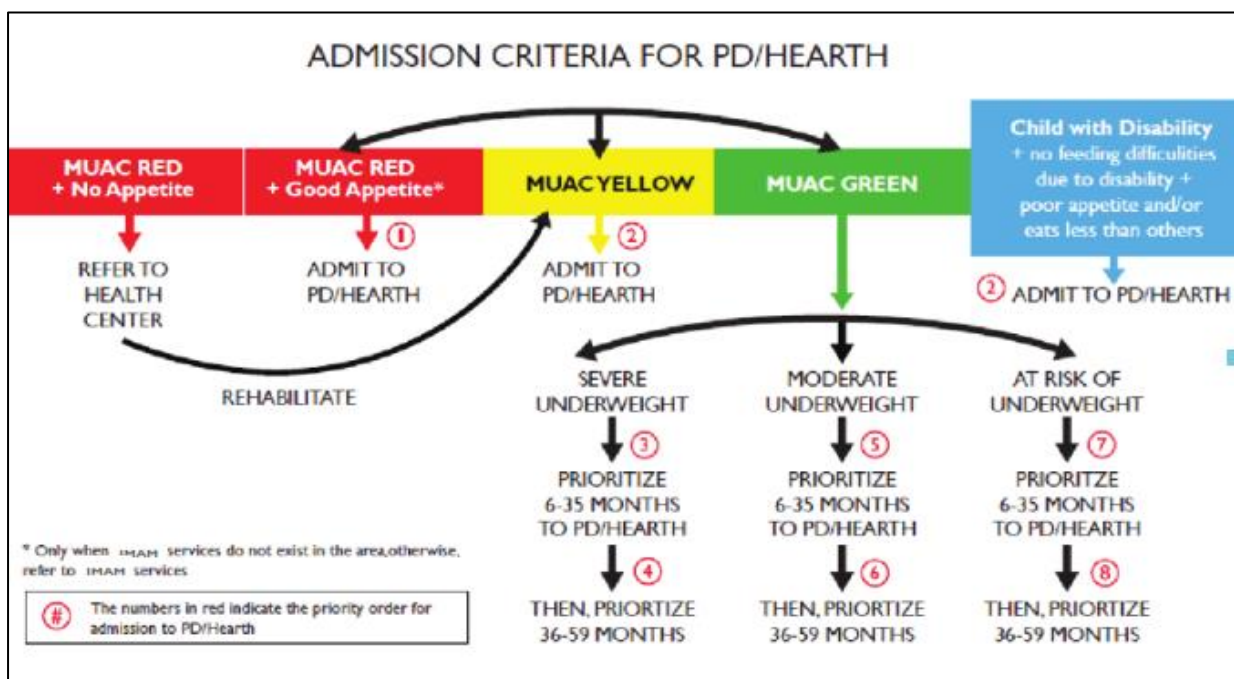
Medical Complications related to Malnutrition

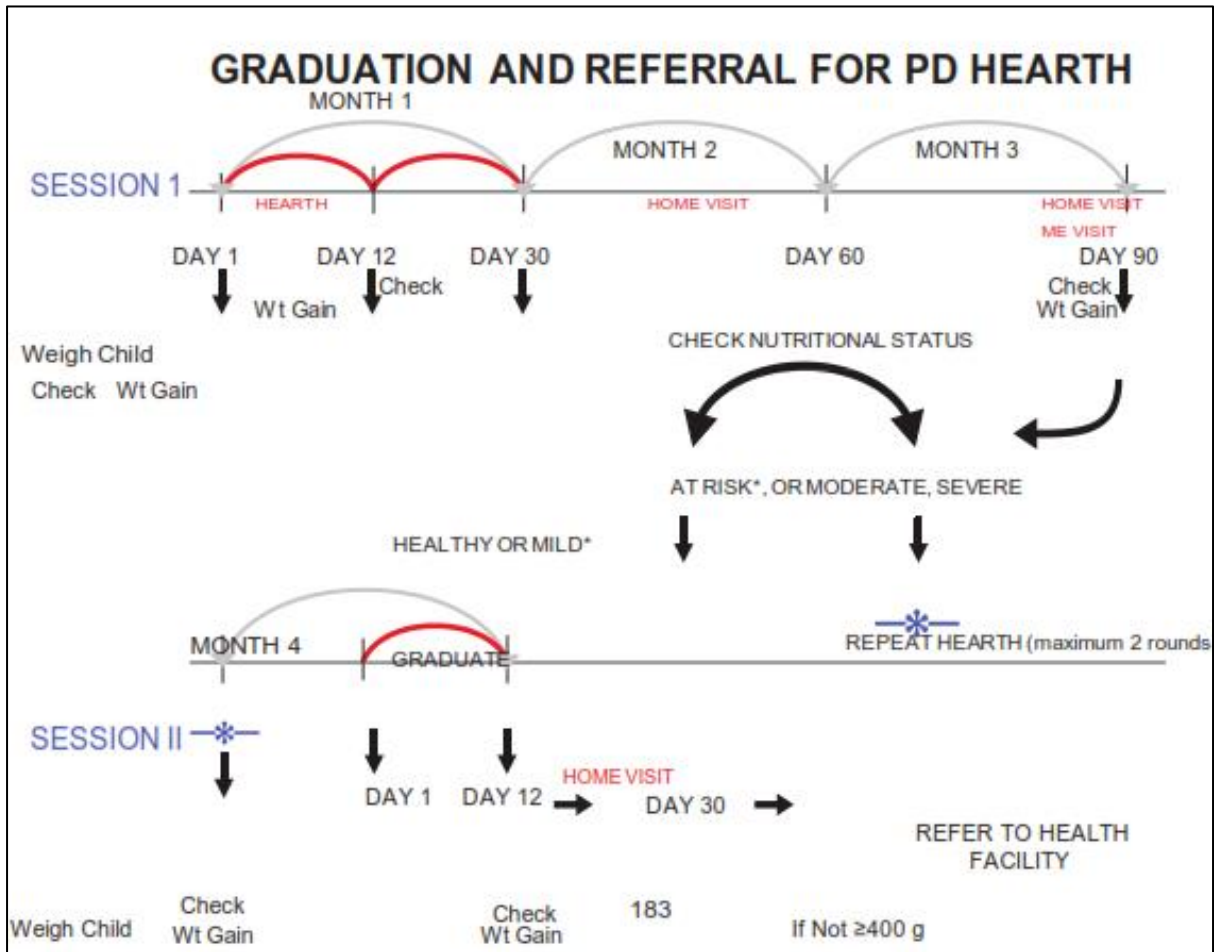
- Cough of over 14 days or history of TB in the household or contact to a TB client.
- Diarrhoea for over 14 days or blood in stool
- Fever above 38 degrees C for the last 7 days
- Convulsions - not able to drink or eat anything.
- Vomits everything.
- Chest in-drawing
- Swelling on both feet (Bilateral oedema)

Please follow the table on the order of admission.

PD Hearth Admission Criteria

Priority Age	MUAC	Underweight	
1	No IMAM Services Red (Severe) with good appetite	Severe	6-59 months
2	Children with Disability, and no difficulty with eating and/or drinking due to disability, but has a poor appetite or eats less than other children his/her age (MUAC and underweight status is irrelevant for admission as long as criteria above is met)		6-59 months
	Yellow (Moderate)	Severe	6-59 months
3	Green (Healthy)	Severe	6-35 months
4	Green (Healthy)	Severe	36-59 months
5	Green (Healthy)	Moderate	6-35 months
6	Green (Healthy)	Moderate	36-59 months
7	Green (Healthy)	At Risk	6-35 months
8	Green (Healthy)	At Risk	36-59 months





PDH Graduation Criteria

1. Graduation Criteria (Graduation declared at 3 months follow-up) Nutritional Status Graduation Criteria at 3 Months (see table below):

1. Admission (Day 1): Underweight Status	2. Disability Status	3. At 3 Months: Underweight Status	4. Next Step
Moderate or Severe	Yes or No	Healthy or At Risk	Graduate
At Risk, Moderate or Severe	Yes or No	Moderate or Severe	Repeat Hearth
At Risk	Yes or No	Healthy	Graduate
At Risk	Yes or No	At Risk, but gained $\geq 900g$	Graduate
At Risk	Yes or No	At Risk, and gained $< 900g$	Repeat Hearth
Healthy, At Risk, Moderate or Severe	Yes and child has a disability that makes assessing weight difficult (e.g. missing an arm, little person, etc.)	WAZ remain same or improved in 3 months (For example, Day 1 WAZ=-2.2 vs. 3 Months WAZ=-2.1)*	Graduate
Healthy, At Risk, Moderate or Severe	Yes and child has a disability that makes assessing weight difficult (e.g. missing an arm, little person, etc.)	WAZ decreased in 3 months (For example, Day 1 WAZ=-2.2 vs. 3 Months WAZ=-2.5)*	Repeat Hearth

***Note:** If child has a disability that makes it difficult to measure or assess weight, look at growth trend and not underweight status when graduating the child

- If child was admitted as “**Moderate or Severe**” underweight, child must be “Healthy or At Risk” underweight status at 3 months for child to graduate, regardless of weight gain and regardless if child has a disability. If child is still “Moderate or Severe” underweight, repeat Hearth (repeat max. 3 times – depends on the country, but we recommend 2 times)
- If child was admitted as “**At Risk**” underweight, and child is “Healthy” underweight status at 3 months, graduate the child, regardless if child has a disability or not. If child was admitted as “**At Risk**” underweight, and the child is still “At Risk” underweight status at 3 months, graduate the child if child gains $\geq 900g$, regardless if child has a disability or not. Otherwise, child must repeat Hearth.

Special Exception to above is when child has a disability that makes it difficult for measuring/assessing weight-for-age status:

If child was admitted due to a disability that makes it difficult to accurately weigh or assess a child (e.g., child without an arm

Admission, Graduation, Repeating Hearth Sessions as Needed (STEP 8) and Expanding PD Hearth (STEP 9)

or a little person), regardless of the underweight status of the child on admission or Day 1, refer to the child's Day 1 Weight-for-

Age Z-score (WAZ) and compare it to the 3 Month WAZ. If the WAZ has stayed the same or improved, graduate the child (look at the growth trend). If the WAZ decreased within the 3 months, the child must repeat Hearth.

- **Weight gain requirements** (encourage caregivers whose children have gained weight for doing a good job if they meet these requirements, but this should not be used as graduation criteria):

12 Days: \geq 200g

30 Days: \geq 400g (If a child did not gain close to 400g at 30 days, ensure the mother is practicing the positive practices encouraged during Hearth session. If the child seems to be sick, refer the child to a health facility).

3 months: \geq 900g

2. Home Follow-up Visits

- Conduct home visits for 2 weeks after 12-days of Hearth sessions (2-3 times a week)
- Visit HH of PD Hearth participants every month after 30 days for up to 1 year (if possible)
- Conduct "Health meeting" led by the community health volunteer every 1-3 months for community monitoring of PD Children's growth, share Health/Nutrition messages and meet with PD Hearth participant caregivers after meeting
- Pay a special visit to HHs to check the weight of the child and provide counseling as needed for children who have MUAC 'yellow' or 'red', for children severely underweight, and/or children who have a disability (visit monthly or more frequently between 1-3 months after Hearth session)

3. When to refer a child for medical attention or therapy

- During Initial Assessment or 1st Day of Hearth, if a child is found to be “RED” for MUAC, refer them to a health facility and do not admit into PD Hearth (follow-up with child and admit into PD Hearth after child’s return from Health Facility is and “YELLOW” or “GREEN” for MUAC).
- If during the initial assessment or 1st Day of Hearth, the child is found to have a disability and has difficulty feeding because of the disability, refer the child to the health facility for therapy and admit into PD earth after child completes therapy or the health facility refers the child to PD Hearth
- If before Hearth, child has not received full immunization, Vitamin A supplementation and was not dewormed 6 months ago (need to make sure child is given all 3 before being admitted into Hearth)
- If during the Hearth session, a child becomes ill (if the child is referred to a health facility, once the child is back, reset the number of times the child was in Hearth session back to 0)
- If the child does not gain at least 400g of weight after 2 consecutive Hearth sessions in 30 days, refer the child to a Health Centre for medical check-up.

4. Age limits for Participation in Hearth (how to deal with siblings not identified for Hearth)

The age limit is 6-59 months (Prioritize children 6-35 months of age first, but if a child is severely wasted with a good appetite or has a disability, prioritize the child regardless of the age as long as the child is 6-59 months of age).

It is important to monitor not only the child’s weight gain but also to calculate the child’s nutritional status using either the ‘Growth’ charts or the WHO Weight-for-Age Reference Table (Handout 14.2). A malnourished child is expected to gain at least 400 grams in one month with one Hearth session. If a child’s nutritional status advances to green (normal) in one session, the child must continue to grow at the average expected rate (approximately 200–250 grams a month, depending on the child’s age). Thus after 3 months, the child should have gained at least 900 grams.

A 400-gram gain in Hearth will usually not move a child from one level of malnutrition to another, especially if the child is moderately or severely underweight. The average weight gain needed to change from moderately underweight to at risk of underweight is about 1.2 kilograms. This can be demonstrated with the WHO Weight-for-Age Reference (refer to Handout 14.2, 18 months for girls or boys). Look at the weight in the moderately underweight column and subtract the weight in the at risk of underweight column. This is the weight a child needs to gain to move from moderately underweight to at risk. Take note that as the child gets older, more weight is needed to ‘cross’ from one level of nutrition to another.

Admission, Graduation, Repeating Hearth Sessions as Needed (STEP 8) and Expanding PD Hearth (STEP 9)

A PD Hearth programme needs to ensure that children are not only gaining the initial 400 grams in one month but are continuing to gain weight in a pattern consistent with the growth charts. This means that the programme does not expect the nutritional status of the child to improve (e.g., continuous catch-up growth) at home, but only to maintain healthy growth after the initial catch-up growth with the Hearth session. However, if catch up growth is seen at home, that is a commendable achievement and the household's strategy could be shared with others in the community. In many programmes, children who gain 400 grams but are still malnourished enter another Hearth session in order to continue their catch-up growth.

When a child is not gaining adequate weight, this should be assessed together with the caregiver and family members. There may be understandable causes (for example, child may have had diarrhoea which prevented adequate weight gain of 400g in one month or 900g in three months). Continue to monitor the child at home.

In some cases, there may seem to be no clear reasons why the child has not gained adequate weight. In this situation, it may be decided together with the caregiver and family that it would be best to repeat the Hearth sessions in order to reinforce new skills and practices and allow the child to have another period of accelerated growth. If the child does not gain the graduation weight in the second round of Hearth (i.e., 400g or more by the end of the month), the child should be referred to the local health facility to assess for underlying diseases.

Each child's situation is unique and graduation should be assessed individually.

Be sure the following points are highlighted.

- A limit to the number of times a child may repeat Hearth
- When to refer the child for medical intervention
- What to do if attendance is poor
- Micronutrient and other supplemental activities
- Expectations for participation in Growth Monitoring Promotion (GMP)
- Strengthening growth monitoring programmes to the community level to increase
- GMP coverage and to ensure disabled children are included in the GMP sessions.
- Age limits.

15 Min

2. Break participants into small groups and assign each group one of the case studies (Handout 28.1). Participants should discuss the conditions for enrolling a child in Hearth and for graduating a child or having the child repeat Hearth.

What action is indicated in the case of a chronic underachiever? During the final five minutes, have each group briefly explain its case and recommendations.

Follow-up Cases

Handout 28.1: Follow-up Cases

The purpose of these follow-up cases is to assess the understanding of the admission and graduation criteria of PD Hearth. Ask the participants to read the cases and discuss the reflections questions below each case study

1st Case: Aisha is three years old, and an only child. After two Hearth sessions, she has gained 800 grams but is still moderately malnourished. Her mother, who is pregnant, appears to be following the new PD behaviors and working hard to rehabilitate Aisha, but she is becoming discouraged. The grandmother is taking care of Aisha during her pregnancy and advising her to continue feeding Aisha with what they learned at Hearth. The grandmother is confused that her daughter-in-law is discouraged and that the volunteers say that Aisha is still malnourished when she is looking very healthy, active and growing well.

Questions

What is Aisha's mother/grandmother doing well? Is Aisha supposed to be graduated?

If not, what actions are supposed to be taken?

2nd Case: Manyatta Village has many malnourished children, and Hearth sessions are proceeding well. However, some segments of the population are semi-nomadic, moving with the seasons to find work. Though these caregivers have been enthusiastic participants, it is difficult to follow their children during the dry season. Many returns during the rainy season having lost weight again.

Questions

Is this situation ideal for a hearth session?

If not, what would have been the ideal or most suitable intervention?

3rd Case: Daniel is 23 months old. He and his mother (who also has two older children) just completed one Hearth session. His weight has not improved. The supervisor suspects, from her home visits, that the mother is preparing some extra food but sharing it with the whole family. The grandmother may support sharing the extra food with the entire family too.

Questions

Explore why Daniel is not gaining weight

What actions would you undertake in such a scenario? What can be the role of the grandmother in this case?

4th Case: During the sessions, Bundi's gained 500 grams. By the end of the follow-up period, he had lost 500 grams

Questions

What could have contributed to Bundi's weight loss after the sessions? What would be your actions or advice in this case?

10 Min

1. When to scale up PD Hearth program

It is important that PD hearth implementers learn in a small pilot area before expanding on large scale. The pilot part becomes a learning center to train other communities and staff.

The piloting helps learn the challenges you are likely to face as you expand to other areas. Do not proceed too quickly or replicate weak or unsuccessful interventions. You need to take time to understand why the project is not successful.

For example, during the piloting of the PD Hearth program in Embakasi East and Ruaraka Nairobi County, even some CHPs were not sure the approach would work. Some were not sure households would contribute food for the hearth sessions. However, after the initial PD Hearth sessions they realized the model was working and the children were improving tremendously. This gave them the motivation to expand and cover more hearth sessions.

Session Objectives

By the end of this session, participants will be able to:

1. Define what is monitoring and evaluation in the PD Hearth Context Identify indicators for monitoring PD hearth activities
2. Describe supervision tools that are available to ensure the quality of PD Hearth activities.

For further reading: Reference CORE PD Hearth Guide: pg. 140, 146– 148, 157–184

Preparation

- Write each of the three Hearth goals on separate pieces of flip chart paper.
- Prepare a flip chart to show the Triple 'A' Cycle (Assessment Analysis & Action) – see page 168 of the CORE PD Hearth Guide.
- Print copies of 29.1, 29.2, 29.3, 29.4, 29.5, 29.6 and 29.7

Materials

- Handout 29.1: Checklist of Materials Needed for PD Hearth Sessions
- Handout 29.2: PD Hearth Menu and Cooking Materials Tracking Sheet
- Handout 29.3: Child Registration and Attendance Form
- Handout 29.4: PD Hearth Register and Monitoring Form
- Handout 29.5: Volunteer Home Visit Form
- Handout 29.6: Supervision of PD Hearth Session
- Handout 29.7: User Guide for the PD Hearth Excel Database
- Blank flip chart
- LCD Projector

Remind the participants of the three goals of PD Hearth and ask them to discuss together some indicators that can be used to monitor and evaluate progress toward each of the three goals. Write each suggested indicator on the flip chart for the goal to which it applies and indicate whether it is a qualitative or quantitative indicator.

Definition of monitoring and evaluation

Monitoring: Monitoring is the process of collecting data on an ongoing project/ activity analyzing, interpreting, and using it to adjust the PD Hearth so that it proceeds according to the plan.

Evaluation: It is the process of assessing the extent to which activities resulted in the achievement of program outcomes. It takes place at specific intervals of the project lifecycle, looks at the bigger picture and dwells on outcomes; impacts, and utilizes monitoring data, checking on the effectiveness, relevance, efficiency, quality, and scalability. The data collected during monitoring and evaluation can either be quantitative or qualitative.

Quantitative data is expressed as numbers and can be measured or counted while **qualitative** data is descriptive and usually represented by text, such as transcripts of audio or video recordings.

Goal One: Malnourished Children Are Rehabilitated

Observe during the Hearth session and household visit if the child is eating PD foods. Caregivers may report a change (qualitative); measure weight gain (quantitative).

Note: PD Hearth is a time-limited activity compared to other types of child survival programmes. Therefore, monitoring and evaluation can lead to direct, immediate and simple modifications to the programme. For example, in Ruaraka, the percentage of those attending was low. Therefore, after the first cycle, the staff interviewed both caregivers who did not attend and those who participated fully. The programme was modified for the second cycle to correct issues identified in the interviews.

Goal Two: Families Are Able to Sustain Rehabilitation at Home Are PD behaviors maintained after six months (for example, if five key behaviors were discovered in the PDI, are caregivers still practicing at least three of them) with the PD child and with other siblings? Measure for sustained weight gain at three months, six months, 12 months etc. (quantitative). Identify, the percentage of children who regularly attend the growth-monitoring programme and/ or immunization programs (quantitative).

Goal Three: Future Malnutrition Is Prevented (Community Level)

Gather information through informal interviews with neighbors and friends (qualitative); gather data through these community weights? or other nutritional assessments (quantitative). PD families that have graduated from the Hearth program may formally mentor incoming participants (this, too, can be monitored/measured).

What other External Factors Might to be monitored?

The quality of the existing healthcare system can be evaluated for the impact from the PD Hearth program: increased attendance by who exactly? under 5 OPD or increased immunization coverage; improved/more accurate weighing in the growth promotion programme to the IMAM programme and medical attention. Indicators of community mobilization and social change can be evaluated as well (what is this new leadership? turn over? how often are leaders elected and at what level? involvement of disadvantaged population including children with disabilities and their caregivers/households, conflict resolutions, impact beyond nutrition, etc.).

Note: The local health facility may need to budget for the recuperation of severely malnourished children, because they will be more readily detected and referred early in the program. Keep apprised of Ministry of Health policies for rehabilitation that may include Integrated Management Acute Malnutrition (IMAM) or rehabilitative therapy or services for children with disability, which might be coordinated with PD Hearth. After severely malnourished (wasted) children have completed the IMAM programme, they should participate in a PD Hearth session so that their caregivers will learn new positive behaviours necessary to sustain recuperation.

Who Monitors? Government officers at all levels (national; County and Sub-County), and NGO partners monitor PD Hearth activity; the community health assistants monitor the Community Health Volunteer; and the Community Health Volunteer monitors the caregivers and children.

Monitoring, Evaluation & PD Hearth Coordination

Why Monitor? Monitoring is essential to ensuring effective programs because it allows implementers to:

- Track activities and performance over time, such as what activities are being carried out, to whom, where, when, and how frequently
- Identify if activities are being implemented as planned and on time
- Make informed, timely decisions based on data, including improving programs by identifying which aspects are working well and which require adjustments

What to Monitor?

- Monitor Community Health Volunteer skills, communication skills, and adherence to Hearth protocols.
- Menus (taste, consistency, nutritionally adequate, affordable, use of PD foods)
- Food safety
- Caregivers' attendance for all 12 days
- Recording of weights and other appropriate activities.
- Monitoring is made through observation, conversations with volunteers, caregivers, and verification of records. The protocol for a supervisory visit includes:

Observation

- Sharing in conversation
- Applying information – providing feedback

Table 1: Monitoring matrix

What to monitor (population process)	Tools	Responsible person	Frequency
Materials Needed for PD Hearth Sessions	Handout 29.1: Checklist of Materials Needed for PD Hearth Sessions	PD Hearth/ CHP	Every PD Hearth session
PD Hearth Menu and Cooking Materials	Handout 29.2: PD Hearth Menu and Cooking Materials Tracking Sheet	CHPs	Every PD Hearth session
Child Registration and Attendance	Handout 29.3: Child Registration and Attendance Form	CHPs	Every PD Hearth session
Weight gain, MUAC and nutritional status	Handout 29.4: PD Hearth Register and Monitoring Form	CHPs	1 st , 12 th , 30 th , 60 th , 3 months, 6 months and 12 months of the hearth
Observation of hygiene and sanitation, feeding and care practices	Handout 29.5: Volunteer Home Visit Form	CHPs	2 weeks after hearth session (2-3times), once per month up to 1 year from first day of the hearth
Observation of hygiene and sanitation, food preparation, sharing of roles, meal service and key messages	Handout 29.6: Supervision of PD Hearth Session	PD Hearth	Every PD Hearth session
Nutritional status, wealth ranking	Handout 29.7: User Guide for the PD Hearth Excel Database	PD Hearth	Initial assessment 1st, 12th, 30th, 60th, 3 months, 6 months and 12 months of the hearth
Summary sheet of PD Hearth components	PD HEARTH supervision logbook	PD Hearth	Monthly

Monitoring, Evaluation & PD Hearth Coordination

10 Min

Ask participants to list potential indicators of behavioral change in Hearth Write these on a blank flip chart.

- Observe practices during the visit (see the PDI questions/checklist, Handout 17.4).
- Talk with the caregiver or grandmother/other household influencer for information on practices and if the child is receiving extra food.
- Check for better health-seeking behaviors (what does the caregiver advise when the child is sick: attendance at the health facility, extra feeding, etc.).
- Verify weight gain (at one month, three months, six months, and twelve months following the Hearth session).
- Observe the health status of any new siblings

Ask which of the indicators can be observed during home visits. Put an asterisk (*) next to these. Ask whether the supervisor or the volunteer would be more likely to observe and document these indicators.

Table 2: PD Hearth Log Frame

Results	Indicators	Responsible	Means of Verification	Frequency
Outcome Improved nutrition status	Prevalence of underweight in children 6-59 months	National, County, and Sub County Supervisors	Nutrition Survey	12 months
	Prevalence of wasting in children 6-59 m	National, County, and Sub County Supervisors	Nutrition Survey	12 months
Output 1. Malnourished children who participated in PD Hearth sessions show weight gain	Number/ proportion of children by sex 0-59 months screened for malnutrition. (Disaggregated by at risk, moderate & severe	National, county, sub county and ward supervisors	GMP and screening reports	Monthly
	Number/ proportion of children 6-59 months enrolled in PD Hearth (disaggregated by sex and disability	National, county, sub county and ward supervisors	PD Hearth admission report	Monthly
	Number/ proportion of children who defaulted	National, county, sub county and ward supervisors	PD Hearth reports	3 months
	Number/ proportion of children enrolled on PD Hearth with adequate	National, county, sub county and ward supervisors	PD Hearth reports	Day 12

Results	Indicators	Responsible	Means of Verification	Frequency
	weight gain (≥ 200 g) on day 12			
	Number/Proportion of children improved on the nutrition status on Day 12	National, county, sub county and ward supervisors	PD Hearh reports	Day 12
	Number/ proportion of children with adequate weight gain (≥ 400 g) at Day 30	National, county, sub county and ward supervisors	PD Hearh reports	Day 30
	Number/ proportion of children who improved in their nutritional status on Day 30	National, county, sub county and ward supervisors	PD Hearh reports	Day 30
	Number/ proportion of children with adequate weight gain (≥ 900 g) at 90 days	National, county, sub county and ward supervisors	PD Hearh reports	90 days
	Number/ proportion of children who improved in their nutritional status at 90 days	National, county, sub county and ward supervisors	PD Hearh reports	90 days
	Number/ proportion of children who have graduated/ recovered after 90 days. (SPHERE standards->75%	National, county, sub county and ward supervisors	PD Hearh reports	90 days
Output 2: Improved capacity of healthcare workers to rehabilitate children using PD Hearh	Number of health workers and healthcare workers who received PD Hearh training	National, county, sub county and ward supervisors	PD Hearh Training Reports	12months
Output 3: Communities empowered to	Number of children 6-59 months referred for vitamin A supplementation. (Disaggregated 6-11, 12-59months)	CHPs	eCHIS/KHIS	12months

Monitoring, Evaluation & PD Hearth Coordination

DAY 8

Results	Indicators	Responsible	Means of Verification	Frequency
prevent malnutrition.	Number of children 12 - 59 months referred for deworming.	CHPs	eCHIS/KHIS	Monthly
	Number of children 0 - 23 months referred for immunization.	CHPs	eCHIS/KHIS	Monthly
Output 4: PD Hearth households are benefitting from the referral of other services e.g., child protection, Agri nutrition, mental health, IGAs, education services.	Number of PD Hearth children benefiting from the referral of other services	National and County Supervisors	CHP Referral, eCHIS, Form (MOH 100)	Monthly

10 Min**Supervision tools available to ensure the quality of PD Hearth activities**

Instructions: Distribute the sample checklists and monitoring forms (Handouts 29.1-29.6). Review these together.

CHPs will use the following forms:

- Handout 29.1 as a checklist of the materials needed for the PD Hearth sessions.
- Handout 29.2 to track caregivers' menus and cooking materials.
- Handouts 29.4 and 29.5 to keep track of Hearth attendance and home. visits, respectively.

The supervisor of the volunteers (usually the Community Health Assistant and PD Hearth trainers) will use the following monitoring forms:

Handouts 29.4, 29.5, 29.6 to track PD Hearth programs.

10 Min

The monitoring processes

Refer to the Triple 'A' Cycle (on the flip chart) to demonstrate the continuous monitoring process. Emphasize the importance of feedback to CHPs and supervisors as well as to the community. Sharing results with the community increases ownership, encourages discussion and problem-solving, as well as celebrates achievement. How can this information be used to improve programme quality? Seek mutual solutions, monitor how the community is taking charge, and provide refresher training. Frequency of Supervision? Supervise a new site frequently at first; try to be present on the last day of Hearth.

Monitoring of outcomes

Implication for Budgeting (transport and time spent in the field)?

Supervision is time-consuming. It is important to budget sufficient staff time.

10 Min

Community involvement and sustainability

Talk with neighbours (ask whether the PD Hearth caregiver has talked about Hearth). Review the weights of the children in the community over time (from the GMP). Invite the community health committee to share the results of the GMP with the entire community on a regular basis. Help the committee develop posters to show progress (to promote social change). Meet with community leaders to share Hearth outcomes. Document success stories and share them within the village and beyond.

Please briefly go over the PD Hearth Excel Database (Found at nutrition.health.go.ke) with the participants. Refer to Handout 29.7 User Guide for the PD Hearth Excel Database.

Checklist of Materials Needed for PD Hearth sessions (Job Aid)

Handout 29.1: Checklist of Materials Needed for PD Hearth sessions (Job Aid)

Name of the Hearth.....

	Provided by :		
	Community	Caregivers	Implementing Agency
Weighing scales			
Register to track attendance and weights			
Daily menu and recipes			
Cooking pots			
Frying pan			
Cooking utensils			
Bowls			
Cups			
Spoons			
Soap or ash			
Basin			
Towels			
Water pitchers			
Mats			
Cutting boards			
Mortar and pestle			
Fuel/wood			
PD food			
Staple food (rice, maize)			
Knife			
Wooden spoon			
Play material			
Other ingredients			

County NameSub County NameWard Name.

Community Unit NameVillage Name.....

Name of Hearth.

Hearth Session Dates (dd/mm/yyyy): FromTo.

Name of Community Health Volunteer.....

**Handout 29.2: PD Hearth Menu & Cooking Material Tracking Sheet of
 Caregivers for Volunteers**

No.	Name of Caregiver	No. of Children in PD Hearth Programme
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Total		

PD Hearth Menu & Cooking Material Tracking Sheet of Caregivers for Volunteers

Monitoring and Evaluation

No. DAY 1		INGREDIENTS	COOKING MATERIALS	ROLE	DAY 2		INGREDIENTS	COOKING MATERIALS	ROLE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
No. DAY 3		INGREDIENTS	COOKING MATERIALS	ROLE	DAY 4		INGREDIENTS	COOKING MATERIALS	ROLE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
No. DAY 5		al	COOKING MATERIALS	ROLE	DAY 6		INGREDIENTS	COOKING MATERIALS	ROLE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

PD Hearth Menu & Cooking Material Tracking Sheet of Caregivers for Volunteers

3 OF 3

DAY 8

No. DAY 7		INGREDIENTS	COOKING MATERIALS	ROLE	DAY 8		INGREDIENTS	COOKING MATERIALS	ROLE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
No. DAY 9		INGREDIENTS	COOKING MATERIALS	ROLE	DAY 10		INGREDIENTS	COOKING MATERIALS	ROLE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
No. DAY 11		INGREDIENTS	COOKING MATERIALS	ROLE	DAY 12		INGREDIENTS	COOKING MATERIALS	ROLE
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Handout 29.3: Child registration and Attendance Form

County.....Sub CountyWard.....Link Facility

Community Unit Village..... Name of Hearth.

Hearth Session Dates (dd/mm/yyyy): FromTo

Number of Children Participating Community Health Volunteer.....

#	Name of Child	Caregiver's Name	Relationship to the Child	Child's Gender (M/F)	Date of Birth (dd/mm/yyyy)	Age (months)	Disability (Y/ N)	Deworming (Y/N)	MNPs (Y/N)	Vitamin A (Y/N)	Full Immunization (Y/N)
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

#	Attendance and Appetite Test for Hearth Participant Child AND Primary Caregiver* Attendance (Att, Appetite (App))																						
			2		3		4		5		6		7		8		9		10		11		12
Att	App	Att	App	Att	App	Att	App	Att	App	Att	App	Att	App	Att	App	Att	App	Att	App	Att	App	Att	App
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

***IMPORTANT:** Indicate with a checkmark (✓) under the column 'Att' if the PD Hearth AND Primary Caregiver attended the Hearth session for the corresponding day under the column 'Att'. Please also indicate with a check mark (include (✓)) under the column 'App' child passes the appetite test. If the child is 'Red' for MUAC and does not pass the appetite test, please refer the child to the health Facility urgently. Appetite test is conducted by determining if the child finishes at least a half of the hearth meal on the first day and finishes the meal on subsequent days. NB: the feeding should be responsive.

Hearth Register and Monitoring Form

Handout 29.4: Hearth Register and Monitoring Form

County.....Sub County.....

Ward Facility

Community Unit Hearth.....

Hearth Session Dates (dd/mm/yyyy): FromTo.

Number of Children Participating.Community Health Volunteer.....

Child's name	/ / / / /									
	/ / / / /									
Caregivers Name	/ / / / /									
	/ / / / /									
CHILD	1	2	3	4	5	6	7	8	9	10
Child's Sex (M/F)										
Date of Birth (dd/mm/yyyy)										

Child with Disability (Y/N)													
Hearth Session/Round # (e.g., if it is the child's second time attending Hearth, please write '2')													
At Day 1 of Hearth	Date (dd/mm/yyyy)												
	Weight (Kg)*												
	Underweight Nutritional Status												
	MUAC (Green, yellow, red < 115mm)												
At Day 12 of Hearth	Date (dd/mm/yyyy)												
	Weight (Kg)*												
	Weight Gain (Day 12 - Day 1) in grams												
	Underweight Nutritional Status												
	MUAC (Optional)												

***NOTE: Please write "DEFAULT" in the column for weight if child has defaulted and explain reason(s) for default in the 'Comments' section**

Hearth Register and Monitoring Form

3 OF 3

DAY 8

Child No.		1	2	3	4	5	6	7	8	9	10
At Day 30 of Hearth	Date (dd/mm/yyyy)										
	Weight (Kg)*										
	Weight gain (Month 1-Day 1 weight) in grams										
	Gained 400g+ (Y/N)										
	Underweight Nutritional Status										
	MUAC (Optional)										
At 3 months (since 1st day of Hearth)	Date (dd/mm/yyyy)										
	Weight (Kg)*										
	Underweight Nutritional Status										
	Change in Status (Y/N)										
At 6 months (since 1st day of Hearth)	MUAC (Optional)										
	Date (dd/mm/yyyy)										
	Weight (Kg)*										
	Underweight Nutritional Status										
	MUAC (Optional)										
At 12 months (since 1st day of Hearth)	Date (dd/mm/yyyy)										
	Weight (Kg)*										
	Underweight Nutritional Status										
	MUAC (Optional)										
	CHILD	1	2	3	4	5	6	7	8	9	10
COMMENTS: (Explain reason for default if child has defaulted due to death (D), migration (M), referred to hospital (H), etc.		/	/	/	/	/	/	/	/	/	/

Handout 29.5: Volunteer Home Visit Form

County Sub County Ward.....

Facility Village

Community. Hearth.Community Hearth Volunteer.....

OBSERVATION LIST	Day #	Day #	Day #	Day #	Day #	COMMENTS
Answer with Yes (Y) or No (N) or Somewhat (S) or a number where appropriate. Add comments to explain answers.						
Drinking water from safe source (Tap water, borehole or protected well)						
Water is treated (Boiled/chlorinated)						
Water is covered with fitted cover or lid						
Clean separate cup is used for pouring drinking water from the pot						
Handwashing station exists (e.g., tippy tap)						
Jerry cans or water storage containers are clean						
Toilet/latrine is available and used or hole is dug and covered for defecation						
House and/or kitchen is clean						
Food utensils are clean						
Handwashing with running water and soap is practiced by: Caregivers						
Children						

OBSERVATION LIST	Day #	Day #	Day #	Day #	Day #	COMMENTS
Other family members						
Food prepared is nutrient dense as learned in Hearth (includes all Go, Glow and Grow						
Size of portion served is age appropriate						
Caregiver actively feeds the child						
Child is offered more food after finishing first portion						
Caregiver says child is fed 4 - 5 times/ day (including snacks)						
Child uses separate (own) plate, bowl, or cup						
Caregiver is motivated by changes in the child						
Yesterday night, mosquito net was used by the primary caregiver and all children U5 in the household						
Caregiver can say what to do when child is sick (example: feeds more liquid when child has diarrhea and feeds more frequently)						
Caregiver expresses ability to continue practicing what was learned in Hearth at home						
Problems and questions about child feeding and						
care is discussed with the volunteer						

Handout 29.6: Supervision of PD Hearth Session

County.....Sub CountyWard.....

Facility Community Unit. Hearth.

Name of the supervisor..... Date.....

OBSERVATION LIST

Observation list	Day#	Day#	Comments
Answer with Yes (Y) or No (N) or Somewhat (S) # or a number where appropriate. Add comments to explain answers.			
Location of Session:			
Water is from safe source			
Water is treated (Boiled/ chlorine)			
Toilet/latrine available			
Handwashing station with soap exists (e.g., tippy tap)			
Session is conducted by volunteers and/or lead mother			
Primary caregivers are assigned roles during Hearth			
Primary caregivers are the ones cooking the meal			
Primary caregivers can tell you how to cook Hearth menu for one child (using household measures)			
Number of caregivers attending			
Number of children attending			
Evidence of community participation/support			
Hand Washing is practiced: by caregivers by children			
Number of caregivers who bring contribution to meal			
Menu used based on local and affordable food			
Menu is nutrient dense			
Food is prepared according to menu Consistency of Hearth meal is thick enough to slowly run on a spoon (not runny like water)			
Snack is given to children as the caregivers cook the Hearth meal			
Caregivers can recite different types of foods groups: Grow Glow and Go			

Supervision of PD Hearth Session

SUMMARY OF SUPERVISION FINDINGS

HYGIENE	CARING	FEEDING	PRACTISE/ATTITUDE/ KNOWLEDGE/ BEHAVIOR CHANGE

RECOMMENDATIONS AND ACTIONS

ACTION POINTS	BY WHO	TIMELINE

Supervision lead person

Designation.....

Signature..... Date.....

Note: The findings of the supervision should be shared with CHPs and during

Handout 29.7: User Guide for the PD Hearth Excel Database

The PD Hearth Excel Database is used to compile all the data collected during the initial assessment (situation analysis), PD Hearth registration, and for monitoring and follow up of children in the PD Hearth programme. This allows easier access and utilization of

data by staff. For example, clear summary tables are generated and available under different tabs. From the data collection forms (e.g., Child Registration, Hearth Register and Monitoring Form), staff can transfer recorded information into appropriate cells/ columns in the PD Hearth database. Some of the cells/columns contain a drop- down menu or a formula. This formatting is convenient and helps to reduce data entry or calculation errors. For example, child's age (months), underweight nutritional status, WAZ scores, and weight change (g) are calculated automatically.

In the PD Hearth Excel Database, there are eight tabs or worksheets: Initial Assessment; Assessment Report; Monitoring Form; Table; Annual Report; Graph Follow-up; Graph Graduation & Weight Gain; and Graph Default. However, you only need to enter data under two tabs: Initial Assessment and Monitoring Form. All other tabs contain summary charts (e.g., tables, graphs) automatically generated from the compilation of entered data. Please note, when entering the dates, follow the format provided i.e., DD/MM/YYYY. Make sure the default date on your computer is set as DD/MM/YYYY for smooth operation of the database. The default date format on your computer can be changed at the end of this User guide

Tab 1 – Initial Assessment: Enter the registration, initial nutrition assessment and wealth-ranking data for PD Hearth participant children under this tab. From this data, the PD, non-PD, and negative deviant households are identified and displayed under the “Classification” column.

- First, select an appropriate option for the Wealth Ranking Category (i.e., Very Poor, Poor, Rich or Poor, Non-Poor) and the Nutritional Status Category (i.e., Severe, Moderate, Mild, Normal or Severe, Moderate, Normal) based on your country context, using the drop-down menu for each option at the top of the worksheet.
- Enter values under each column according to the headings. Enter values only in the “WHITE” cells as the values in grey-coloured cells (e.g., Current Age, Underweight Nutritional Status, Classification columns) are calculated automatically by the computer. For the Sex, Oedema, MUAC, Wealth Rank and PDI HHs columns, use the drop-down menu to select an appropriate choice for each cell.

Tab 2 – Assessment Report: This tab contains a table and a pie chart which categorizes the total number of children from the initial assessment based on their underweight nutritional status (i.e., % of children who are normal weight or mildly, moderately or severely underweight). This gives a clear picture of the initial level of childhood malnutrition in the community.

Tab 3 – Monitoring Form: This tab contains a monitoring form to track changes in the child's weight, weight-for-age Z score, and underweight nutritional status in the hearth sessions and the follow-ups, including reasons for default. Additional registration information, such as deworming, Vitamin A supplementation, presence of oedema, and full immunization status is also entered under this tab. Based on the child's nutritional status at 3 months, next course of action is identified for each child (i.e., not graduate and repeat hearth, or graduate and continue to monitor).

User Guide for the PD Hearth Excel Database

- First, select an appropriate option for the Nutritional Status Category (i.e., Severe, Moderate, Mild, Normal or Severe, Moderate, Normal) based on your country context, using the drop-down menu at the top of the worksheet.
- Enter values under each column according to the heading. Enter values only in “WHITE” cells as the values in grey-coloured cells (i.e., Current Age, WAZ, Nutritional Status, Weight Change, Adequate Weight Gain columns) are calculated automatically by the computer. For the Oedema, Deworming, Vitamin A Supplementation, Full Immunization, Sex, Round/Session # and Default Reason columns, use the drop-down menu to select an appropriate choice for each cell.

Tab 4 – Table: This tab contains nine summary tables based on the monitoring data. The tables show the number of children (and %) based on underweight nutritional status at different times (e.g. baseline, Day 12, Day 30, 3 months, 6 months and 1 year), number of children (and %) with adequate or inadequate weight gain and amount of average weight gain (at Day 12, 30 and 3 months), and number of children (and %) with improvement or no improvement in their nutritional status to mild/healthy status (at Day 12, 30 and 3 months), as well as the breakdown of the reasons for child default from PD Hearth.

Tab 5 – Annual Report: This tab contains a PD Hearth summary report for the selected fiscal year. The table contains information about the number of children who gained adequate or inadequate weight in PD Hearth session (Day 12) and at follow ups (1 and 3 months), as well as the number of children in different underweight nutritional status categories (i.e. green, yellow, orange, red) at 6 and 12-months post-Hearth. Also, information about the total number of children weighed and those who defaulted is provided along with the breakdown of children based on their enrollment (i.e., 1st, 2nd or 3rd round/session).

- To generate a report, enter the programme name and use the drop-down menu to select or enter a fiscal year.

Tab 6 – GRAPH Follow-up: This tab contains a bar graph showing overall changes in underweight nutritional status of PD Hearth participant children (%) at different time points (e.g., baseline/Day 1, 12, 30 of PD Hearth, and 3, 6, 12 months of post-PD Hearth).

Tab 7 – GRAPH Graduation & Weight Gain: This tab contains six pie charts. The first three charts show the percentage of children whose nutritional status improved (i.e., Mild/healthy vs. still moderate/severe) at Day 12, Day 30 and 3 months. The last three charts show the percentage of children who gained adequate weight (i.e., $\geq 200\text{g}$ at Day 12; $\geq 400\text{g}$ at Day 30; 900g at 3 months).

Tab 8 – GRAPH Default: This tab contains a bar graph on child default rate. The breakdown of number of children based on reasons for default at different time points (at Day 12, 30, and 3, 6, 12 months) is given.

Ministry of Health PD/Hearth Database © World Vision International 2016																										
Wealth Ranking Category		Nutritional Status Category																								
Poor, Non-Poor		Severe, Moderate, Mild, F																								
Registration																										
Child #	County	Sub-county	Facility name	Community Unit	Village	Landmark	Date of Survey (DD/MM/YYYY)	Name of Child	Caregivers Name	Caregiver's mobile number	Sex (M/F)	Date of Birth (DD/MM/YYYY)	Oedema Yes/No	Birth Order	Current Age (months)	Weight (kg)	Underweight Nutritional Status	MUAC (cm)	MUAC LOURCODE	Wealk Rank	Child Disab Y/N	Disab child has difficulty feeding Y/N	Disab child has poor appetite or eats less Y/N	Classification	TEA M	MEMBERS
Page 1																										

Figure 29.1: A snapshot of the excel database

NOTE:

To change the default date format on your computer:

1. Go to Control Panel, and click Regional and Language Options.
2. Under the Formats tab, click the Additional settings (or customize this format) button.
3. Click the Date tab.
4. Use the drop-down menu to select “DD/MM/YYYY” as the default short date format.
5. Click Apply and close.

User Guide for the PD Hearth Excel Database

PD Hearth Coordination mechanism and structures

Coordination is the deliberate collaboration among various stakeholder groups (e.g., government, civil society, and private sector) and other sectors jointly to achieve a policy outcome. The PD Hearth operations will be guided from the national level led by the Head of Nutrition and Dietetics. The key stakeholders include the nutrition-sensitive sectors such as the Ministry of Agriculture, Education, Social Protection, Water, Hygiene, and Sanitation. The figure 29.1 elaborates the structures the PD Hearth approach can leverage on and membership during the implementation from the national to the community.

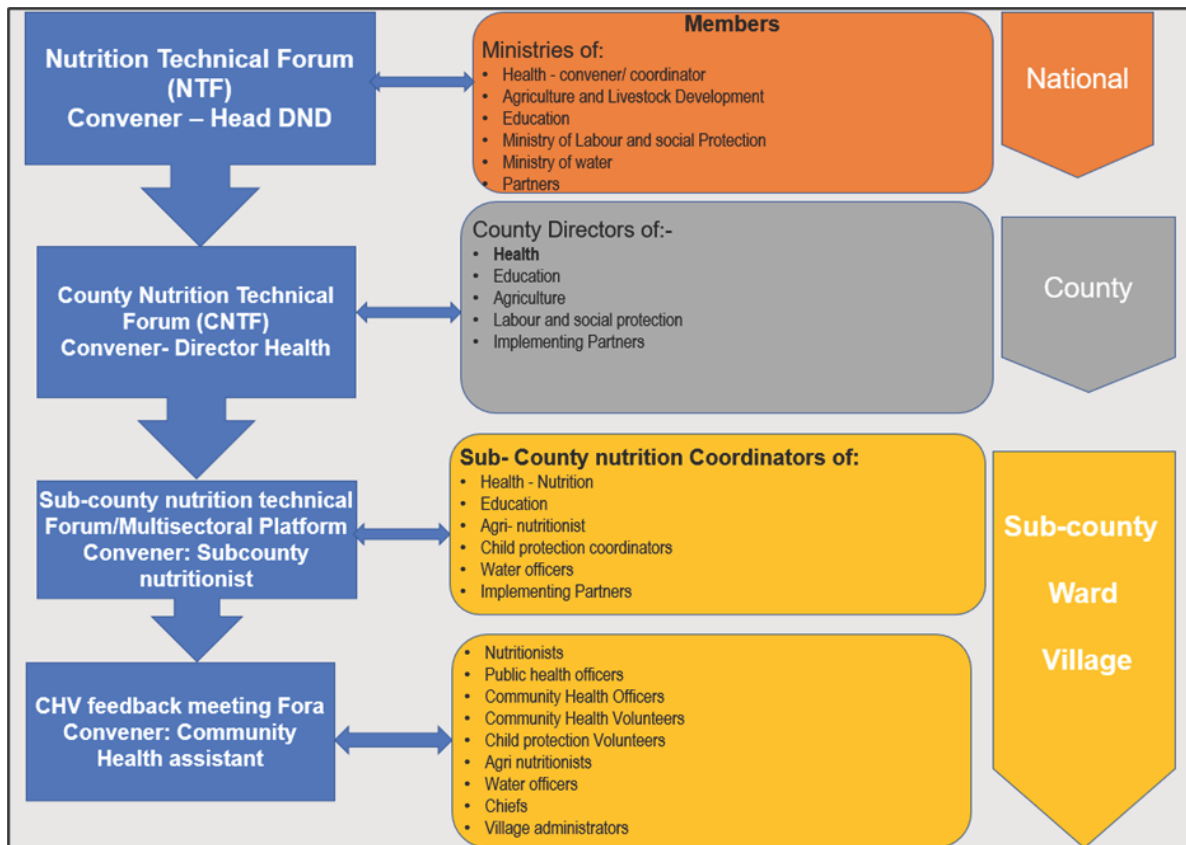


Figure 29.1: PD Hearth Coordination mechanism

Session's objectives

By the end of the session, participants will be able to:

1. Understand the selection criteria of CHPs for training
2. Describe the roles and responsibilities of CHPs required for PD Hearth
3. Describe the skills and knowledge required by CHPs in PD Hearth
4. Describe the number of CHPs required to manage hearth sessions

Materials

- Flip chart
- Marker pen
- Colored papers enough for the class

STEPS

10 Min

1. Selection of CHPs to be involved in the PD Hearth

Ask the participants to brainstorm in pairs what they think are the characteristics of CHPs to be involved in PD Hearth. Ask three sets of pairs to give the responses

Write their answers on the flip chart under the title, "Characteristics of CHPs to be Involved in PD Hearth." Summarize their responses using the following notes:

Characteristics of CHPs to be Involved in PD Hearth

1. Have undergone the 5 days basic CHPs training
2. Have good communication and motivational skills
3. Active members of the Community Health Units (CHUs)
4. Willing to work on volunteer terms and conditions
5. Willing to be guided
6. Have a passion in working with children and nutrition programs
7. Adults of sound mind
8. Must be able to read and write

NB: In areas with no established Community Health Units (CHUs) the process of establishing them should be initiated as stipulated in the Kenya Community Health Policy 2020-2030 on <https://www.health.go.ke/wp-content/uploads/2020/07/Kenya-Community-Health-Policy- Signed.pdf>

10 Min

2. Roles of CHP

Ask the participants 'What are the roles of CHPs? Write their answers on the flip chart under the title "Roles and Responsibilities of Community Health Promoters in PD Hearth that provide the participants with the headings in the table below showing a role, activity by CHP and skills required. The skill column headings could also be provided if more guidance is needed for the group.

Roles and responsibilities of CHPs in PD Hearth

Role's skills and knowledge of CHPs in PD Hearth

Roles	Activity	Skills	Knowledge required
Community mobilization	<ul style="list-style-type: none"> Identify key stakeholders in community Identify key locations to promote/health educate communities PD Hearth (e.g., church setting, community meeting, communal gardens) Mobilize a PD Hearth Committee (consists of leaders, fathers, grandmothers of community) 	<ul style="list-style-type: none"> Motivational skills Communication skills Negotiation skills Listening skills Observation skills 	<ul style="list-style-type: none"> Understand Theory of PD Hearth and importance of PD Hearth Various roles important to the success of PD Hearth in community Who the decision-makers at household level
Growth monitoring	<ul style="list-style-type: none"> Weighing and MUAC screening of children 6-59 month 	<ul style="list-style-type: none"> Accurate measurement of MUAC and weight 	<ul style="list-style-type: none"> Importance of proper weighing technique Ability to weigh properly How to use and weight and MUAC measurements
	<ul style="list-style-type: none"> Counsel caregivers 	<ul style="list-style-type: none"> Counselling skills 	<ul style="list-style-type: none"> MIYCN practices Communicate effectively with caregivers
Active participation in PDI	<ul style="list-style-type: none"> Guide on the location of the homes Help in observing 	<ul style="list-style-type: none"> Observation skills Semi-structured interviewing skills Analytical skills 	<ul style="list-style-type: none"> Factors that contribute to good child growth Ability to Ask questions Reflection of information gathered and how it contributes to child growth Guided identification of good/bad behaviours
Supervise Menu Preparation	<ul style="list-style-type: none"> Support Hearth menu Preparation 	<ul style="list-style-type: none"> Supervisory and observation skills 	<ul style="list-style-type: none"> Basic food groups 'Special' (PD) foods Preparations of recipes Calculating portion size for children using household measures

Roles	Activity	Skills	Knowledge required
Conduct Hearth sessions	<ul style="list-style-type: none"> Motivate/organize children/caregivers to attend Hearth Sessions 	<ul style="list-style-type: none"> Leadership skills Organizational skills 	<ul style="list-style-type: none"> Goals of programme What is a Hearth How to set up a Hearth Role of each person
	<ul style="list-style-type: none"> Supervise caregivers in cooking meals / feeding children 	<ul style="list-style-type: none"> Supervisory Skills 	<ul style="list-style-type: none"> Responsive Feeding MIYCN practices (Frequency, amounts) Proper Hygiene and sanitation issues.
	<ul style="list-style-type: none"> Teach and demonstrate simple nutrition/health/hygiene/caring messages 	<ul style="list-style-type: none"> Teaching Skills Demonstration skills 	<ul style="list-style-type: none"> Identify good/bad practices (MIYCN, illness, care, hygiene) How to give positive support
	<ul style="list-style-type: none"> Monitor attendance, progress, food contributions 	<ul style="list-style-type: none"> Monitoring skills Recording skills 	<ul style="list-style-type: none"> Understand how to complete basic forms Reflect on the information and what can be done to improve session
Follow up home visits	<ul style="list-style-type: none"> Household visits to support caregivers with new behaviours 	<ul style="list-style-type: none"> Problem solving skills Communication skills Counselling skills 	<ul style="list-style-type: none"> Purpose for the home visit Use of Home visit Observation Checklist form Problem Solving with Caregiver Referral of severe cases to health facility
Communication	<ul style="list-style-type: none"> Communicate concepts and methods with caregivers and community members in simple terms 	<ul style="list-style-type: none"> Communication skills 	<ul style="list-style-type: none">
Reporting	<ul style="list-style-type: none"> Reporting regularly to the community Health Assistants (CHAs) 	<ul style="list-style-type: none"> Reporting skills 	<ul style="list-style-type: none"> Ability to communicate programme progress and results orally

Roles and responsibilities of CHPs in PD Hearth

10 Min

- Based on the skills and responsibilities identified for PD Hearth volunteers, ask the group how community health promoters should be selected.

Probing questions could include the following:

- Who should select the volunteers? For areas without community health structure (community members and leaders)
- What qualifications does a volunteer need? (Able to read and write, live in the community, committed, good behavior, respected by the community, familiar with the area, passion for nutrition)
- Is it possible to find someone with these qualifications in your community? (Selected by community as part of community mobilization process)
- Are the people who have these qualifications in a 'higher' social group, and might that make it more difficult for them to interact with poor caregivers?

Roles and responsibilities of CHPs in PD Hearth

10 Min

- Ask participants how CHPs will learn the necessary skills. Ask them to put an 'E' beside those skills they will learn through experience and a 'T' beside those skills they will learn through training. Emphasize that volunteers will learn primarily through doing and practice. For example, they will discover unusual and good practices that contribute to good health and nutrition by participating in the PDI, and they will learn good cooking and feeding by practicing cooking the menu together.

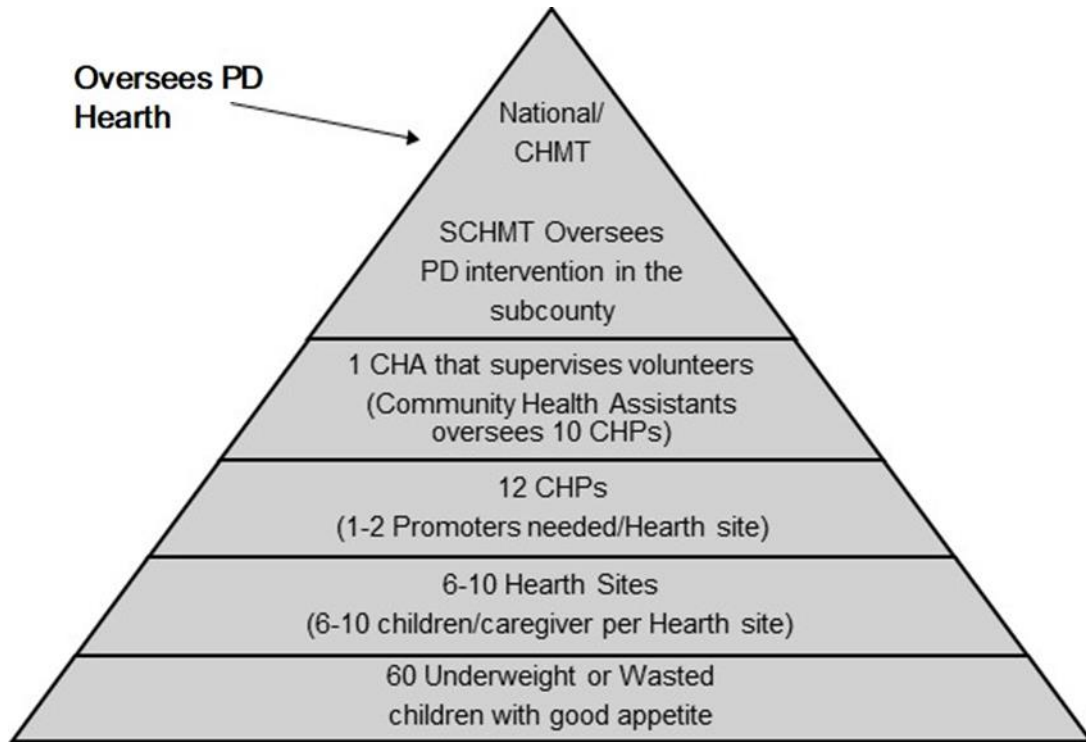
30 Min

- Discuss the following questions with the group:
 - What is the best way to ensure that CHPs can conduct PD Hearth with confidence? Explore ways for supportive supervision and management of volunteers, like frequency of supervision visits by MOH staff to Hearth sessions (i.e., ideally, for the first round of Hearth, the MOH staff support all days of Hearth and thereafter, visit one day per round of Hearth to support/observe volunteers).

How many CHPs are required? The diagram below shows the number of staff required to manage 60 children I hearth sessions

Note: Refer to supervision tools found in Session 29.

Hearth Staffing requirements



Post-test

35 MIN

Materials

PD Hearth Post-test

Distribute Post-test provided in the MS Word document. Have the participants complete it and hand it's in. Facilitators mark the tests while the participants complete their PD Hearth Action Plans

(Session 33). The marked post-tests will be returned with the pre-test results

Session Objectives

By the end of this session, participants will be able to:

1. Explain how PD hearth will be integrated with (an) additional prevention intervention(s) into PD Hearth +
2. Describe the specific role(s) of each stakeholder involved in PD Hearth +
3. Understand how to implement PD Hearth +.

What is PD Hearth +

PD Hearth+ is the revised model that includes PD Hearth integrated with additional prevention interventions. These may include additional nutrition specific and nutrition sensitive interventions that contribute to prevention of malnutrition, strengthening the overall program to achieve the three objectives of Hearth (prevention, rehabilitation, and sustaining rehabilitation) and the overall goal of reducing child malnutrition in the community.

For sustainable results, the PD Hearth + Programme needs to highly invest in PD Hearth for 2 to 3 years and PD Hearth+ for about 5 years implemented in a phased approach. Further, it requires leadership support and intensive human resources. Successful PD Hearth+ can bring the prevalence of underweight cases to less than 6 children per village at risk of underweight, or wasted. After this achievement, the program can be phased out to just focus on the prevention interventions such as growth monitoring and promotion of recommended infant and young child nutrition counseling and support.

Group Discussion

Divide participants into groups and have them write on the flip chart the importance of collaborating and networking in PD Hearth and also discuss the areas of collaboration and persons involved in food security, health and nutrition.

1. What are the advantages of collaborating/networking?

There is sharing of human/financial resources/information/materials/facilitation, leveraging on technical expertise, joint targeting etc. For example, if another group is doing WASH, orienting it to PD Hearth improves on the impact. Working in the same area increases impact and referral of cases.

2. With whom does PD Hearth need to collaborate or network?

Health facility management teams, Sub county health management teams, County health management teams, International Non-Governmental Organizations [NGOs], local NGOs, local leaders, local networks [formal and informal], community-based organizations (CBOs), non-government health services [private and mission hospitals, development partners promoting food security, health and nutrition interventions within the community and other line ministries e.g. Ministry of Agriculture, Ministry of Water, Ministry of Education, State department of Social Protection, etc.

3. What are some possible interventions that PD Hearth can integrated with?

- Strengthened Growth Monitoring and Promotion (GMP)/ Family MUAC
- Micronutrient Powders
- Baby-friendly community initiative and MIYCN counselling
- Day care centres
- Nurturing Care / Mother to Mother support Groups
- Bio-fortification
- Home/Kitchen Gardens
- Table banking/ Savings Groups
- Linkages with livelihood initiatives /Income generating activities ((e.g., chickens, rabbits, goats, etc.)
- Farmer cooperatives or revolving funds
- Community-based income-generating activities (e.g., honey processing, milk value addition, peanut butter making, beadwork, weaving etc.)
- WASH – Water sanitation and Hygiene interventions (Community Led Total Sanitation (CLTS), Water harvesting interventions
- Malaria intervention programs (LLITNs distributions etc.)
- Community health and nutrition days (cooking demonstrations, food preservations and storage, key messaging, World Breastfeeding Week (WBW), World Food Day etc.)
- Malezi bora (Growth monitoring and mass MUAC screening, mass deworming, Vitamin A supplementation immunization interventions etc.)
- Integrated Community Case Management of Minor illnesses (ICCM)

Table Key stakeholders and interventions to collaborate/network with PD Hearth

Sector/Stakeholder	Interventions
Ministry of Health	<ul style="list-style-type: none"> • Strengthened Growth Monitoring and Promotion (GMP)/ Family MUAC Micronutrient Powders • Baby friendly community initiative and MIYCN counseling • Nurturing Care / Mother to mother support Groups. • WASH – Water sanitation and Hygiene interventions (Community-led total sanitation (CLTS), Malaria intervention programs (LLITN distributions etc.) • Community health and nutrition days (cooking demonstrations, food handling and storage, key messaging, World Breastfeeding Week (WBW), etc.) • Malezi Bora (mass MUAC screening, Mass deworming, Vitamin A supplementation, immunization interventions, etc.) • Integrated Community Case Management of Minor illnesses (ICCM)
Ministry of Agriculture and Livestock Development	<ul style="list-style-type: none"> • Bio-fortification • Home/Kitchen Gardens • Table banking/ Savings Groups • Linkages with livelihood initiatives /Income generating activities (e.g., chickens, rabbits, goats, etc.) • Farmer cooperatives or revolving funds • Community-based income-generating activities (e.g., honey processing, milk value addition, peanut butter making, beadwork, weaving etc.). • Food preservation, storage, and utilization demonstrations • World Food Day and farmers field days. • Water harvesting interventions.
Ministry of Water, Sanitation and Irrigation	<ul style="list-style-type: none"> • Provision of safe water for domestic use and crop production • Sanitation services
Ministry of Education	<ul style="list-style-type: none"> • School health programs e.g., Vitamin A supplementation, Deworming, school meals programme etc.
Ministry of Labour Gender and Social Services (Directorate of Children Services)	<ul style="list-style-type: none"> • For social protection services and rights of the children
Ministry of Interior and National Administration	<ul style="list-style-type: none"> • Support in community mobilization and security during the PD Hearth
Ministry of Lands Housing and Urban Development	<ul style="list-style-type: none"> • Proper land planning especially in urban areas to provide for public amenities in which PD Hearth sessions can take place

PD Hearth + and Integration

Note: The table mainly discusses the interventions by the collaborating sectors/stakeholders mainly at national level. Ask the participants to discuss the interventions by the sectors/stakeholders at local level

How can you ensure the learning from the PDIs, and other key health and nutrition messages are shared with the entire community on a continuous basis?

Sharing the messages is done through community feedback sessions. Ministry of Health to involve the local leaders and all the other stakeholders promoting food security, health and nutrition interventions in that area.

Stakeholders' involvement can be achieved during the community mobilization and training of CHPs (even PD Hearth TOFs if possible), to ensure that the key messages and unique findings from PDIs are incorporated into the existing system for sharing. Food security, Health and Nutrition messages (selection of only six key messages for a 12-day PD Hearth Session may be limiting so it would be good to scale-up the learning from PD Hearth to continue after the PD Hearth sessions). Share key messages with the community during visits to the health facility, counseling sessions for caregivers, mother care groups, family groups, mother to mother support groups, and/or regular monthly GMP sessions (if system is in place) and during forums by the other collaborating institutions on food security, health and nutrition interventions. During community dialogue days, advocate, educate and remind the community on an on-going basis. Key messages can also be communicated through PD Hearth launch, community forum radio talk shows (Local FM stations), documentaries, IEC materials.

Key contextualized Hearth messages and recipes can be shared through mother support groups or care groups as they are simple messages.

PD foods should be promoted through such groups and farmers groups so more households can grow and consume micronutrient rich low-cost foods.

By integrating the PD messages derived from the formative research within the community, promotion of high impact behavior changes to the larger population beyond households with malnourished children will be enhanced.

PD Hearth+ is able to integrate prevention or food security interventions to better address the outcomes of preventing and rehabilitating malnourished children holistically. PD Hearth+ can be implemented in a phased approach, for example, focusing on implementing decentralized GMP in the first two years of implementation and then integrating PD Hearth implementation for the following three years. Other prevention or food security interventions could be implemented as contextually appropriate.

Go through the table in Handout 32.1 with participants and enlighten them on how they could use the table to improve the integration of different interventions with PD Hearth.

Handout 32.1: PH/Hearth+: Scale up and integration of PD Hearth with both Nutrition specific and Nutrition Sensitive Interventions

Sector/ stakeholder	Interventions	Points of Integration	Key Contributing Success Factors to Consider	Resources
Nutrition Interventions				
Ministry of Health	Micronutrient Powders (MNPs)	<ul style="list-style-type: none"> • Use only 1 sachet of MNP for hearth meal or home meal every third day for 1child where MNPs are available. During the hearth session the child should be able to use 5 sachets. Then provide the balance (55 sachets) if the budget allows, or ask the caregiver to buy for the remaining days after completing Hearth sessions for the Hearth participant households. • Each child should receive a minimum of 60 sachets within 6 months Education on how to use MNP sachets should be provided during Hearth session and caregivers should practice using it before feeding children • Message should be clear that the MNP sachets provided are ONLY for the Hearth participant child <p>NB: Mothers are encouraged to procure MNPs from shops</p>	<ul style="list-style-type: none"> • MNPs can help to meet Hearth meal criteria especially during food insecure time periods since it's difficult to meet iron, zinc minimum requirements of Hearth meals in food insecure contexts • MNPs can be accessed in the health facilities or at retail level in shops/chemists. 	<ul style="list-style-type: none"> •PD Hearth menu calculator •MNP Guideline http://www.nutritionhealth.or.ke/wp-content/uploads/Downloads/MNP%20guideline.p

Sector/ Stakeholders	Intervention	Points of integration	Key Contributing success factors to consider	Resources
Ministry of Health	. Vitamin A supplementation and deworming	<ul style="list-style-type: none"> • Ensure provision of Vitamin A supplements (VAS) at 6 - 11 months, the 12 - 59months integrate VAS + deworming to be provided at 6 months intervals. 	This can be provided through the health facilities, Early Childhood Development centers (ECD), outreaches or at community level	<ul style="list-style-type: none"> •Integrated VAS+D guideline for children aged 6-59 months in Kenya •MCH Hand Book
Ministry of Health	. Health/ Nutrition delivery platforms, Mother Support Groups, Family Groups, Youth Clubs, Mobile Clinics, etc.	<ul style="list-style-type: none"> • Share contextualized key Hearth messages during the GMP or MIYCN messaging session (1-2 per session) to address prevention • Share list of PD foods with households (micronutrient-rich) • Teach caregivers how to create hand washing stations while sharing important hand washing messages 	<ul style="list-style-type: none"> • Involve both mothers and fathers (and in some contexts where grandmothers and grandfathers play a significant role in child caring, involve grandparents too) during the group sessions or for some selective sessions to increase involvement of all family members in child caring practices and increase family support 	<ul style="list-style-type: none"> • MIYCN policy • Community Baby Friendly Initiative training manual (c-BFCI)

Sector/ Stakeholders	Intervention	Points of integration	Key Contributing success factors to consider	Resources
Nutrition-Sensitive Agriculture, Education, Water, Social Protection Interventions				
Ministry of Agriculture	Kitchen/Home Gardens	<ul style="list-style-type: none"> • Share list of PD foods to promote in kitchen gardens • Promote integrated food production (crops, animals, and fish farming) in the kitchen garden where possible • Provide kitchen garden supplies and seeds to PD Hearth participating caregivers 	<ul style="list-style-type: none"> • Pair kitchen garden training with training on advantages of mixed farming and how to produce organic fertilizer using animal manure (e.g., chicken droppings) to increase crop yield and supplement feed for fish 	<p>A resource manual for Agri-nutrition in Kenya (2017)</p> <p>. Agri nutrition dialogue cards</p> <p>. https://www.fh.org/2016/03/14/build-your-own-keyhole-garden/</p> <p>. Agri-nutrition Implementation strategy</p>
Ministry of Agriculture	Bio- fortification	<ul style="list-style-type: none"> • Identify the vitamins and minerals that may be deficient in the larger population • Through Hearth menu design, identify the vitamins and mineral requirements that are most difficult to meet and try to identify bio fortified crops high in those specific vitamins/ minerals 	<ul style="list-style-type: none"> • Utilize farmer's associations to be seed multipliers for the bio-fortified crops and to increase demand in community groups with trainings and seed capital (where possible) to initiate income-generating activities 	<p>A resource manual for Agri-nutrition in Kenya (2017)</p> <p>. Agri nutrition dialogue cards</p> <p>. Agri nutrition Implementation strategy</p>
		(e.g., Iron requirements are difficult to meet and population commonly consume beans, thus explore biofortified high iron beans)		

Sector/ Stakeholders	Intervention	Points of integration	Key Contributing success factors to consider	Resources
Ministry of Education/ Ministry of Agriculture and Livestock development	School Gardens/ livestock projects/ 4K club sessions	<ul style="list-style-type: none"> Share Hearth messages and PD food list with schools so that some PD foods and micronutrient-rich foods can be planted/raised in the school gardens and/or by the 4K club members 	<ul style="list-style-type: none"> Ensure the PD foods are promoted to the students and encourage them to also try and plant these foods and/or initiate small stock (e.g., poultry/ rabbits) projects at home to improve on the locally available micronutrient rich foods in the households 	<ul style="list-style-type: none"> A resource manual for Agri-nutrition in Kenya Agri nutrition dialogue (2017) Agri-nutrition Implementation strategy
Ministry of Agriculture and livestock development	Animal revolving scheme/ Agro-based livelihoods initiatives	<ul style="list-style-type: none"> Provide PD Hearth participating caregivers with animal breeding stock (e.g., rabbits or chicks) as incentive rather than monetary incentive if possible (varies by context) Can include PD Hearth participant households as part of animal revolving scheme 	<ul style="list-style-type: none"> Select animals whose manure could be turned into organic fertilizer Try to avoid animals that are highly susceptible to disease and consider those that require little feed and management Animals that can provide animal source foods are an added benefit Animals that reproduce quickly another added benefit 	<ul style="list-style-type: none"> Climate smart animal health technology innovations and management practice Training of Trainers' Manual

Sector/ Stakeholders	Intervention	Points of integration	Key Contributing success factors to consider	Resources
Ministry of Education	Improve School meals to include PD foods Increase coverage of school feeding program	MOH can conduct GMP in collaboration with Ministry of Education	increase coverage of school feeding program	school feeding manual Kenya school health policy 2018
Ministry of Water, Sanitation and Irrigation	WAS H Irrigation water provision	. Water provision both for agriculture and. Provision of sewerage service s	Increase access to sustainable water and sewerage services.	National guide lines on UHC / PHC
Ministry of Labour and social protection (State department of social protection)	Create opportunities to support on livelihood and welfare for the poor and vulnerable household.	Enhance the capacity & opportunities for the poor & vulnerable households to improve and sustain their livelihoods and welfare	Improve livelihoods for the poor and vulnerable households hence increasing their ability to access PD hearth foods	Kenya constitution 2010 Chapter 4: Bill of rights
	Registration of self- help groups	Forge partnership among groups and communities through registration of self- help groups to become active participants in development of themselves and society		

Sector/ Stakeholders	Intervention	Points of integration	Key Contributing success factors to consider	Resources
Development partners (WFP, Hellen Keller, UNICEF, FAO, GAIN, Worldwide concern, save the children, shofco, Malteser, plan international	Promotion of initiatives/interventions to support food security, health and nutrition	Work with MOH / DFWND & other line ministries/ departments to promote *nutrition specific and *nutrition- sensitive interventions	PD Hearth as nutrition sensitive is good intervention to prevent malnutrition	KNAP/ CNAP documents CIDP and AWP documents for reference
Other PD Hearth Support Interventions				
Ministry Interior coordination and National administration	Community mobilization for the PD Hearth Maintenance of peace and security to the people and property within the community during PD Hearth	Involve the Chiefs and/or Assistant Chiefs as well as the other community leaders when introducing PD Hearth to the community	Chiefs and Assistant chiefs play a crucial role in community entry and mobilization They also maintain peace and security to the people and property during the PD Hearth process.	

Nutrition specific interventions include; breastfeeding, complementary feeding, improved hygienic practices, Vitamin A supplementation, Zinc supplements for diarrhea management, multiple micronutrient powders, de-worming. Iron-folic supplements for pregnant women, iodized salt.

***Nutrition-sensitive** (agriculture, Water, Social protection, Education)

Sustainability of PD Hearth Outcomes

Guide the participants in a discussion on how to sustain the achieved PD Hearth outcomes and the integration mechanisms.

- Solicit for commitment and support of the leadership within the Ministry of Health and the other stakeholders' leadership, as well as with community members and leaders. – Plan for forums (e.g., breakfast meetings with the leaders, biannual feedback meetings to report back on PD Hearth gains etc.). Use real data – from your assessments, PDIs, and so forth to advocate and inform the leaders about the extent of nutrition problems and the potential positive outcomes using resources already in the community.
- Constitute coordination structures for the PD Hearth interventions at both levels of governments (National and County) with a clear engagement guidelines and communication strategy.
- Get buy-in of the relevant PD Hearth stakeholders to ensure ownership and active involvement in the PD Hearth process. Advocate for co-planning for the implementation of PD Hearth
- Share documentation of the PD Hearth work

Session Objectives:

By the end of the session, participants will be able to

1. Identify activities to implement in PD Hearth
2. Develop an implementation plan

Preparation

- Print Handout33.1

Materials

- Handout33.1: PD Hearth Action Plan

STEPS

15 Min

1. Participants from county or sub-county work together to develop an action plan based on activities in Handout 33.1: 'PD HEARTH Action Plan'.

30 Min

2. Each county or sub-county briefly presents its action plan. Participants and facilitators give feedback on the plan.

Handout 33.1: Action Plan for PD Hearth National/County/Sub County

Prepared by..... Date:.....

COUNTY..... SUB COUNTY.....

Objectives	Activities	Responsible person	Time frame	Resources/ input	Source of funds	Comments
To conduct nutritional assessment of children 6-59 months	Set a regular Growth Monitoring Program if it does not exist and strengthen services at the community level					
Determine feasibility of PD Hearth	Decide whether the PD Hearth approach is feasible in the target community using secondary data or recent GMP data (within last 6 months, the more recent, the better)					
To conduct community mobilization	Meet with MOH staff (county and, sub- county health office) and explain the PD Hearth approach to obtain buy-in and support					
	Identify community leaders using existing community health promoters and plan to meet with community leaders, religious leaders and women representatives					
	Ask community leaders for their permission and invitation to use the PD approach					
	Ask the existing local health systems committees (e.g., Community Health Committee) for their support with PD Hearth approach and discuss ways to describe PD Hearth concept in local language through stories or skits. Discuss volunteer selection if no volunteer group or if existing					

Action Plan for PD Hearth National/County/Sub County

DAY 9

Objectives	Activities	Responsible person	Time frame	Resources/ input	Source of funds	Comments
	volunteers have heavy workload.					
	Engage the community to define the problem - Conduct first community introduction meeting. Discuss about the issue of childhood malnutrition, some causes and common challenges and constraints and PD concept and PD HEARTH program.					
	Involve men, grandmothers and mothers, health centre staff, community health promoters traditional birth attendants (TBAs), traditional healers and religious leaders.					
To conduct community situation analysis	Conduct community mapping and transect walk					
	Conduct Wealth Ranking with community members					
	Conduct Weighing of all children 6-59 months of age; Seasonal Calendar; and Market Survey					
	Analyze the situation analysis findings					
	Conduct community feedback session: share the results of the situation analysis. Share results of the weighing with the community and re-explain the PD concept through visual posters or skits. Also, can share the community mapping and seasonal calendar flip charts. Discuss the promoter's identification if promoters have not been selected yet and select promoters.					

Action Plan for PD Hearth National/County/Sub County

DAY 9

Objectives	Activities	Responsible person	Time frame	Resources/ input	Source of funds	Comments
	Conduct community mapping and transect walk					
To conduct PDI in the community	Prepare for PDI - identify 4 PD, 2-3 Non-PD and 1-2 ND HHs to visit. Visit 1-2 HHs with children with disabilities yet who are healthy. Have promoters help locate the households.					
	Analyze the PDI data/results					
	Design the 6 key Hearth messages					
	Conduct community feedback session: Share					
	PDI findings with the community.					
To develop hearth menu	Design the Hearth menu					
Capacity building	5 full-day trainings inclusive of field work					
	Conduct follow-up training days with volunteers to provide feedback					
Conducting Hearth sessions	Identify PD Hearth participant children and primary caregivers. Meet with PD Hearth participants 1-2 weeks before first day of Hearth to discuss location and time for meeting and decide what and how much of ingredients each primary caregiver will bring. Check the mother and child health					

Action Plan for PD Hearth National/County/Sub County

DAY 9

Objectives	Activities	Responsible person	Time frame	Resources/ input	Source of funds	Comments
	handbook to ensure child received full immunization for age, Vitamin A in last 6 months and deworming					
	Inform promoters and Health centre staff of PDHEARTH participant children and primary caregiver and ask for their support in providing participant children with immunization, Vitamin A and/or deworming if necessary for some children.					
	Conduct first Hearth session 10-12 days long.					
Home visits and follow- up	Promoters conduct 2-3 days of Household follow- up visits for 2 weeks after Hearth.					
	Repeat Hearth as needed. Monitor weight of PD Hearth participant children at 12 Days, 1 month, 3 months, 6 months, and 12 months from 1st day of Hearth.					
	Enter monitoring data into PD Hearth Excel or online database					
	Involve Community Health Promoters in monitoring					
	progress in the nutritional status of all children in the target group or PD Hearth participant children					
	Conduct Appreciation/Graduation Day for community after 90 working days					

Action Plan for PD Hearth National/County/Sub County

DAY 9

Objectives	Activities	Responsible person	Time frame	Resources/ input	Source of funds	Comments
To scale up PD Hearth	Expand the PD Hearth program to additional communities if needed					
To develop an exit strategy	Develop an exit strategy for PD Hearth once underweight problem is eradicated in the target area					

Final Evaluation and Closing

40 MIN

DAY 9

Session Objectives:**By the end of the session, participants will be able to**

1. Identified key areas of learning
2. Provide feedback on the training

Preparation

- Flipchart with 'Target Evaluation Dart Board'
- Print Handout34.1

Materials

- Target Evaluation flip chart from Day 1 for comparison
- Marker pens
- Handout34.1: Workshop Evaluation

STEPS

10 Min**1. Repeat the 'Target Evaluation' exercise from Day 1.**

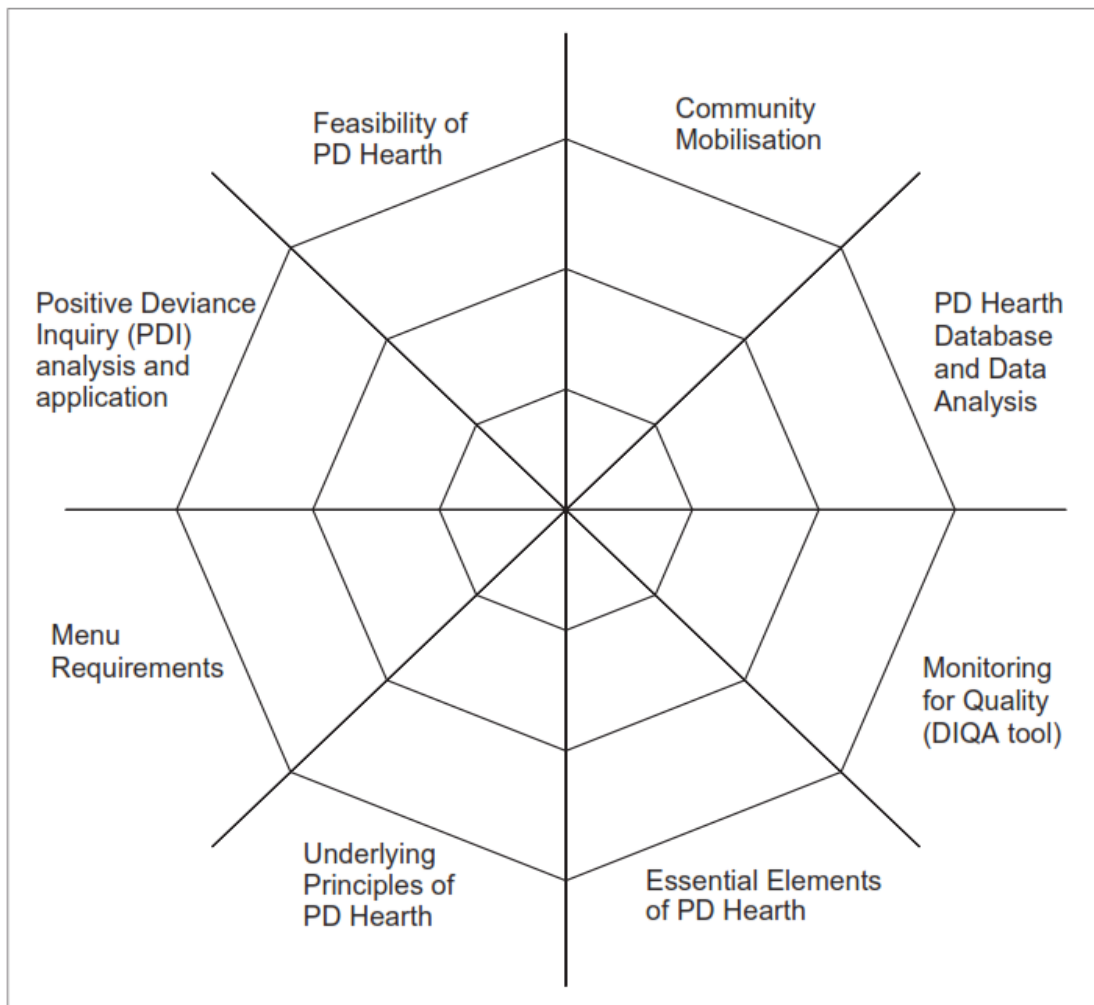
- Ask the participants to consider their understanding and skill in each of the eight areas on the 'Target Evaluation Dart Board' and fill up using a dot symbol with a marker pen. The more competent they feel in an area, the closer to the centre of that area they place a dot. For areas in which they feel less confident or knowledgeable, the closer to the outer edge they place a dot.
- Compare the first day's chart with the final day's chart. Discuss where participants feel they have grown in knowledge and skill. Congratulate them on their great work.

10 Min**2. Have participants fill out Handout 34.1: 'Evaluation Form' (an evaluation form for the course)****10 Min****3. Explain the next steps in TOF training:**

- Participants will come up with workplans depending on areas of work.
- Each participant will receive his or her final marks and next steps from the master trainer

10 Min**4. Thank the county, planners and logistics people. Thank participants for their great work**

Target Evaluation Dart Board



Workshop Evaluation

Handout 34.1: Workshop Evaluation

Thank you for attending this PD Hearth Training of Facilitators. We hope you enjoyed your time, and that the workshop was a meaningful experience for you. Please take a few minutes to complete this evaluation form. Your feedback is valuable and provides helpful information that will be used to plan the next workshop.

1. Was your expectation addressed?

Yes

Maybe

No (Explain)

2. What do you feel was the most helpful part of the workshop? (For example, a particular session, a working group, a contact you made, certain resource material you obtained)

3. Please share some specific ways that you and/or your program will apply the helpful information you noted in above question

4. What do you feel was the least helpful part of the workshop?

5. Give suggestions on how to improve this?

6. For each item below, please tick only a single appropriate response

		Not at all	Somewhat	Very much
	The training was well organized			
	The presenters were well prepared			
	I have gained new knowledge and skills			
	Training facilities were adequate			

Thank you for your feedback!

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MINISTRY OF HEALTH



World Food Programme

