MINISTRY OF HEALTH

REPUBLIC OF KENYA

Training of Facilitators for Positive Deviance Hearth Handout

WFP World Food Programme

World Vision

Terms of Use

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.

Foreword

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
AG. DIRECTOR GENERAL FOR HEALTH

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

Dr. Mulwa A.M.
AG. DIRECTOR OF MEDICAL SERVICES/PREVENTIVE & PROMOTIVE HEALTH

Acknowledgement

The Positive Deviance/Hearth Training of Facilitators manual was adapted in Kenya under the leadership of the Ministry of Health through the Division of Nutrition and Dietetics. The process was done in partnership with the World Food Programme (WFP), World Vision Kenya, Ministry of Agriculture and Livestock Development and Action Against Hunger (ACF), Concern Worldwide (CWW), Global Alliance for Improved Nutrition (GAIN), Hellen Keller, Community Connect for Communities and the participation of the implementing Counties. Their technical support is highly appreciated and acknowledged. The Ministry extends special appreciation to the WFP for their financial support towards the adaptation of this training manual.

The core team is especially recognized comprising of Grace Gichohi, Leila Akinyi, Julia Rotich, Florence Mugo, John Mwai, Caroline Arimi, Lucy Kinyua, Alice Wanjiru and Dr. Betty Samburu - Division of Nutrition and Dietetics; Zachary Muriuki - MOH-Universal Health Care Secretariat; Hillary Chebon, Tabitha Waweru - Division of Community Health; Jessica Mbochi, Mambo Mohamed, Ann Mugo - Nairobi City County; Karen Kerubo - MOH- Vihiga County; Carren Akinyi Nyada, Florence Emali - MOH-Kakamega; Monica Kirugu - MOH–Embu County; Elizabeth Mutua –MOALD; Nyawa Benzadze - Kilifi County and Caroline Chiedo – WFP for their technical input during the adaptation process.

The Nutrition and Dietetics Division greatly appreciates the Lead consultant, Daniel Muhinja for providing the technical support throughout the whole adaptation process and Dennis Matendechere - WFP for the design work and illustrations.

We acknowledge the previous contributors and technical reviewers of the third edition that included: Diane Baik, Naomi Klaas (consultant), Carmen Tse, Rose Ndolo, Carolyn MacDonald, Miriam Yiannakis, Alison Mildon, Marion Roche, Melani Fellows, Christina Gruenewald, Monique Sternin, Judiann McNulty (consultant) and SPOON Foundation's Nutrition Advisors for the Disability Inclusion sections.

Veronica Kirogo
HEAD, DIVISION OF NUTRITION AND DIETETICS

Table of Content

Table of Content

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

Operational Definitions

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.

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	• 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)	• 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	• Weigh children	• Importance of proper weighing technique • Ability to weigh properly
	• Plot weights on growth chart	• Plot and interpret growth lines
	• Counsel caregivers	• IYCF practices • Communicate effectively with caregivers
Active participation in PDI	• Observation skills	• Factors that contribute to good child growth
	• Semi-structured interview skills	• Asking questions
	• Guided identification of good/ bad Behaviours	• Reflection of information gathered and how it contributes to child growth
Menu Preparation	• Making menus for Hearth	• Basic food groups • 'Special' (PD) foods • Preparation of recipes • Calculating portion size for children
Conduct Hearth sessions	• Motivate/organize children/ caregivers to attend Hearth	• Goals of Programme

Skill	Activities	Knowledge required
		• What a Hearth is • How to set up a Hearth • Role of each person
	• Supervise caregivers in cooking meals / feeding children	• Active feeding • IYCF practices
	• Teach simple nutrition/health/ hygiene/caring messages through example and talking	• Identify good/bad practices (IYCF, illness, care, hygiene) • How to give positive support
	• Monitor attendance, progress, food contributions	• Understand how to complete basic forms. • Reflect on the information and what can be done to improve sessions
Conduct follow up home visits	• Household visits to support caregivers with new Behaviours	• Purpose of home visit • Use of Home Visit Observation • Checklist form • Problem solving with caregiver
Communication	• Communicate concepts and methods with caregivers and community members in simple terms. • Report regularly to CHC	• Ability to communicate programme progress and results orally

Sub County level staff

Skill	Skills Required	Knowledge required
Community mobilization	• 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)	• 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	• 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	• Motivation/mobilization of village leaders • GMP technical ability • Communication of IYCF practices in simple terms
Situational Analysis	• Nutrition situation • Health services • Market survey • Communicate with MoH, village leaders, health providers, volunteers	• Participatory Rapid Appraisal (PRA) • UNICEF framework of Causes of Malnutrition • Community mobilization skills
PDI	• 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.	• Principles of PDH • Concept of PD • Adult education principles • Facilitation skills • Participatory assessment skills • Breastfeeding • Complementary Feeding • Hygiene

Skill	Skills Required	Knowledge required
	• Train volunteers in 6 key Hearth messages	• Illness Prevention and treatment • Early child stimulation • Meal preparation for families • Nutrition and HIV/AIDS
Menu Preparation	• Development of nutrient dense menus based on PDI. • Train volunteers in menu preparation using household measures	• Use of food tables and menu calculation software • Calorie, protein and Micronutrient requirements • Basic nutrition principles to be able to substitute recipes
Hearth sessions	• 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	• 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	• Assure implementation of Hearth protocol (hygiene, snack, cooking, feeding, training)	• Use of monitoring sheets to analyze effectiveness of process
	• Create monthly plan for implementing Hearth in geographic area	• Budget development • Log frame development
	• Ensure Hearth sessions take place monthly	• Use of Hearth monitoring form
	• Ensure Day 12, 30, 60, 90, 6 months, 12 months, and 24-month follow-up conducted	• Use of Hearth monitoring form and PD Hearth database software
	• Ensure 2-week follow-up home visits are being conducted by volunteers after Hearth sessions	• Use of Home-visit Observation Checklist forms and track the submission of these forms by volunteers

Skill	Skills Required	Knowledge required
	• Motivate village to take responsibility in monitoring growth of children (important for on-going screening of future • PD Hearth participant children)	• Community mobilization skills • Communication skills • Community-based M&E techniques
	• Aggregate information from all Hearths in area	• Reflection and analysis
	• Competent in using PD Hearth database software	• Familiar with MS Excel and internet
	• Analyze information and make appropriate programming decisions	• Decision making/problem solving skills
Communication	• Provide feedback to volunteers on their Hearth sessions, graduation rates, home visits, etc.	• Simplify technical findings and present in lay language
	• Report progress to supervisors and community leaders	• Written and verbal communication skills
	• Communicate to volunteers the next group of identified participant children for PD Hearth • Should identify from monthly GMP results	• List of underweight children from most recent monthly GMP results (monthly screening required)

County Level Nutrition Coordinators

Skill	Activities	Knowledge required
Planning	• Analyze nutrition data. • Identify geographic priority areas for PDH. • Communicate results to National/ County/Partners/ Communities	• Causes and consequences of malnutrition measure, calculate and classify malnutrition
	• Network with NGOs, government ministries, universities, international organizations	• PDH concepts, principles and practices • Role of diverse entities in PDH implementation
	• Motivate participation of cross sectors specialists to contribute to PDH. • Lead multi-sector team in collaborative planning to integrate into PDH programming	• Identification of gaps/key contributing factors and ways to address those.
	• Develop/adapt log frame for PDH	
	• Develop implementation plan for PDH	
	• Develop budget and workplan	
Monitoring	• Ensure all data is collected (no missing data) and entered into PDH database. • Analysis of aggregated data/Interpret findings. • Make appropriate decisions based on data to strengthen Programme. • Support and supervision visits to Hearth projects • Develop and implement evaluation plan for PDH • National level reporting (aggregated data) • Communication with partners	• 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)

Skill	Activities	Knowledge required
Training	• Develop training materials. • Train PD Hearth Supervisors • Supervise and support PD Hearth Supervisors and support Supervisors in training of promoters	• Adult learning methodology • Ability to teach technical material in simple language. • Facilitation skills

National Nutrition Coordinators

Area of Expertise	Skills	Knowledge/ skills required
	• Adult learning methodology • PDH theory and methodology • Demonstrated ability in training others in PDH, Hearth menu calculation tool/software and PDH Database Is deployable	• 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	• 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	• Use of secondary and primary data to identify gaps in nutrition and recommend appropriate interventions. • Ability to advise on other relevant health interventions that would support improvement in community nutritional status
Analytical/ Assessment	• Defines gaps and top priorities for health in country aligned with strategic direction	• Identify situations where PDH methodology would be feasible and beneficial. • Advise when PDH would have limited applicability and not be recommended
	• Use of quantitative /qualitative data	• Identify areas where nutrition is a problem and PDH could be relevant. • Identify contributing factors to low nutritional status that would need to be addressed.

Area of Expertise	Skills	Knowledge/ skills required
		• Use of data to 'advocate' for PDH programmes • Ability to advise on PDH field research or evaluation
	• Selects and defines relevant variables	
	• Applies ethical principles to data collection, storage, use and reporting	• Ability to set up monitoring systems following MoH and PDH standards
	• Knowledge of standardized data collection and management process and computer systems.	
	• Knowledgeable of risks and benefits to communities through assessment and planning	
Programme Planning and Policy Development	• Translates assessment information and data into programmes. • Able to assess feasibility, applicability, risk management for 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	• Uses data to mentor staff in improved programming
Leadership	• Creates shared vision and team learning. • Manages team information, contracts, external agreements. • Manages staff, motivates, conflict resolution, performance monitoring.	• 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
	• 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	• 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	• 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 and1 community member. Find out when the main market day is and keep in mind when planning the agenda.

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.

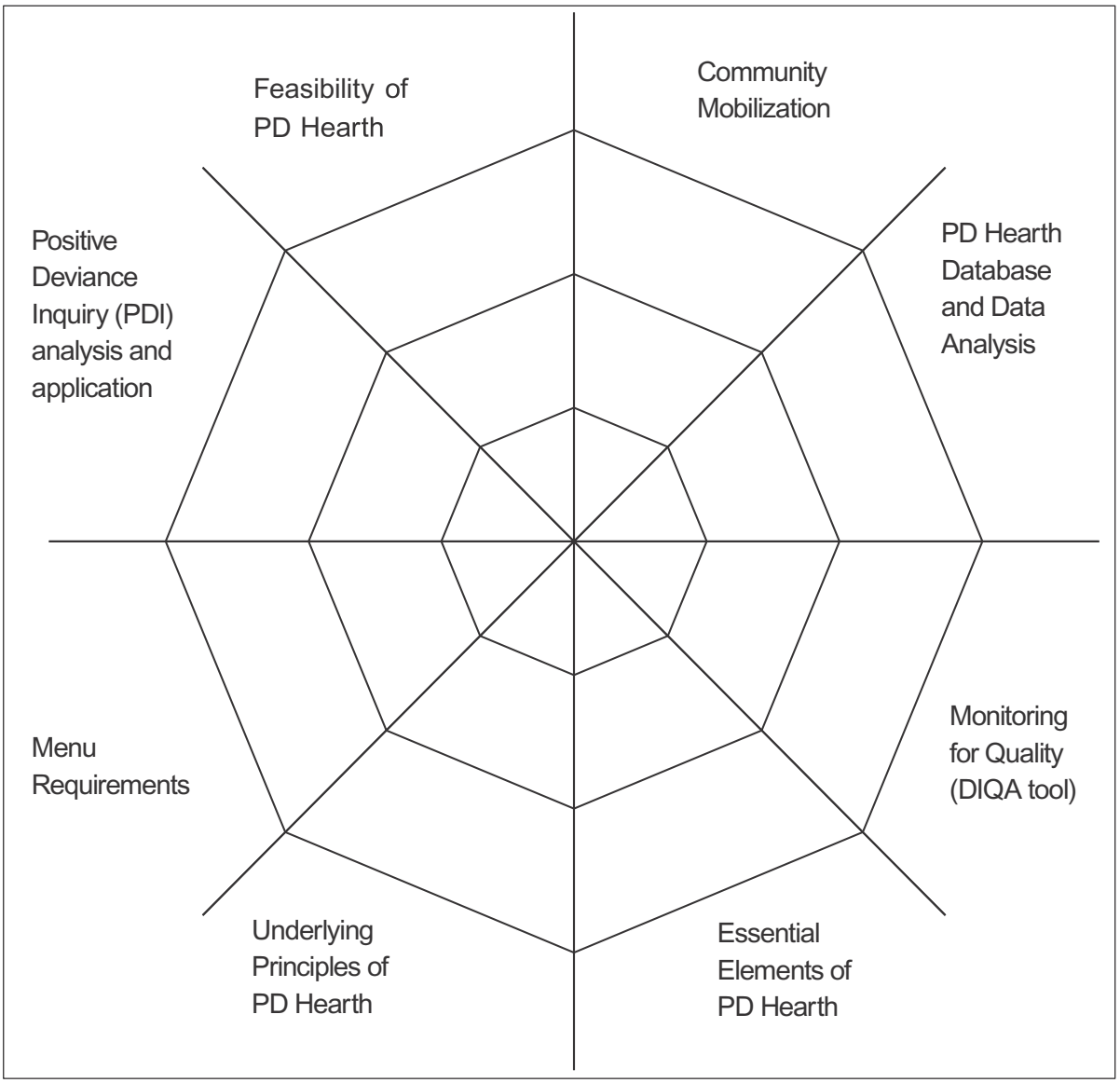
The participants should be drawn from a mix of nutrition officers, child health focal persons, nurses, health records information officers, Community Health Assistants, Public Health Officers, Health Promotion Officers, Clinical officers, or other health workers who will directly be involved in the implementation 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	

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	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 Go: rice, maize, green bananas, potatoes, maize flour, wheat flour. Glow: carrots, pumpkin, tomatoes, dark-green leafy vegetables, mangos, oranges, Avocadoes, watermelon, Pineapple, spinach, cabbages, and pawpaw. Grow: eggs, milk, fish, chicken, green grams, meat, groundnuts, beans, peas, nuts, Kitchen equipment's: cooking pots, Knives, plates, wooden spoon, mortar and pestle, Grater, chopping board, 3 cooking Pots, Dish washing sponge and soap, Serviettes Source fuel Three large stones		
23	Ensure adequate Anthropometric tools (weighing scales & MUAC tapes)	10 weighing scales with	

S/No	DESCRIPTION OF ITEMS	AMOUNTS	COMMENTS
		batteries/ Charger MUAC -1 per participant	
24	Logistics for the field practice • 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.		

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

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) 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:			
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
	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) 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 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:			
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
	20	(STEP 4) PDI Interpretation and Feedback: Determining Positive Deviance and Identifying 6 Key Hearth Messages 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
		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 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 27	Setting up Hearth Sessions: 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:			
9		Devotions	30 min
		Review of Day 8 – Go through outstanding Parking Lot Topics	30 min
	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 Target Evaluation, Workshop Evaluation	40 min 30 min
		Certificate Presentation & Closing Remarks	40 min

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.

<table>
<tr><th></th><th>STEPS</th><th>APPROXIMATE TIME REQUIRED</th><th rowspan="12">Monitor

and

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

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.

10 MIN

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.

Handout 7.1: Community Mobilization (STEP 2)

1. 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.

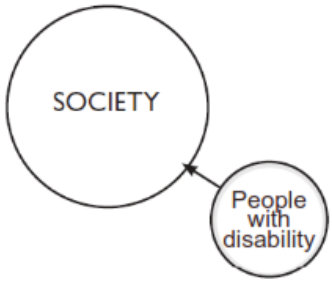
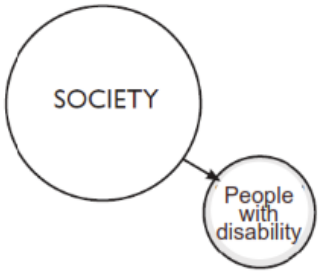
Step 6: Plan and carry out PD inquiries with community members.

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 Hearth sessions and other supporting interventions (food production WASH etc.)

The 3 Approaches to Disability

Evidence also shows that parents of children with intellectual and develop- mental 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**
		
Activities "fix" PWD, who is 'sick', so they can join 'normal' society • 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	Activities 'help' PWD who is 'helpless' and outside 'normal' society • 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	• 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.

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	

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	

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 I 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)	f 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

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

2 0F 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

Handout 10.3: Child Disability Screening Question for PD Hearth

Screening Questions	Concerning Answer	Reason for Concern	Next Step/Referral
1. Observation: Does the child have any physical disabilities? **Note:** 'Physical disability' can include impairment in crawling, walking or having physical deformities.	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.
1. Does your child have any difficulties with the following? I) Children <24 months of age: □ Seeing □ Hearing □ Crawling (for children > 8 months of age) □ Picking up small objects with his/her hand □ No difficulties at all II) Children ≥24 months of age □ Seeing □ Hearing □ Walking □ Picking up small objects with his/her hand □ Understanding you Speaking □ Playing □ Behavioral issues □ 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.	If 'Yes', indicate the child as monitoring register (Handout 14.4), and continue with Question 3. 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.
2. Compared to other children his/her age, does your child have to his/her disability? **Note:** frequently chokes on food or liquids.	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.
3. Compared to other children his/her age, does your child have a poor appetite (does not like to eat)?	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.
4. Does your child eat less than other children his/her age?	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)

Handout 11.1: Seasonal Calendar of foods

DATE OF SURVEY.....COUNTY……...

SUB COUNTY .....WARD……

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

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

DATE OF SURVEY .....COUNTY……..

SUB COUNTY .....WARD……

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)** *(Tick appropriately)*		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.

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

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

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?	
10. 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).	
11.How many times did [CHILD'S NAME] eat yesterday	
12. Did the child eat any other food elsewhere? If yes where?	

HANDOUT
17.1
DAY 4

Sample Guiding Questions for Conducting a PDI

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

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…… **Caregiver's Name ……** **Caregiver's contact……..**	**County……Sub County……** **Ward……...Link Facility……** **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

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?	

HANDOUT
17.2

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?	

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

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

Handout 17.5: Reduced Coping Strategy Index

Child name…… **Caregiver's Name ……** **Caregiver's contact……**	**County……Sub County……** **Ward……..Link Facility……** **Community Unit: ……village name……** **Landmark……**		
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……		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	

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

1. 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

2. 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

3. 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

4. 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)

5. 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

6. Cleaning up

Discuss:

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

7. 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.

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).

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

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, Anmum brand (fortified)	77	3.20	93	22	2.6	2.2		10

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

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

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

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

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

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

References:

1. FAO. (2010). Composition of selected foods from West Africa. FAO, Rome.
2. Platt, B.S. (1962). Tables of representative values of foods commonly used in tropical countries. MRC Special Report Series No. 302. HMSO, London.
3. FAO. (1972). Food composition tables for use in East Asia. FAO, Rome.
4. West CE et al. (1987). Food composition table for energy and eight important nutrients in foods commonly eaten in East Africa. CTA/ECSA, Netherlands.
5. USDA. (2011, May 18). Nutrient data laboratory. Retrieved from: *http://www.nal.usda.gov/fnic/-foodcomp/Search/*
6. Gibson, R. Malawi Food Database.
7. Lukmanji Z., Hertzmark et al. (2008). Tanzania food composition tables. Tanzania Food and Nutrition Center, Dar es Salaam, Tanzania.
8. SGHI. (2014). Sprinkles Standard Formulation Retrieved from: *http://www.sghi.org/about_sprinkles/prod_info. html/*
9. Institute of Nutrition and Food Science. (2013). Food Composition Table for Bangladesh. Dhaka, Bangladesh. *http://www.fao.org/fileadmin/templates/food_composition/documents/FCT_10_2_14_final_version.pdf*
10. Sustainable Micronutrient Interventions to Control Deficiencies and Improve Nutrition Status and General Health in Asia. (2013). SMILING Food Composition Table for Laos. *http://www.fao.org/infoods/infoods/tables-and-databases/asia/en/*
11. Institute of Nutrition, Mahidol University (2014). ASEAN Food Composition Database, Electronic version 1, February 2014, Thailand. http://www.inmu.mahidol.ac.th/aseanfoods/ composition_data.htm
12. FAO/Government of Kenya. 2018. Kenya Food Composition Tables. Nairobi, 254 pg.

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

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 Step1 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.

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 grand-mothers, 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.

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
1. Actively involve the community throughout the process. 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. The higher the exposure and involvement, the greater the impact on community overall nutrition status. Raising the consciousness of the community is empowering.	• 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?
2. Conduct a PDI in every community. A PDI is an opportunity for the community to make discoveries, not just to provide information to the program To ensure community ownership, integrate the PDI into the Hearth sessions. A PDI may need to be done at different seasons. The goal is to identify PD practices, not only PD person.	• 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?
3. Use community health promoters to conduct sessions and follow-up home visits.	• How were Hearth volunteers trained?
4. Use growth monitoring to identify malnourished children and to monitor participants who have graduated. If growth monitoring is not already in place, begin monitoring those who complete Hearth sessions and all children in target group over time. Growth monitoring must include counselling and explanations of a child's growth.	• Is routine growth monitoring present in the link health facility? • Is counselling concluded? • How are children monitored after graduation?

Essential Elements of PD Hearth

Essential PD Hearth project elements	Key questions to consider
5. Prior to sessions, deworm all children and provide immunizations and micronutrients. 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. In endemic areas malaria treatment before hearth sessions may be necessary.	• 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? • We're pre-existing underlying illnesses treated?
6. Design Hearth session menus based on locally available and affordable foods. This is necessary to promote replication in home with limited resources in order to sustain improved nutritional status. Use foods confirmed through the PDI and verify the cost/nutritional content through a market survey.	• Was a market survey completed? • Were PD foods identified? • Were the foods local, available and affordable? • Were there any food taboos or associated?
7. Hearth session menus are nutrient dense to ensure rapid recuperation need to be balanced and nutritious. Menu plus snack must contain require protein, calories and micronutrients to provide 'catch-up' growth. The Hearth meal is 'medicine'. The extra meal is a supplement, not a meal substitute. To sustain the rehabilitation families, learn that meals need to be balanced and nutritious.	• 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?
8. Ensure that caregivers bring a daily contribution of food or materials to Hearth. This reinforces the fact that families can afford to feed nutritious food. The contributions make implementation possible without outside material support. Families providing resources ensures that the programme is non-paternalistic	• 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
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.	• 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?
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.	• Were PD Hearth sessions conducted for 10-12 days? • What were attendance rates? • Was time spent reflecting with caregivers about changes in child?
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.	• 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?
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.	• What happened if a child became sick during the session(s)? • Under what circumstances was a child referred to the health centre?
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.	• 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?
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.	• 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?

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?

Follow-up Cases

DAY 8

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.

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 Name .....Sub County Name .....Ward Name. .....

Community Unit Name .....Village Name……

Name of Hearth. .....…

Hearth Session Dates (dd/mm/yyyy): From .....To. .....

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		

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

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 County .....Ward.....Link Facility .....

Community Unit ..... Village…… Name of Hearth. .....

Hearth Session Dates (dd/mm/yyyy): From .....To .....

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)																							
1			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 fn '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.

Handout 29.4: Hearth Register and Monitoring Form

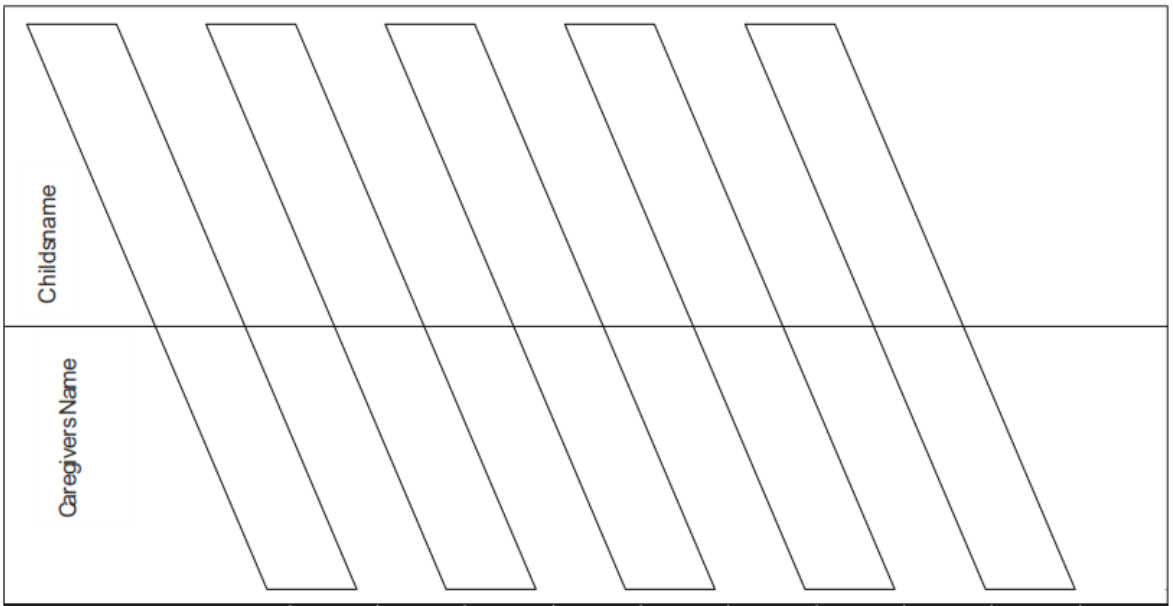
County.....Sub County.....

Ward ..... Facility .....

Community Unit ..... Hearth.....

Hearth Session Dates (dd/mm/yyyy): From .....To. .....

Number of Children Participating. .....Community Health Volunteer……



CHILD	1	2	3	4	5	6	7	8	9	10
Child's Sex (M/F)										
Date of Birth (dd/mm/yyyy)										

Hearth Register and Monitoring Form

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

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 County .....Ward.....

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			

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).

- 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 Supple- mentation, 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., ≥ 200g at Day 12; ≥ 400g 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.

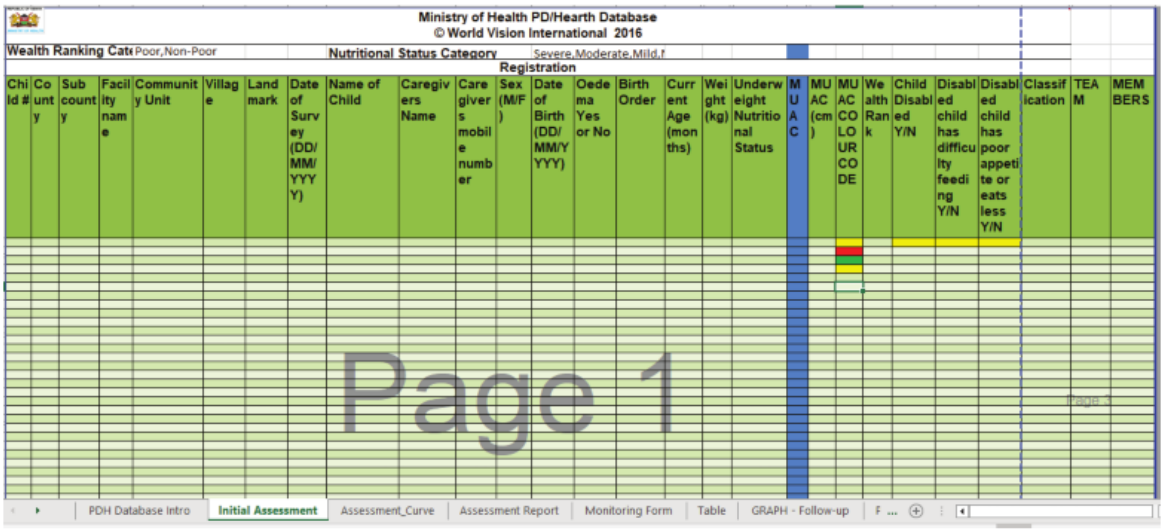


Figure 29.1: A snapshot of the excel database

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.

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	• 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 NB: Mothers are encouraged to procure MNPs from shops	• 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.	•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	• 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	•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.	• 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	• 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	• 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	• 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	• 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	A resource manual for Agri-nutrition in Kenya (2017) .Agri nutrition dialogue cards . *https://www.fh.org/2016/03/14/build-your-*own-keyhole-garden/ . Agri-nutrition Implementation strategy
Ministry of Agriculture	Bio-fortification	• 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	• 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	A resource manual for Agri-nutrition in Kenya (2017) . Agri nutrition dialogue cards . Agri nutrition Implementation strategy
		(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	• 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	• 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	. 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	• 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	• 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	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		

PH/Hearth+: Scale up and integration of PD Hearth with both Nutrition specific and Nutrition Sensitive Interventions

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 P D 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)

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					

HANDOUT
33.1

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

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					

HANDOUT
33.1

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

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					

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

. _____

_____

_____

Workshop Evaluation

		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!

List of Contributors

1 Veronica Kirogo	MOH- Head of Nutrition
2 Agnes Mwendia	MOH-Nyeri County
3 Alice Wanjiru	MOH-Division of Nutrition Intern
4 Ann Mugo	MOH-Nairobi City County Government
5 Ascah Nyabuti	MOH-Division of Nutrition Intern
6 Callen Kerubo	MOH-Vihiga County
7 Caroline Chiedo	World Food Programme
8 Caroline Kathiari	MOH-Division of Nutrition
9 Caroline Mugo	Concern Worlwide
10 Caroline Owange	MOH-Nairobi City County Government
11 Carolyne Odette	MOH-Migori County
12 Carren Akinyi Nyada	MOH-Kakamega County
13 Daniel Muhinja	Consultant
14 Dennis Matendechere	World Food Programme
15 Dennis Mbae	MoH-Tharaka Nithi County
16 Dolfine Anyango Odongo	MOH-Homabay County
17 Dr Betty Samburu	MOH-Division of Nutrition
18 Elizabeth Mutua	Ministry of Agriculture and Livestock Development
19 Emmanuel Mwenda	MOH- Division of Nutrition
20 Esther Nona	MOH- Division of Nutrition Intern
21 Evelina Ndilu	Community Connect for Communities
22 Florence Amakobe	MOH- Kakamega County
23 Florence Wanjiru Mugo	MOH- Division of Nutrition
24 Grace Gichohi	MOH- Division of Nutrition
25 Hellen Ringera	MOH-Meru County

26 Hillary Chebon Chelanga	MOH-Division of Community Health
27 Jackline Gatimu	World Food Programme
28 Jackline Nyaigero	MOH-Taita Taveta County
29 James Gacheru	GAIN
30 Jane Limang'ura	MOH-West Pokot County
31 Jessica Mbochi	MOH-Nairobi City County Government
32 John Mwai	MOH- Division of Nutrition
33 Joyce Owigar	World Food Programme
34 Julia Rotich	MOH- Division of Nutrition
35 Leila Akinyi	MOH- Division of Nutrition
36 Laura Kiige	UNICEF
37 Lilian Kaindi	Action Against Hunger
38 Lucy Kinyua	MOH- Division of Nutrition
39 Lucy Waithaka	Hellen Keller International
40 Lydia Kimani	MOH-Transzoia County
41 Mambo Mohammed	MOH-Nairobi City County Government
42 Margaret Kerubo Oyugi	MOH-Kakamega County
43 Mary Kimani	Action Against Hunger
44 Mary Kiringa	MOH-Embu County
45 Maryline Obenga	Concern Worldwide
46 Migwi Paul M.	MOH-Nyandarua County
47 Monica Kirugu	MOH –Embu County
48 Monicah Thenya Kuria	MOH-Kirinyaga County
49 Nuria Ibrahim	MOH-Wajir County
50 Nyawa Benzadze	MOH-Kilifi County

51 Onguso Samuel	MOH-Kisii County
52 Phoebe Mwangangi	MOH-Laikipia County
53 Priscilla Ngetich	MOH-Elgeyo Marakwet
54 Rachael Wanjugu	MOH-Kiambu County
55 Rachel Kahindi	MOH-Kwale County
56 Rael Wanyona Mwando	MOH-Kisumu County
57 Rodgers Onyango	Concern Worldwide
58 Rosa Gathoni	World Food Programme
59 Salome Osita	MOH- Division of Nutrition
60 Samuel Murage	MOH- Division of Nutrition
61 Stephen Omondi	Community Connect for Communities
62 Tabitha Waweru	MOH-Division of Community Health
63 Yussuf Adow Ibrahim	MOH -Wajir County
64 Zachary Muriuki	MOH-Universal Health Care Secretariat

REPUBLIC OF KENYA

MINISTRY OF HEALTH

WFP World Food Programme

World Vision