POSITIVE DEVIANCE/HEARTH (PDH) APPROACH FOR STUNTING REDUCTION

Positive Deviance/Hearth is a social and behaviour change (SBC) and community mobilization strategy adopted by the DFID ASTUTE project for rehabilitating malnourished children both in the community and in their own homes.[1] "Positive deviants" are parents or other caregivers who are as poverty-stricken as their neighbours, but who have well-nourished children. Positive deviants are able to raise well-nourished children because they practise uncommon but healthy behaviours related to feeding, hygiene, and health seeking. In Tanzania, trained community health workers (CHWs) share the uncommon behaviours positive deviants practise through 12 days of practical sessions for parents of malnourished children, referred to as **"hearth sessions."** During this time, locally accessible and affordable nutrient-dense food is prepared, cooked, and served by mothers being supervised by CHWs to malnourished children in the group. Additionally, parents try the other behaviours positive deviant parents practise, including practises related to hygiene, sanitation, and early child development (ECD).

Children qualify for the program based on low weight for age and wasting, with the initial assessment of nutritional status carried out at the local health facility using weight-for-age and mid-upper arm circumference measurements as screening indicators. The strategy targets children 6-36 months of age who are mildly, moderately, and severely underweight. During the PDH program, children are weighed on days 1 and 12, and following the program at 30th and 90th days and at 6 months and 12 months. Weighings are frequent to demonstrate children's progress toward becoming well-nourished. Caregivers' daily attendance is tracked during hearth sessions. Subsequently, CHWs follow up with each participating child and caregiver in their home and record how the child is doing and whether caregivers are practicing the behaviours promoted during hearth sessions. PDH has enabled hundreds of communities to reduce current levels of childhood malnutrition and has the potential to prevent malnutrition years after the program's completion.[2] In addition to helping young children gain adequate weight, children also become more active, joyful, and playful and demonstrate an increased appetite.

LESSONS LEARNT AND RECOMMENDATIONS FOR IMPLEMENTING PDH IN TANZANIA

1. TRAINING

ASTUTE first piloted PDH in four local government areas with malnutrition >30%. PDH was then scaled up to all five lake zone regions where ASTUTE is operating. Figure 1 provides a schematic of how PDH works.

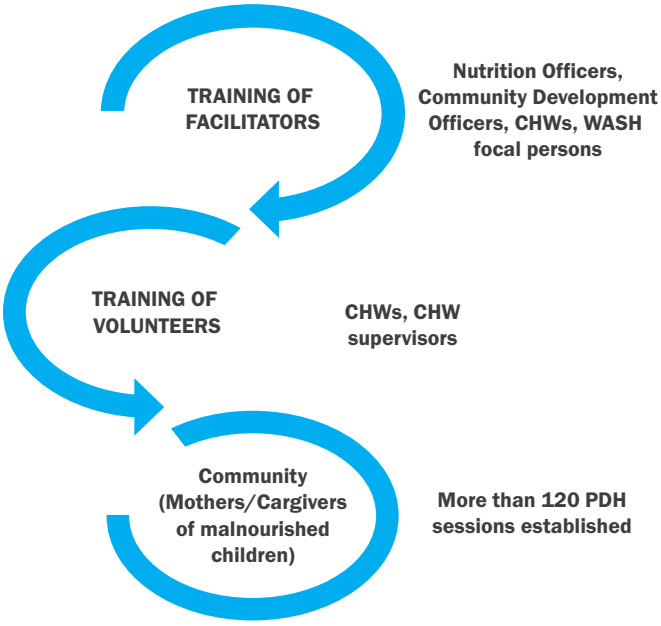

Figure 1. Cascading model from council to community level.

2. PLANNING AND COMMUNITY MOBILISATION

- Before launching PDH at the community level, first ensure that criteria for beginning the PDH program are met. These criteria are: 30% prevalence of moderate and severe malnutrition (or higher), homes are located a short distance from one another, community commitment, availability of nutritious foods (which caregivers contribute), and availability of health facilities.
- Fully involve ward development committees and village leaders to ensure they play a lead role in planning and overseeing all PDH activities.

1 https://www.k4health.org/toolkits/pc-nutrition/positive-deviance-hearth-nutrition-model
2 https://journals.sagepub.com/doi/pdf/10.1177/15648265020234S204

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3. NUTRITION ASSESSMENT AND SITUATIONAL ANALYSIS

- Liaise with health facilities within the ward to get a sense of which villages have the highest level of moderate and severe acute malnutrition, based on the health facilities' routine nutrition assessments during growth monitoring activities.
- Involve health facility workers in weighing children and recording their weights during home visits.
- Conduct focus group discussions, market survey, seasonal calendar, transect walks, community mapping, and Positive Deviance Inquiry (PDIs).[3]
  - Use community members and staff in every community to conduct PDIs.
  - PDIs should be conducted in at least two villages which meet PDH criteria.
  - There should be 4-6 PDIs with positive deviants and two PDIs with negative deviants.

4. MENU PREPARATION AND HEARTH SESSIONS

- Design optimal hearth menus based on locally available and affordable foods. Affordability of foods is verified through the PDI.
- Hearth sessions should be limited to 10-15 children; more than this number makes it difficult to conduct effective hearth sessions.
- Record attendance and the percent of children who graduate.
- Child's weight must be classified as healthy or mildly underweight, regardless of weight gain. If the child does not meet other criteria, they must repeat the hearth for another 12 days.
- Ensure that caregivers bring a daily contribution of food and/or materials to the hearth sessions; this is a must!
- Make certain that caregivers are present for all 12 days of hearth and are actively involved in each session; also a must!
- Ensure caregivers "teach back" what they have learnt at each hearth session so that the CHW is certain each caregiver understands the behaviour he or she must practise at home.

5. FOLLOW-UP VISITS, MONITORING AND EVALUATION

- CHWs conduct follow-up visits at home every 2–3 days for two weeks after the Hearth session.
- Mtoto Mwerevu uses the home visit strategy "negotiating for behaviour change" to conduct visits and follows the steps outlined in World Vision's PDH manuals.
- Check the impact by measuring weight gain at 12 days, 30 days, three months, six months, and one year after participating in hearth.

6. COMMUNICATION

- Situational analyses, weighing, and Hearth session reports should be available to Ward Executive Officers and Village Executive Officers for their input and records.
- Communities should be informed of anthropometric and other health data, PDH attendance, increases in children's weights, and graduation rates for those attending PDH sessions.

Challenges encountered during Hearth sessions	Proposed solution
Unclear criteria for wealth ranking and subsequent misclassification of PDH households.	Community leaders should help set criteria during wealth ranking sessions and identification of PDH households.
Most government health facilities use hanging scales which are subject to great error during weighing of children.	Use digital scales,
Drop-outs and defaulters from the hearth sessions.	Involve local leaders in all steps of PDH implementation and engage individuals with influence on childcare and feeding, particularly grandmothers. Encourage those who stay in the group to informally share messages with those who have dropped out.
Inaccessibility of certain foods (e.g., protein sources, fruits, etc.).	Advocate for homestead gardens among community members.Ensure menus are diverse and according to seasonal availability of foods.
Few children are graduating from hearth sessions.	Prior to Hearth sessions, deworm all children, update immunisations, and provide needed micronutrients. Ensure criteria for starting PDH programs are met.

3 These techniques are used for the situation analysis of the community and are useful in identifying positive and negative behaviours that affect the health and nutrition status of children