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# Local and indigenous foods as an essential contribution to children's nutrition – FAO's experience

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FAO, Rome

World Breastfeeding Conference

New Delhi, India, 6-9 December 2012



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# Overview

- What is the problem?
- Why is FAO concerned?
- How are we tackling it?
- Lessons



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# Malawi



# Cambodia





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# High burden of chronic undernutrition

- Cambodia – 40% DHS 2010; Malawi – 46%, DHS 2012
- Window of opportunity during the first 2 years of life:
  - exclusive BF for the first 6 months
  - continued BF to 2 years
  - **adequate, safe and appropriate complementary feeding from 6 to 23 months**
- Optimal BF and CF practices together are key interventions to enable children to reach their full growth potential and prevent irreversible stunting, and acute undernutrition



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# Gaps in Complementary Feeding

- Early or late introduction of CF
- Thin, cereal based porridge is often the major source of energy & protein
- Consumption of legumes, vegetables and fruit is low
- Animal source foods are seldom fed
- Consumption of oil rich foods is low
- Meal frequency is inadequate, especially during planting season (women's workload)
- Hygiene practices and food safety are poor
- Lack of awareness, knowledge and skills among service providers, mothers, grandmothers and fathers



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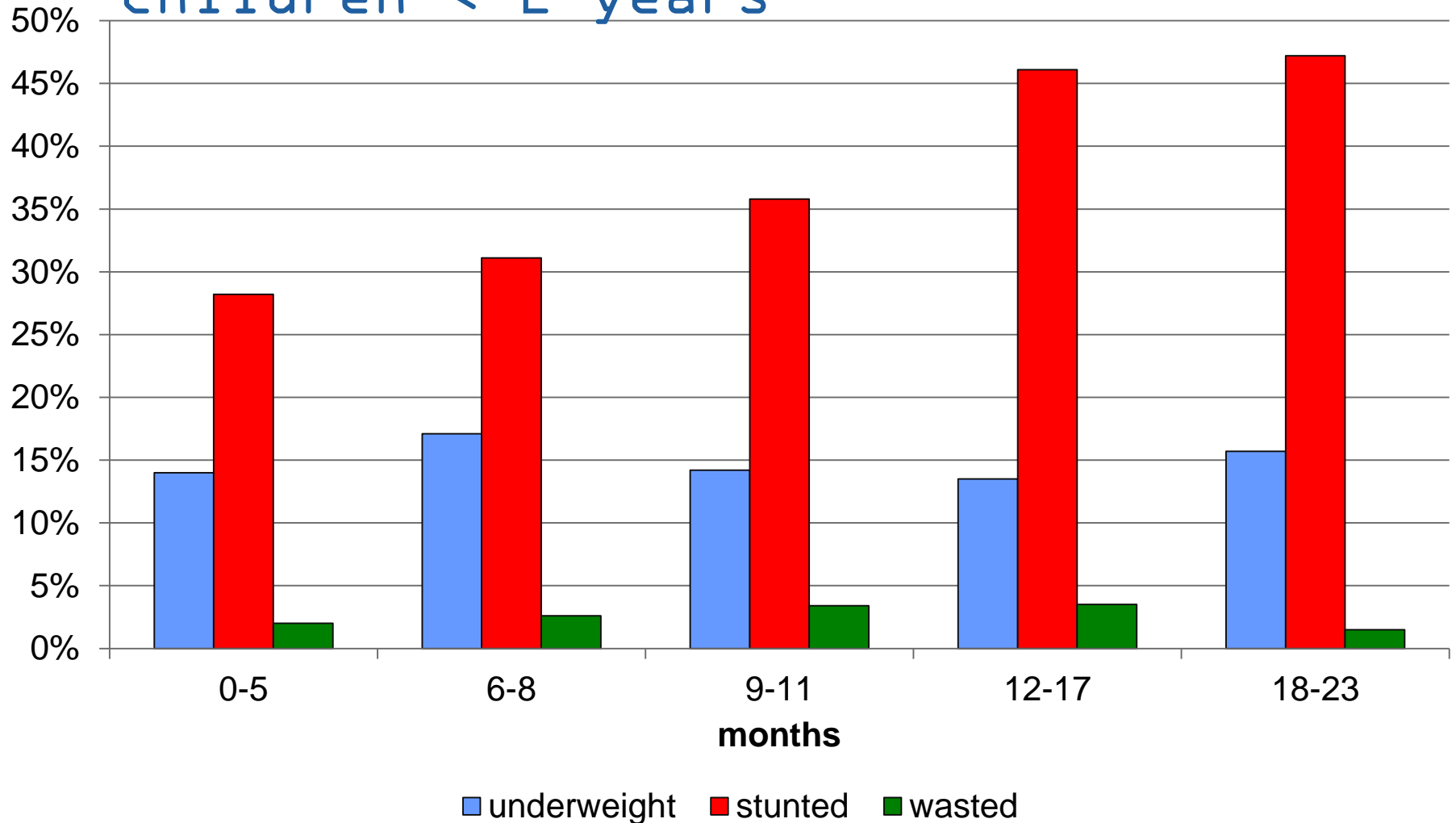


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# Malawi - Nutritional status of children < 2 years





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# WHY is FAO concerned?

- No single best approach to tackling malnutrition, but ...  
.....an exclusive focus on supplements can result in a neglect of agriculture and dietary diversification as key pillars for improved family and child nutrition
- Promoting nutrient-rich foods and home based diets can be effective in improving children's nutrition (Dewey, et al 2008)
- Teaching families to diversify food production and make better use of locally available foods has greater potential of being sustained than the provision of micronutrients or food supplements alone
- Feeding a healthy varied diet from childhood can be protective against overweight and obesity



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# FAO's approach: linking food security with nutrition education

- 1) Diversifying food supply and ensuring access:
  - Not only staples, but also ....legumes, veg, fruits
  - small animal raising, aquaculture
  - improved storage & food processing, fuel efficient stoves
  - water resources
- 2) Gender and women's empowerment (women's workload)
- 3) **Community food & nutrition education and counseling (knowing how to do things, self-efficacy)**
- 4) Right to adequate food and nutrition
- 5) Advocacy for policy/decision makers in agriculture, health, education, gender to give food and local diets greater priority



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# Steps in Program Development

- 1. Trials of improved Practices (TIPs)** – formative research method to test acceptability and feasibility of improved CF practices and recipes (by season)
- 2. Capacity development**  
Preparation of training and counseling materials, intersectoral training of agriculture & health extension staff at all levels
- 3. Roll-out**  
Scaling up of intensive nutrition education through facilitated group discussions and community-based cooking demonstrations
- 4. Research - building the evidence**  
Assess effectiveness of the intervention and measure impact on diets and child growth – funded by Germany



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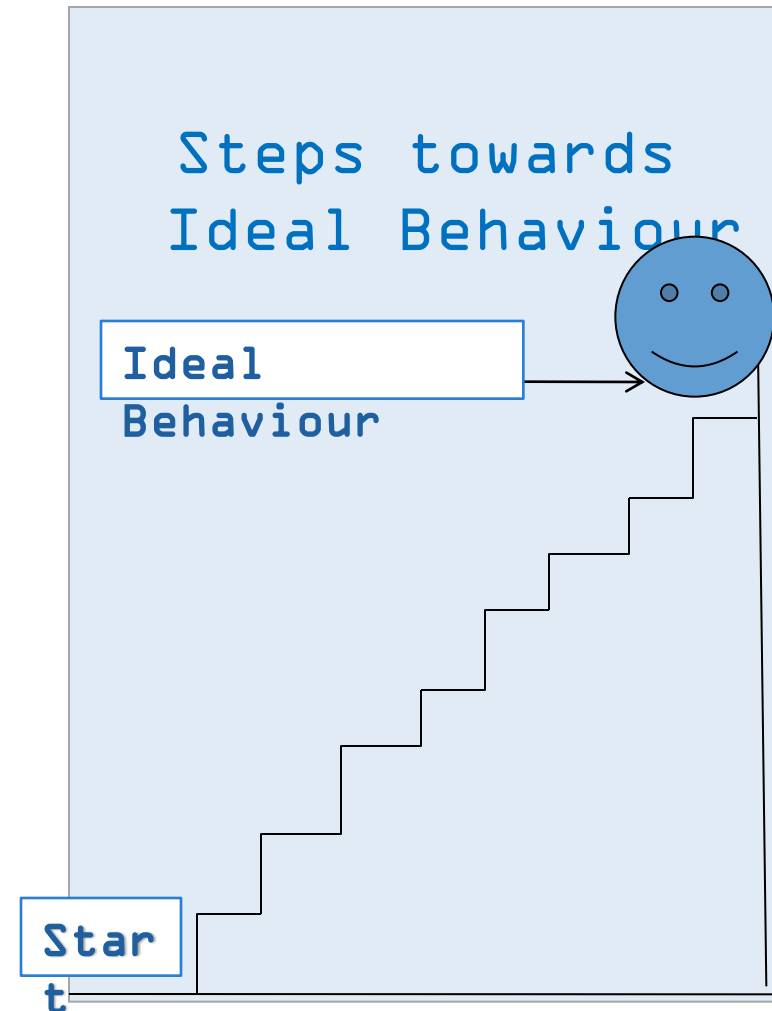
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# Why Use Trials of Improved Practices?

- **Past experiences**
  - Giving ideal messages
  - Little participation by caregivers
- **TIPs Approach**
  - Try out improved practices in real home situation
    1. Establish what is feasible and practical to caregiver
    2. Identify motivating factors and constraints to behaviour change
    3. Set interim targets towards ideal behaviour





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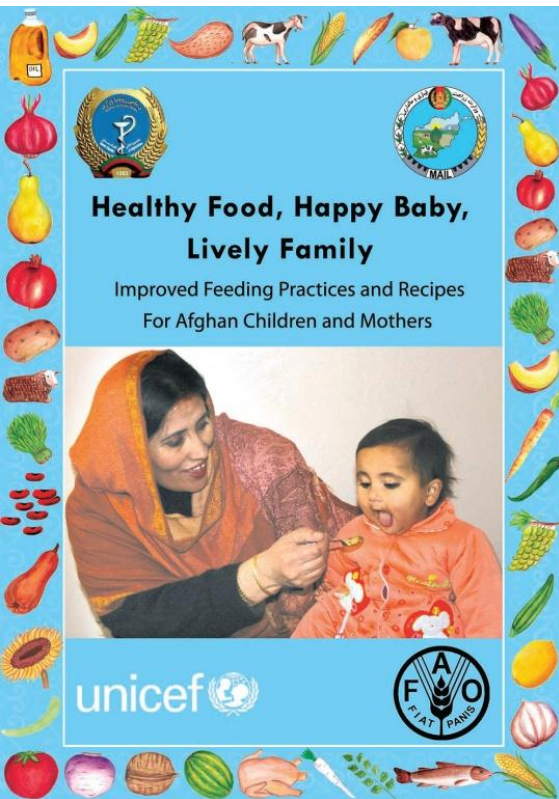


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# TIPs outputs – local IEC materials



Afghanistan



Cambodia



Zambia



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# KUPITITSA PATSOGOLO KADYETSEDWE KOYENELA KA ANA

## PROMOTING IMPROVED INFANT AND YOUNG CHILD FEEDING

### FACILITATOR'S BOOK

English Version



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# Cambodia: some locally available foods





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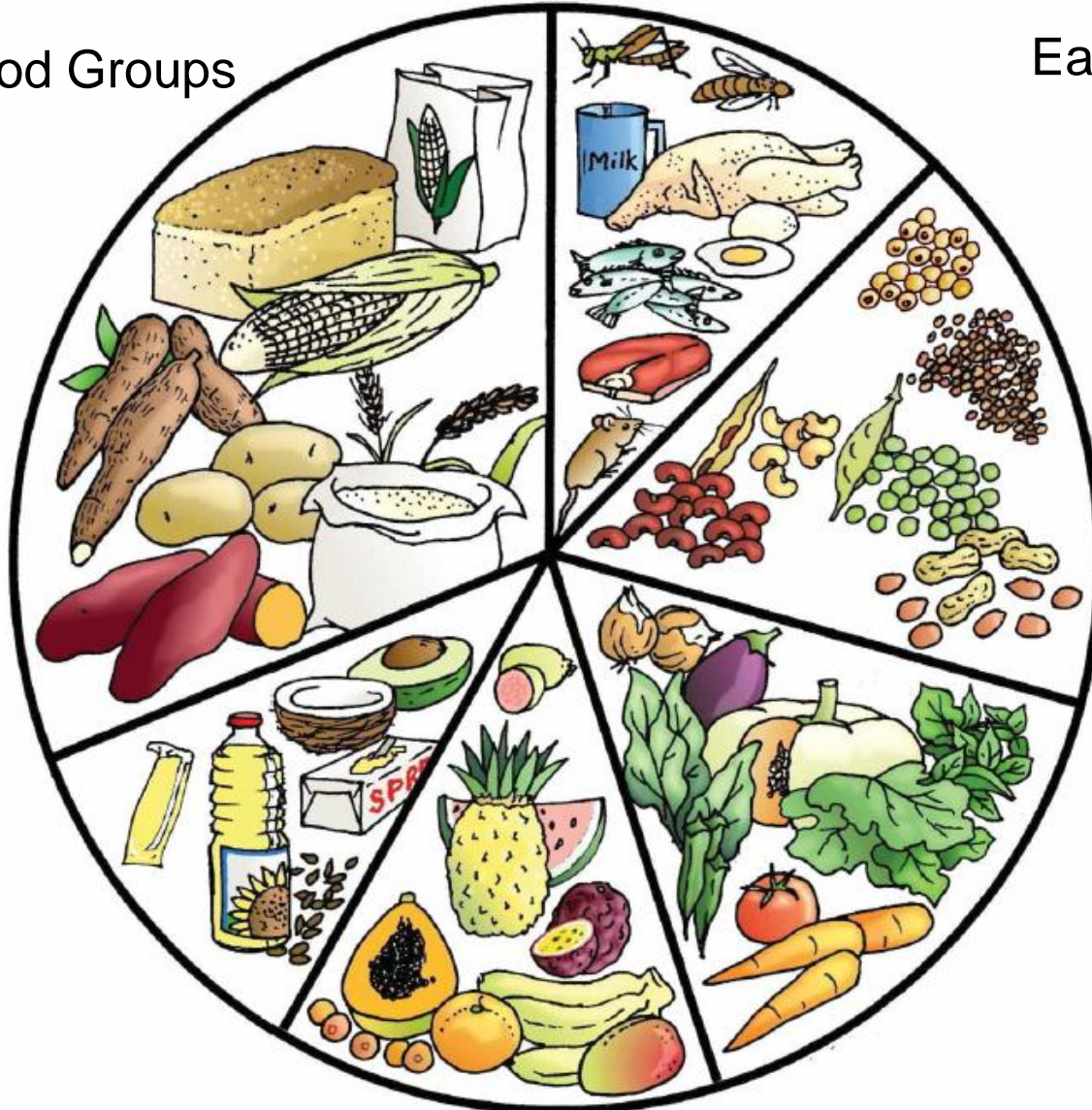


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# Malawi 6 Food Groups



Eat a variety of food every day!



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## BEFORE

(plain rice porridge with salt)



## AFTER

(including rice/taro + veg + oil + meat or fish or groundnuts or egg)



**Cambodia, Preah Vihear and Otdar Meanchey districts**



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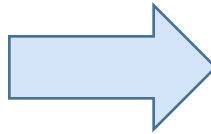
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# Malawi: improved porridges



Plain, watery porridge





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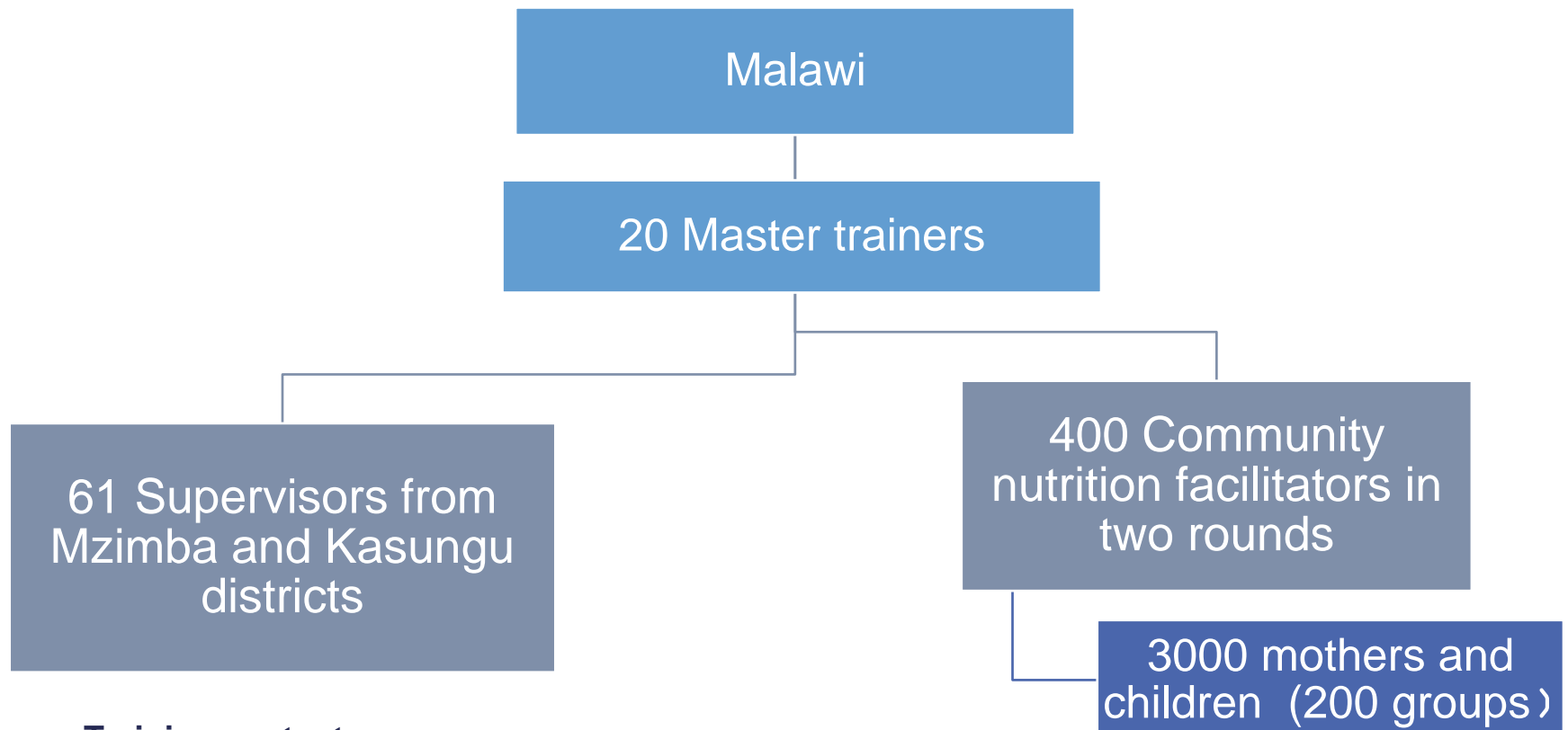


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## Training Cascade to develop capacity in nutrition education/counseling - 2012 (1/3)



### Training content:

group facilitation and discussion of key messages on improved CF practices, joint problem solving



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## Wider implementation

1. Facilitated group discussions for 5 months
2. Community-based cooking demonstrations
3. Two community nutrition facilitators per village (1 lead farmer, 1 community health volunteer)
4. 15 mothers with children from 6-18 months
5. Mothers learn how to prepare local seasonally available foods to improve children's meals
6. 10 sessions (one session every 2 weeks, with special sessions with grandmothers and fathers)



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# Facilitated Group Discussions



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# Participatory cooking sessions



**Cambodia**



**Malawi, Mzimba and Kasungu districts**



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# Tasting of Improved CF



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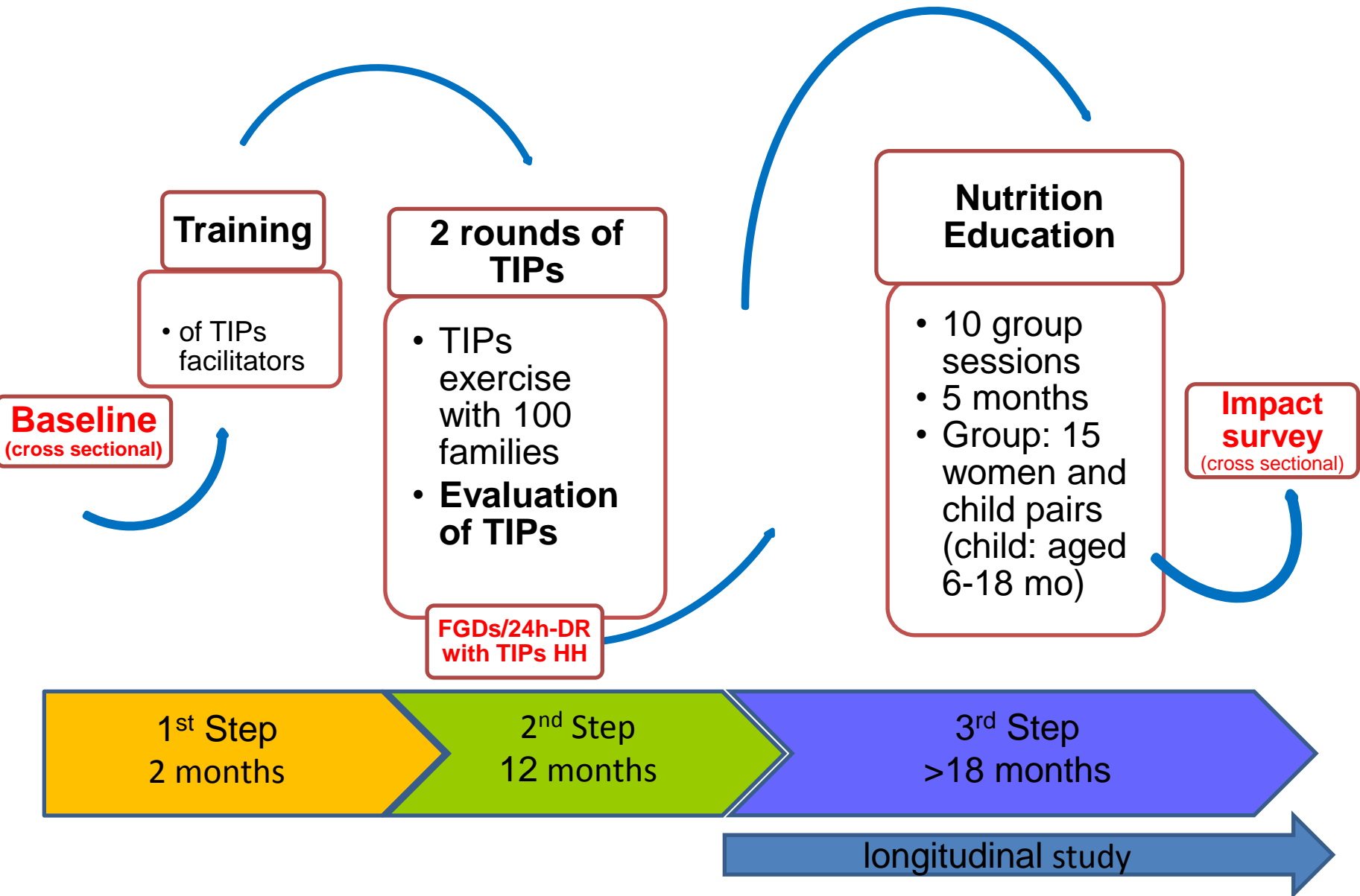


## Building the evidence base

- Research: “Improving the dietary intakes and nutritional status of infants and young children through improved food security and complementary feeding counselling” (IMCF)
- Hypothesis: *Food security interventions when combined with nutrition education have an impact on reduction of stunting*
- Restricted randomized controlled trial

Control	Intervention
Food security	Food Security & Nut. Education

# FAO food security projects & IMCF research in Malawi





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# Observations from TIPs

- Interest by mothers and high acceptability
- In all settings, families accepted giving thicker porridge
- Diversity of the diet improved
  - Increased from 1-2 to 10 food items in Cambodia (70 percent of HHs)
  - In Malawi most mothers are able to add a vegetable, legume and oil to the staple food.
  - Animal source foods (eggs, fish) can be added 2-3 times per week
- In Malawi, the proportion of children with high dietary diversity scores significantly increased from 10% at baseline to 44% ( $P < 0.001$ ) after counseling.
- Intake of thin plain porridge significantly decreased from 42% to 8% ( $P < 0.001$ ).



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# Observations from TIPs

- In Cambodia and Malawi some mothers applied the concepts taught and developed their own recipes to provide more diversity for their children
- Families felt empowered to feed their children and themselves using locally available food sources (a sustainable approach)
- Communities learnt with and from each other, through sharing of resources and skills suggesting a good potential for peer education
- Households are willing to continue when they see the benefits (children are more active, have more appetite, cry less, are sick less often...)



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# Challenges

- Availability and affordability of food, particularly of animal source foods
- Mother's time constraints, especially during periods of high workload (planting season)
- Meeting the iron and zinc requirements (for children aged 6-11 months) and iron requirements for all children  $\leq 24$  months is a challenge where animal source foods are scarce
- Upscaling - sufficient numbers of trained government staff at community level, able to guide and support families



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# Lessons

- It is feasible for families to improve child feeding practices through local family foods
- Substantial improvements in children's nutrient intakes are possible (energy, protein, vitamins A and C, zinc and some iron).
- Food and nutrition education and dietary counseling are vital as part of a comprehensive approach
- In resource poor environments, food security needs to be stepped up
- Iron fortification and supplements, however, blanket supplements may not be warranted
- Involve extension workers from all sectors; need for training in basic nutrition and counselling skills
- Make use of existing delivery platforms, local networks and community organizations to spread knowledge and skills



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# Contacts

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**YouTube video: Healthy Food, Healthy Child**

<http://www.fao.org/ag/humannutrition/nutritioneducation/70106/en/>



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# Thank you!





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# +21

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NUTRITION**  
better lives

# 2013

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- A three-day high level political event jointly organized by FAO and WHO in collaboration with UN and other partners
- The first global intergovernmental conference devoted solely to addressing the world nutrition problems in the 21<sup>st</sup> century

### Why an ICN+21?

- Progress in reducing hunger and malnutrition has been unacceptably slow
- Need to raise nutrition higher up the development agenda, with greater political and policy coherence, alignment, coordination and international cooperation
- Strengthen governance for nutrition by supporting other initiatives (SUN, 1000 days, REACH, etc.)

Visit the ICN+21 website at: [www.fao.org/ICN21](http://www.fao.org/ICN21)