

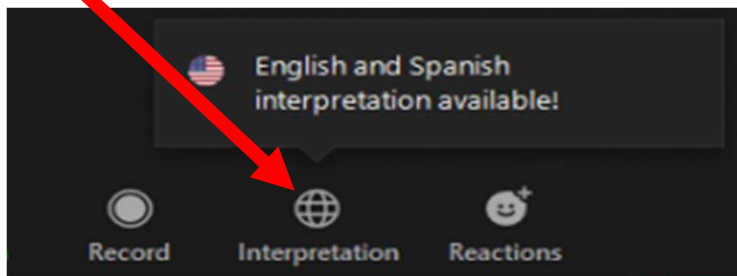
The Cost of the Diet (CotD)

Global Orientation on How to Use it

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يمكن الاستفادة من الترجمة الفورية عن طريق النقر فوق رمز الكرة الأرضية أسفل الشاشة.



“The Cost of the Diet (CotD): Global Orientation on How to Use it”

November 16th 2023, 2:00pm UK time (3:00pm GMT+1/CET/Geneva Time)

Webinar Working Group



Supporting Donors



Note: *This webinar is made possible by the generous support of all of our donors, however, the contents are the responsibility of the GNC Technical Alliance and the individual presenters and do not necessarily reflect the views of these donors.*

Objectives:

1. Orient the participants on the Cost of the Diet (CotD) tool and methodology, access, potential uses, opportunities.
2. Answer to some of the Frequently Asked Questions on the CotD (including resources required and time)
3. Present the linkages to the Fill the Nutrient Gap (FNG), differences and similarities

Webinar Agenda

SESSION TITLE	TIME	PRESENTERS
Introduction	02:00-02:05	Marina Tripaldi (SC)
Overview of the Cost of The Diet (CotD) software and methodology, potential uses, and case studies Including poll questions	02:05-02:50 (3 min. Each)	Lilly Schofield & Barriquault, Aurelien SAVE THE CHILDREN (SC)
Linkages between CotD and Fill the Nutrient Gap (FNG), differences and similarities	02:50-03:05	Zebiba AYENEW WORLD FOOD PROGRAM (WFP)
Q&A	03:05-03:25	Marina Tripaldi (SC) & Diane Moyer (CONCERN)
Closing	03:25-03:30	Diane Moyer (CONCERN)

Today's Facilitators and Presenters



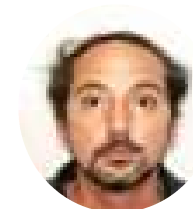
Marina Tripaldi
Senior Cash & Voucher Advisor
Save The Children



Diane Moyer
Nutrition Advisor
Concern



Lilly Schofield
Senior Evidence and Learning Advisor
Save the Children UK



Name: Aurelien Barriquault
Regional Lead for Health, Nutrition and WASH –
West and Central Africa region
Save the Children International



Zebiba Ayenew
Food Systems & Nutrition Analyst
UN World Food Programme, Rome

Overview of the Cost of The Diet (CotD) software and methodology, potential uses, and case studies

**Lilly Schofield & Aurelien Barriquault
SAVE THE CHILDREN (SC)**

Poll question 1

- What is your previous experience with Cost of the Diet?
 - No previous experience/first time to hear about it
 - Limited (Have heard of it)
 - Some (Have read a CotD report/results brief)
 - Substantial (Have been involved in a CotD assessment)
 - Extensive (Have led a CotD/Worked with the software previously)

Where did Cost of the Diet come from?

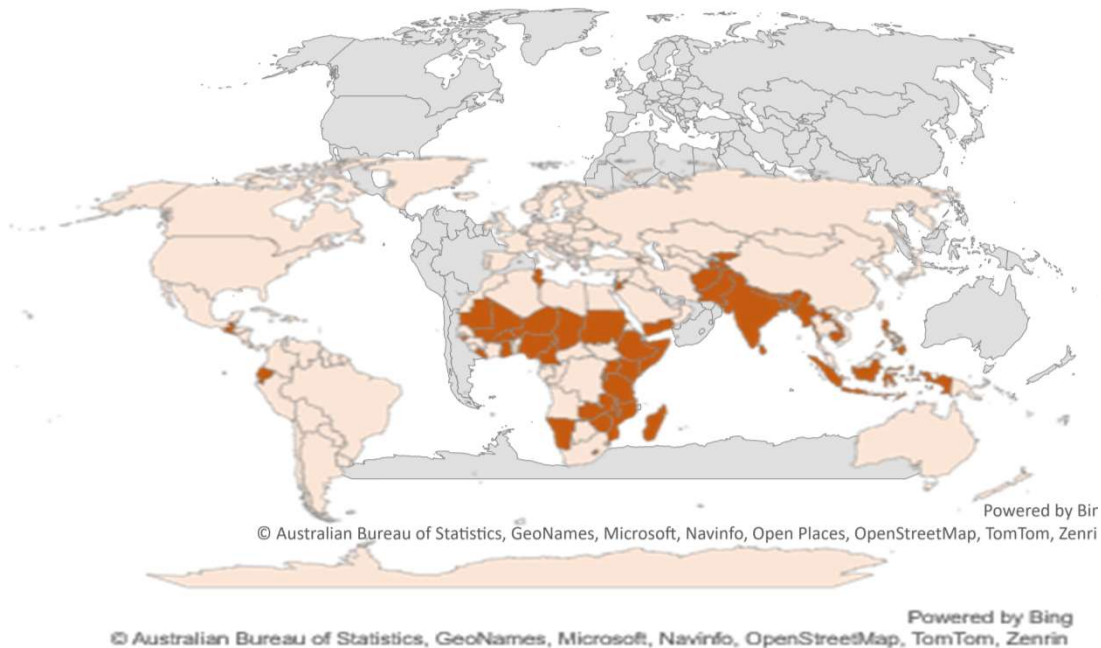


Can the poorest and most marginalized afford a nutritious diet?

What is Cost of the Diet?

- Innovative method and software
- Estimates at the lowest cost, the quantity and combination of locally available foods that are needed to provide a typical family/individual with their needs for energy and their recommended intakes of protein, fat and micronutrients





- Used in over 47 countries by NGOs, UN agencies, Gov't and Academics
- Method published in *BMC Nutrition*

Deptford et al. *BMC Nutrition* (2017) 3:26
DOI 10.1186/s40795-017-0136-4

BMC Nutrition

SOFTWARE

Open Access

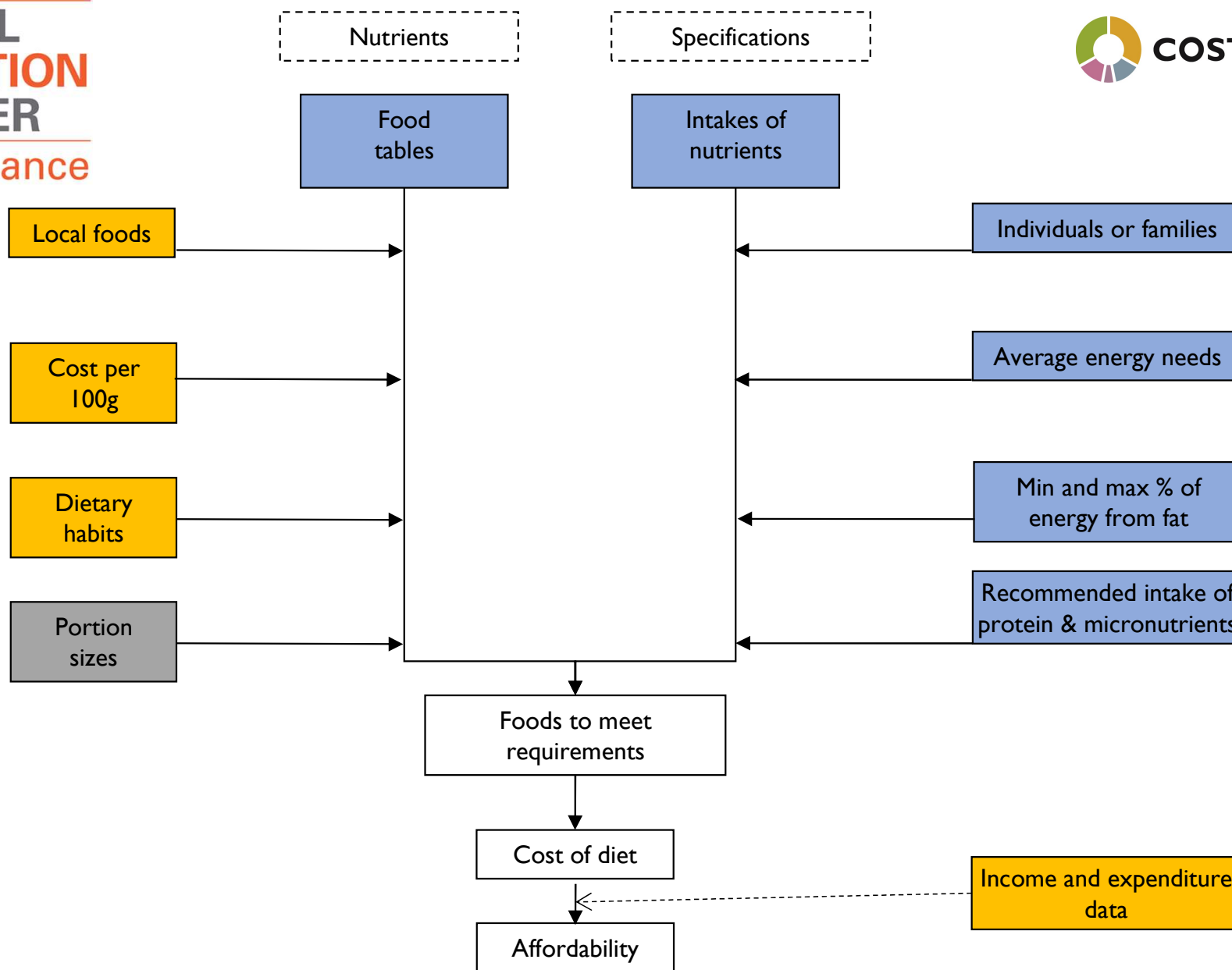
Cost of the Diet: a method and software to calculate the lowest cost of meeting recommended intakes of energy and nutrients from local foods



Amy Deptford¹, Tommy Allieri², Rachel Childs¹, Claudia Daru¹, Elaine Ferguson³, Jennie Hilton¹, Paul Parham⁴, Abigail Perry¹, Alex Rees¹, James Seddon⁵ and Andrew Hall^{1*}

Abstract

Background: When food is available, the main obstacle to access is usually economic: people may not be able to afford a nutritious diet, even if they know what foods to eat. The Cost of the Diet method and software was developed to apply linear programming to better understand the extent to which poverty may affect people's ability to meet their nutritional specifications. This paper describes the principles of the method; the mathematics underlying the linear programming; the parameters and assumptions on which the calculations are based; and then



Data Collection Steps (Primary)

1. Choose livelihood zone/assessment area
2. Identify foods available, both local and imported
3. Identify wild foods consumed
4. Visit a representative sample of local markets to collect data on the cost of foods
5. Collect data on the frequency with which foods are eaten by people in different wealth groups
6. Specify a typical family or individuals

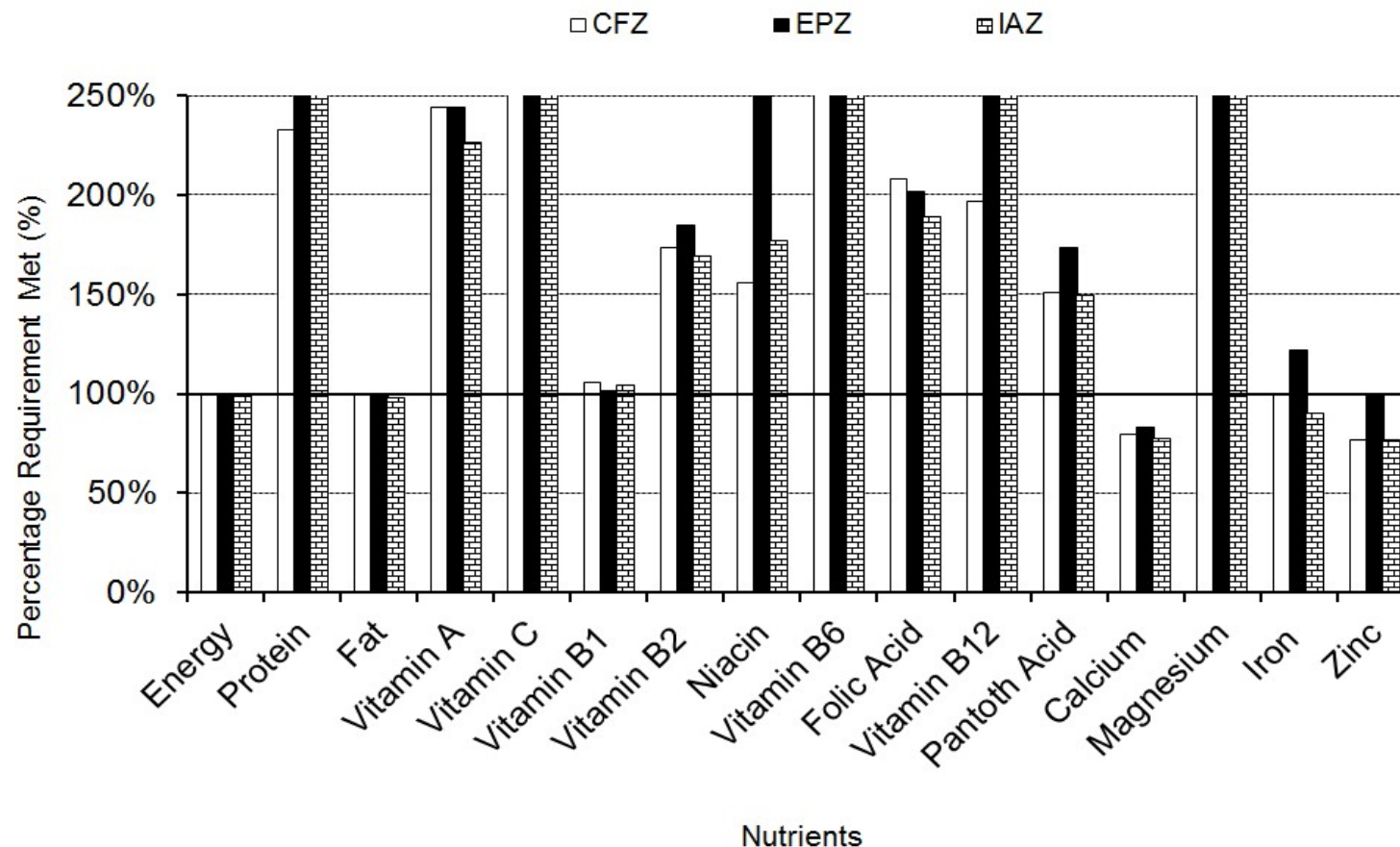


What does Cost of Diet tell us?

- Is it possible to meet energy and nutrient specifications using local foods?
 - If not, why not, or what nutrient specifications are most hard to meet?
- What is the cost of the foods identified?
- Is this diet affordable?
 - If not, what might be done?

Can we meet nutrient requirements with local foods?

- Rakhine-Myanmar

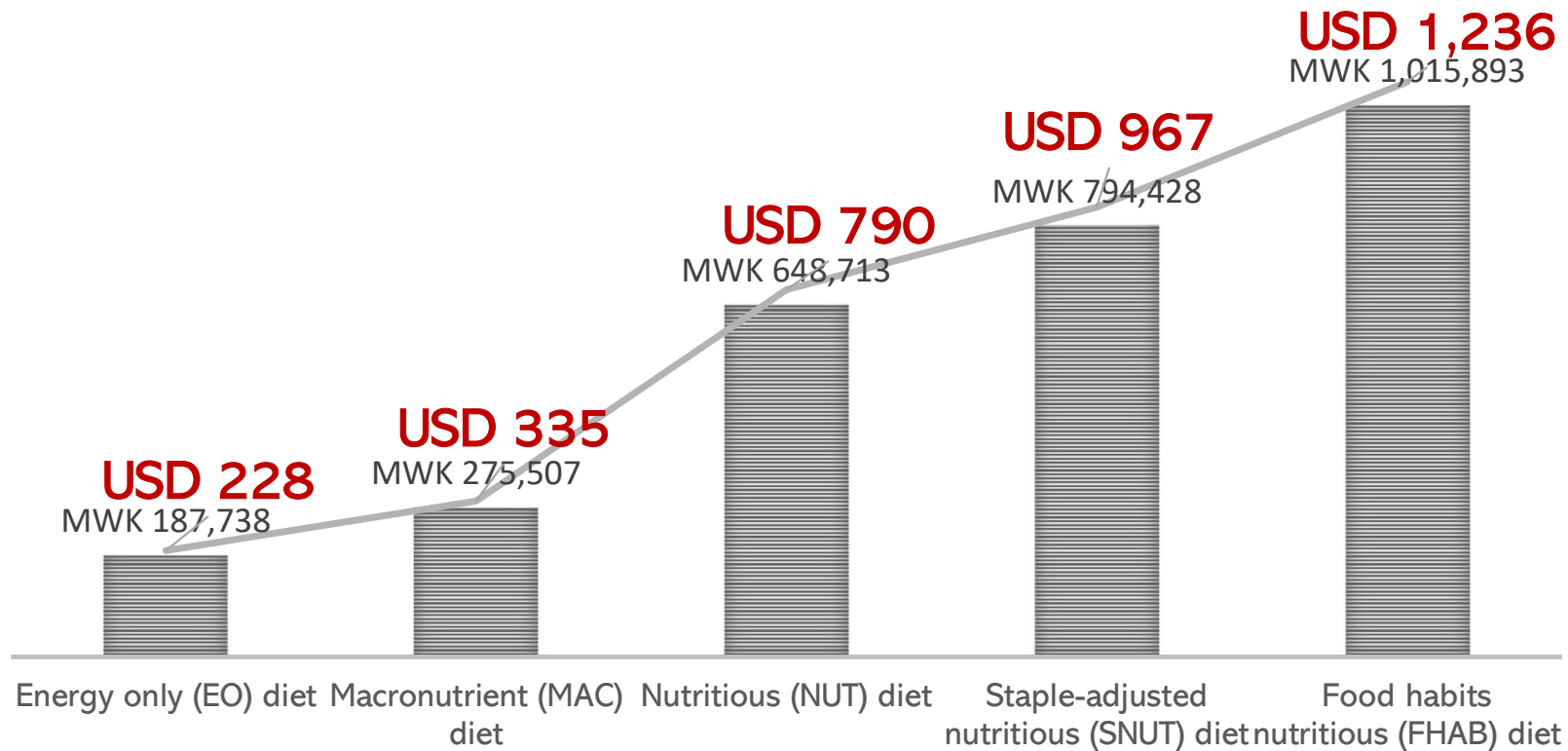


Poll question 2

Typically what happens to the cost of a diet when we add food habits information into the analysis?

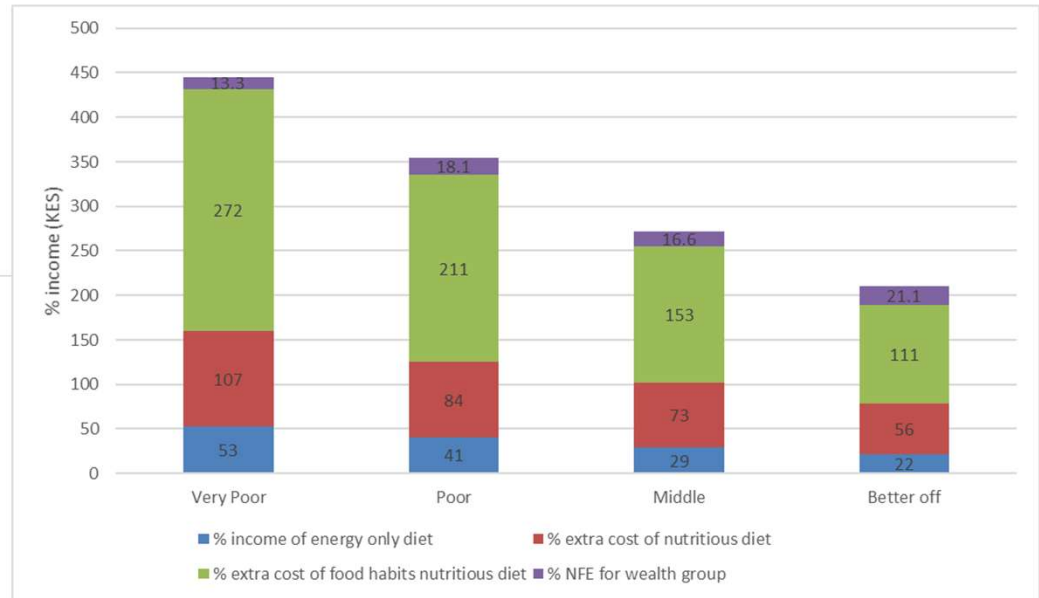
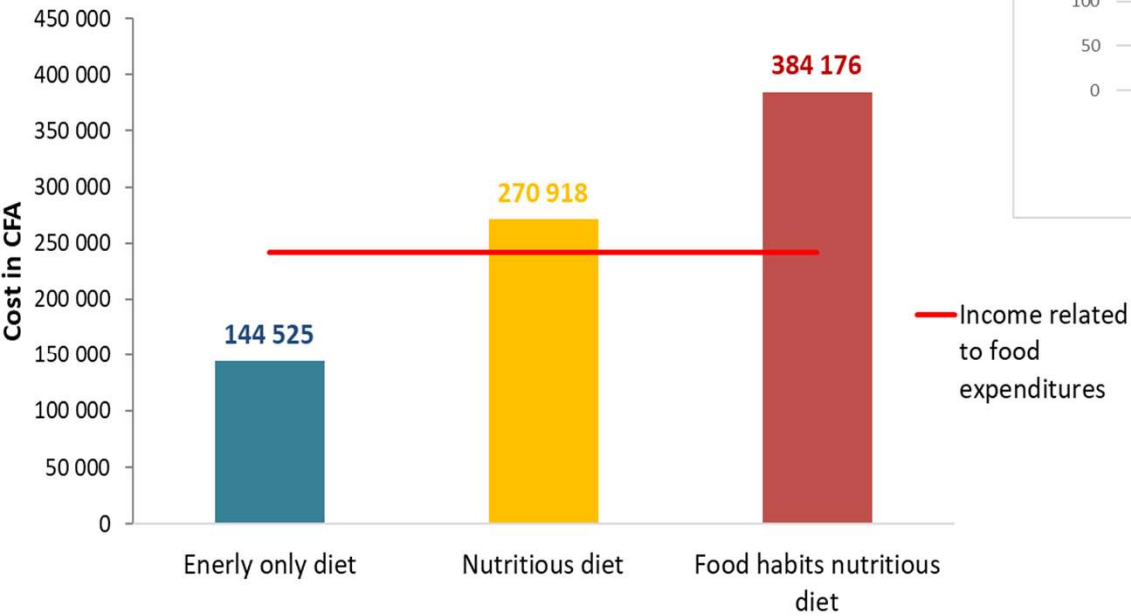
- The cost goes down
- The cost doesn't change
- The cost goes up

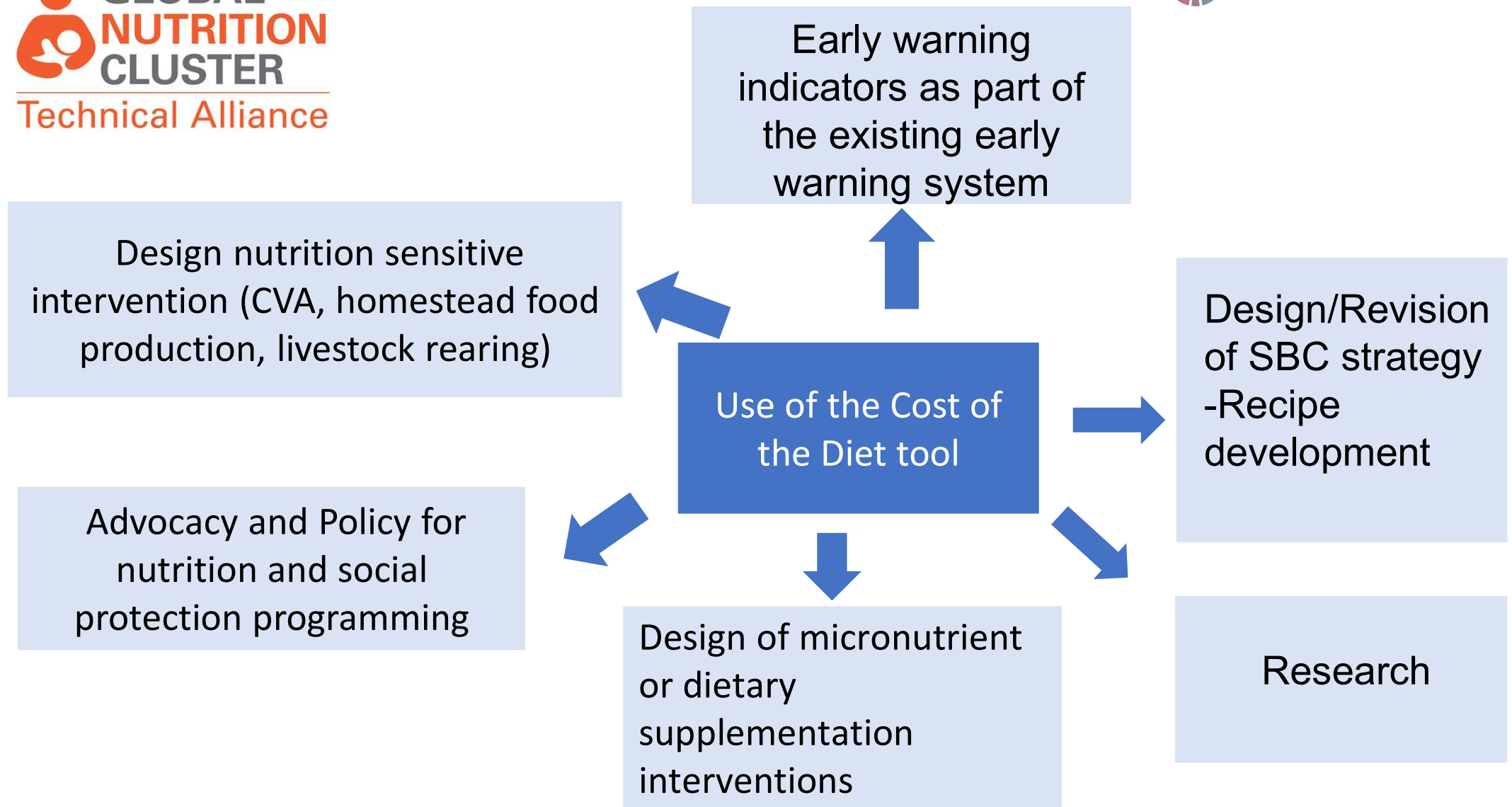
What is the cost of different diets?



Affordability gap analysis

Annual cost for different diets compared to income related to food expenditures for a very poor household (6 individuals)

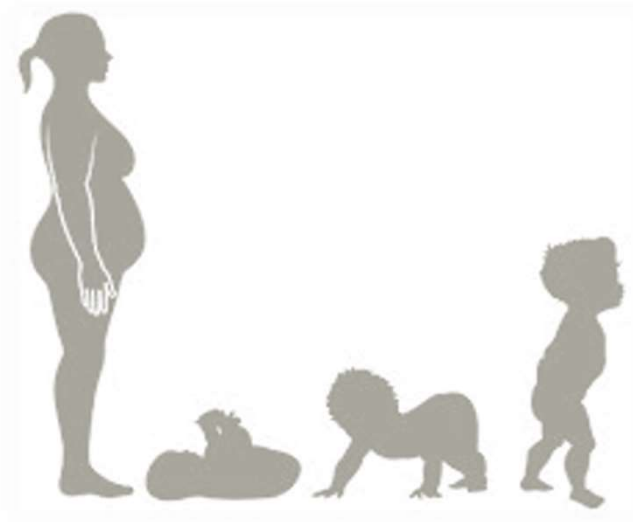




Creating a Maternal cash transfer in Myanmar

Cost of food habit diet 12-23 month old by Livelihood Zone:	Annual	Monthly
CFZ	94,445	7,870.41
EPZ	156,619	13,051.56
IAZ	104,447	8,703.91
Average		9,875.30

- Final Pilot transfer amount- 10,000 Kyat + 3,000 for Health expenditures=13,000
- Gov't interested in Scale-up-10,000 Kyat agreed amount
- Increased to 15,000 Kyat



In a 3 Arm RCT (Cash Only, Cash plus SBCC, Control) After 2 years....

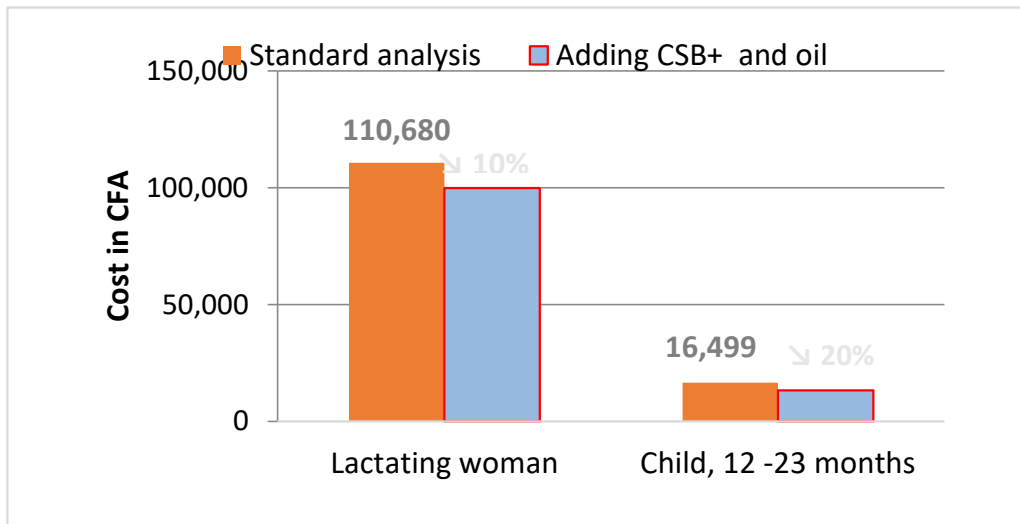
4 percentage point reduction ($p < 0.1$) in the proportion of stunted children (6 to 29 months old) in **Cash+SBCC** compared to control

Driven by a **4.4** percentage point reduction ($p < 0.05$) in the proportion of **moderately stunted** children

Micronutrient and dietary supplementation interventions

Effect on supplementation of specialized nutritious foods on the cost of a food habit nutritious diet

Adding a ration of CSB+ and fortified oil for a 12-23 mo child (40 g de CSB+, 5 g oil per day) and for a lactating woman (120 g de CSB+, 5 g oil per day) from a very poor household of 6 in Central North region of Burkina Faso.



Effect on MicroNutrient Powder (MNP) supplementation on the quality and the cost of a food habit nutritious diet

A CotD analysis in Pakistan found that iron and zinc requirements could not be met by local foods for a 9-11 month old child. The impact of giving this child a sachet of MNP twice a year for 30 days, six months apart on the quality of the diet was modelled.

The software estimated that all the nutrient requirements for the child could be met and the cost of the diet could be reduced by 60% as a result of this intervention.

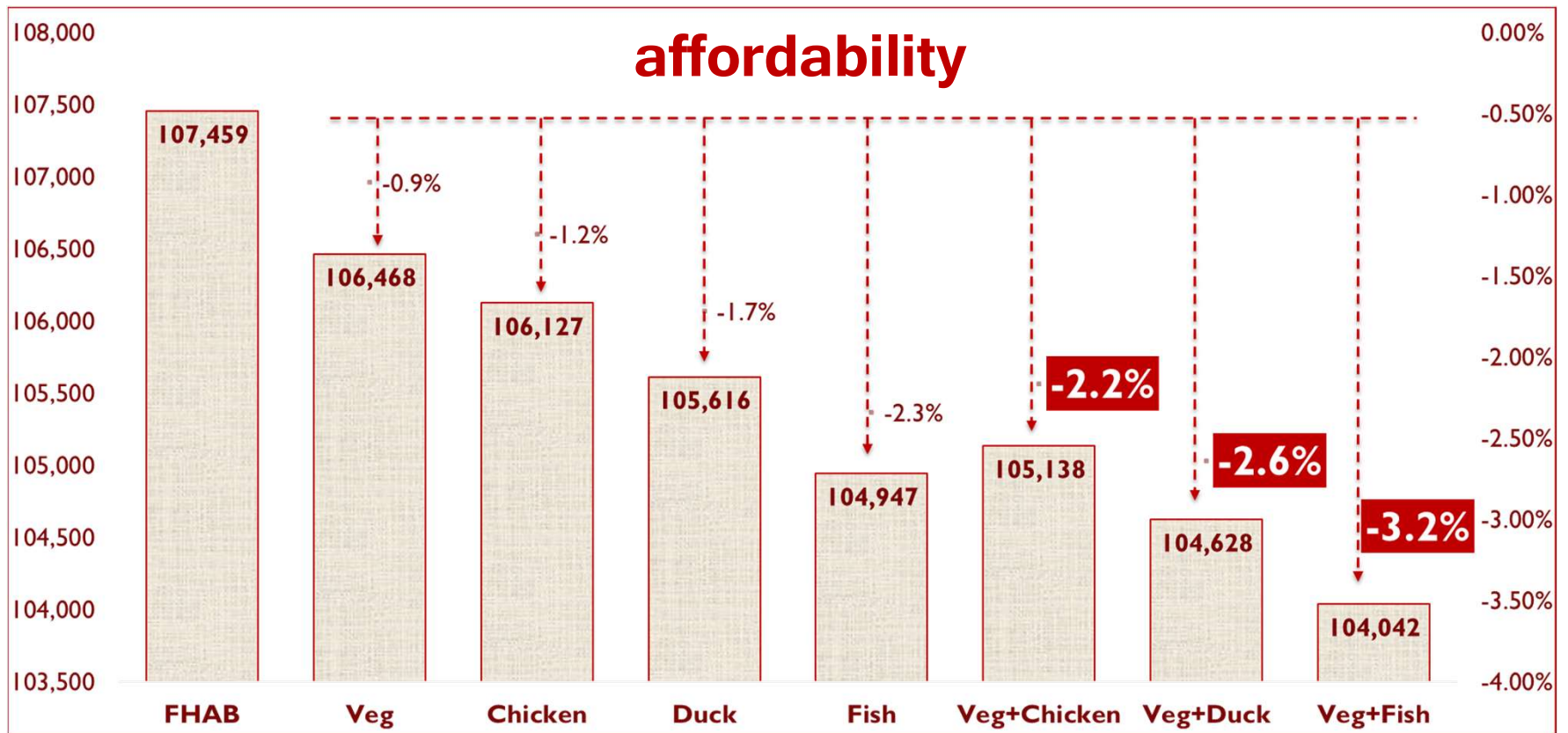
Nutrition sensitive intervention

Foods rich in micronutrients in study areas in Mali			
Region	Limiting Micronutrient	Free/wild foods rich in limiting micronutrients	Possible activities to improve production/consumption of foods rich in limiting micronutrients
Tombouctou	Calcium	Sorrel leaves, water lily tuber, dried fish, jujube/dried dates	Fishing (drying, smoking), Sorrel leaves (drying), Drying jujube and dates
	Folic Acid	Sorrel leaves, water lily seed	Sorrel leaves (drying)
	Iron	Sorrel leaves, water lily seed	fishing (drying/smoking), Sorrel leaves)
	Zinc	Sorrel leaves	Sorrel leaves (drying)
	Vitamin C	Jujube, tuber water lily, wild date, sorrel leaf	Jujube and sorrel leaf drying

Nutrition sensitive intervention

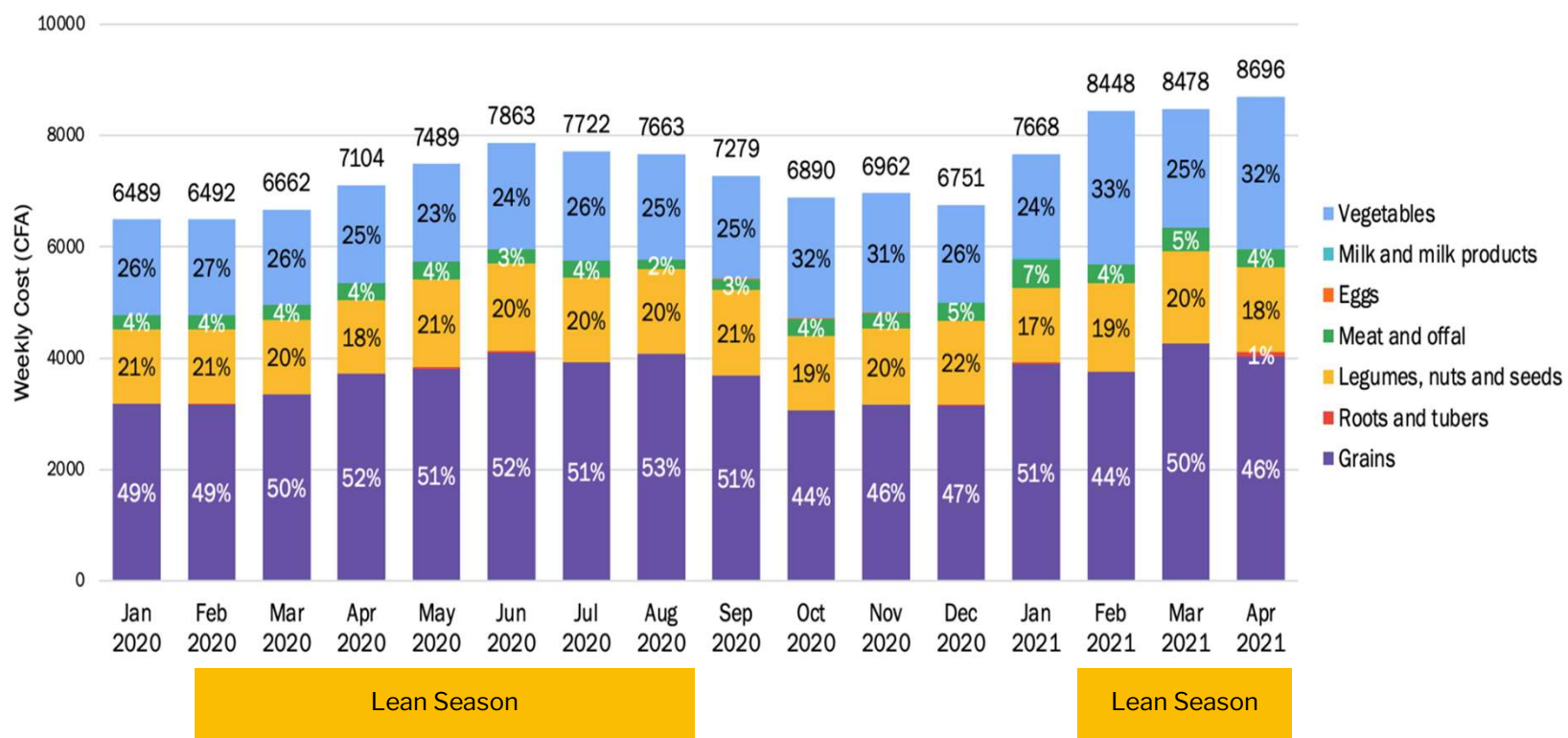
Effect of home food production (HFP) packages on

affordability



Price monitoring-Linkages with EWS

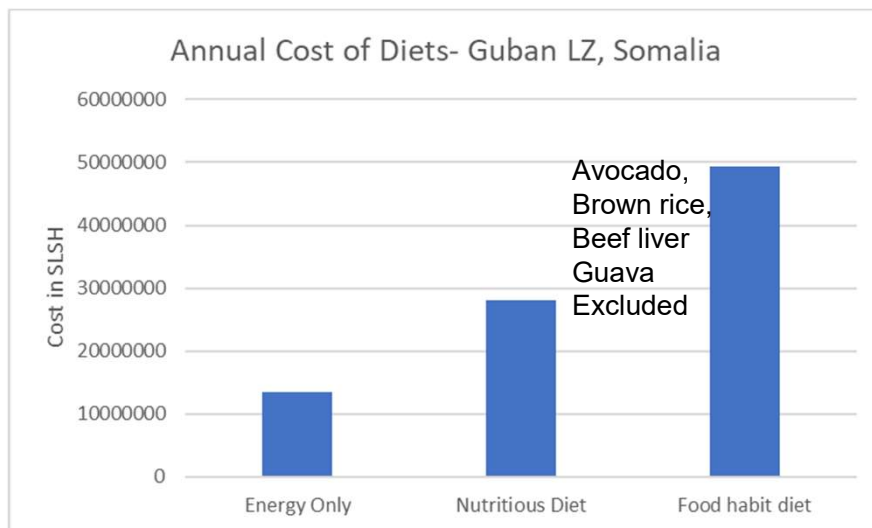
Cost and composition of Nutritious diet per month-Niger



[Monitoring the Impacts of COVID-19 on Affordable Diets: Real-Time Cost of the Diet and Household Economic Analysis pilot Zinder, Niger Results Brief | Save the Children's Resource Centre](#)

Design SBC strategy

CotD Assessments provide a wealth of information to help design your SBCC strategies, messages and materials



- Comparing Nutritious diet to food habits--> Key underutilized nutritious foods
- Costed Recipe development
- The cost of not breastfeeding
- Taboo foods

Recipes development for complementary food among U2 children

Nigeria case study

Twelve recipes were developed using the low-cost ingredients identified by the CotD assessment.

For each recipe the following was analysed using the Cost of the Diet software:

- The cost in Naira, USD and GBP for 1 serving,
- The quantities of nutrients that each serving of a meal provides for the target beneficiary (eg. A child aged 6-8,9-11 or 12-24 months),
- The percentage of the beneficiaries' nutrient requirements that have been met by a serving of the meal



- Advocacy and policy: Bangladesh, Nigeria, DRC



Malnutrition in a land of plenty

Key findings from research in East Kasai province, the Democratic Republic of Congo

Introduction

Why is it that a fertile and agriculturally productive region that can produce a variety of foods is the very same region where child stunting has reached a staggering rate of 50%? Child hunger and undernutrition is a persistent problem in the Democratic Republic of Congo (DRC), despite its lush hills and valleys. One out of ten children under five suffers from acute malnutrition, and half of all children are chronically malnourished. More than half a million children die each year in the DRC, with 1 in 10 children under-five.

Tackling child development targets for MI (to reduce child improvement contribute sig due to the he large and gro

Assessing the potential of wild foods to reduce the cost of a nutritionally adequate diet: An example from eastern Baringo District, Kenya

Céline Termote, Jessica Raneri, Amy Deptford, and Bruce

Abstract

Background. Wild foods and their actual and potential contributions to nutrition security have rarely been studied or considered in nutrition and conservation programs.

Objective. To study the role of wild food biodiversity in achieving a cost reduction of a nutritionally adequate diet for women and young children in Kenya using linear programming.

Methods. An ethnobiological inventory of available food biodiversity was carried out by means of focus group discussions, and five wild foods were selected for further modeling. A market survey assessed available food prices by season. Diets were modeled to minimize cost and maximize nutrient adequacy using the Cost of Diet linear programming tool. Modeling was done without and with wild foods.

Results. The modeled diets without wild species were deficient in iron for all age groups during the dry season, deficient in vitamin B₆ and calcium for infants aged 6 to 8 months during the dry season, and deficient in iron and zinc for infants aged 6 to 8 months over the whole year. Adding wild foods, especially *Berberis discolor*, to the modeled diets resulted in a lower-cost diet, while meeting recommended iron intakes for women and children between 12 and 23 months of age. Even after inte-

Key words: programming.

Introduction

The determinants in poverty and families while resilience, and challenge. For foods, including as a safety net ment diets with most of these s tional value, sa patterns and th undernourish municable dise The present fields of ethno study the role species in achi adequate diet l women, and y (covering the drv

SUCHANA
 Benefit level analysis of Maternity Allowance Programme for the Poor

About Suchana

Suchana: Ending the cycle of undernutrition in Bangladesh is a multi-sectoral nutrition program that aims to achieve a significant reduction in stunting among children under two years of age in Sylhet and Moulvibazar districts of Bangladesh. The program adopts an integrated approach to nutrition specific and nutrition-sensitive interventions to prevent chronic malnutrition within the critical 1,000 days from conception until a child reaches their second birthday.

To ensure nutritionally vulnerable households/individuals are able to absorb shocks (climatic, health and economic), a key component of the program focuses on increasing access among eligible households to existing government nutrition-sensitive social protection schemes.

This policy brief presents Cost of the Diet analysis the Suchana program conducted in Sylhet and Moulvibazar to assess how much of a nutritious diet three Maternal Allowance allocations (500, 800 and 1,000 BDT) can cover, and what the affordability gap is. This informs a set of recommendations for future MA allocations.

Audience: Government counterparts and development partners working on nutrition-sensitive social protection programming

Maternity Allowance Programme for the Poor (MA)

Access Study (2017) conducted by Save the Children in the Suchana program areas of Maternal Allowance (MA) was identified as a key social protection program.

allocation has been increased from BDT 500 to BDT 800 per month over a maximum of 1 year, alongside recent recommendations on amending aspects of the targeting criteria and conditions concerned with increasing the allocation to approximately 1,000 BDT per month.

Diet analysis the Suchana program conducted in Sylhet and Moulvibazar to assess how

Rana, Md Masud, Natalie Roschnik, Olusegun Taiwo, Anthony Kulemba, Deuseddit Dambuleni, and Brenda Phiri. 2023. "The Trends and Effects of Food Price Inflation on the Cost and Affordability of Nutritionally Adequate Diets in Malawi." *World Nutrition*, September, 3-13. <https://doi.org/10.26596/wn.20231433-13>

- Research: Role of wild, neglected and underutilized foods in reducing the cost of a diet in the eastern region of Baringo District, Kenya

Research

The trends and effects of food price inflation on the cost and affordability of nutritionally adequate diets in Malawi

Md Masud Rana¹, Natalie Roschnik², Olusegun Taiwo², Anthony Kulemba³, Deuseddit Dambuleni³, Brenda Phiri³

¹ Save the Children UK, ² Independent Consultant, ³ Save the Children Malawi

Keywords: Save the Children, cost of the diet, affordability, nutritious diet, food price, minimum expenditure basket, inflation, Malawi, poverty
<https://doi.org/10.26596/wn.20231433-13>

World Nutrition 2023;14(3):3-13

Background

Global challenges of hunger, food insecurity, and malnutrition have increased, with an estimated 3 billion people lacking sufficient food access. The COVID-19 pandemic has exacerbated these issues, particularly in Africa, where 59.6% of the population is still facing food insecurity. Malawi faces high stunting and anaemia rates in children, driven by poverty, inadequate health services, and improper diet. Despite progress, the prevalence remains above regional averages. Research reveals imbalanced diets in Malawi, primarily reliant



COST OF THE DIET

Resources Required for CotD

Financial

Cost will vary according to the assessment area covered

Approx. 25,000 (depending on internal capacity availability)

Human resources

Assessment Leader
CotD Practitioner
Data collectors / supervisors
Data entry clerk
Assessment Administrator

The CotD practitioner could cover the position of the Assessment Leader

Time frame

Maximum of 6 weeks

Depends mainly upon the length of data collection

Cost of Diet resources:

- Resource Centre: [Cost of the Diet - Save the Children's Resource Centre](#)
- New Software Version:
<https://github.com/SaveTheChildrenUK/CostOfTheDiet>
- Training resources: Face to face training- 5 days including field pilot
- On-line training- Hybrid self-guided model
- General Queries: COTD@savethechildren.org.uk

Linkages between CotD and Fill the Nutrient Gap (FNG), differences and similarities

Zebiba AYENEW
WORLD FOOD PROGRAM (WFP)



Fill the Nutrient Gap analysis & CotD use

November 2023

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The FNG Analytical Framework

Consultation with stakeholders

Secondary Data Analysis

Are nutritious foods available, accessible and chosen for consumption?

- Information about Food Systems
- Surveys, reports, peer-reviewed articles, grey literature

Cost of the Diet Analysis

What does a nutritious diet cost and is it affordable?

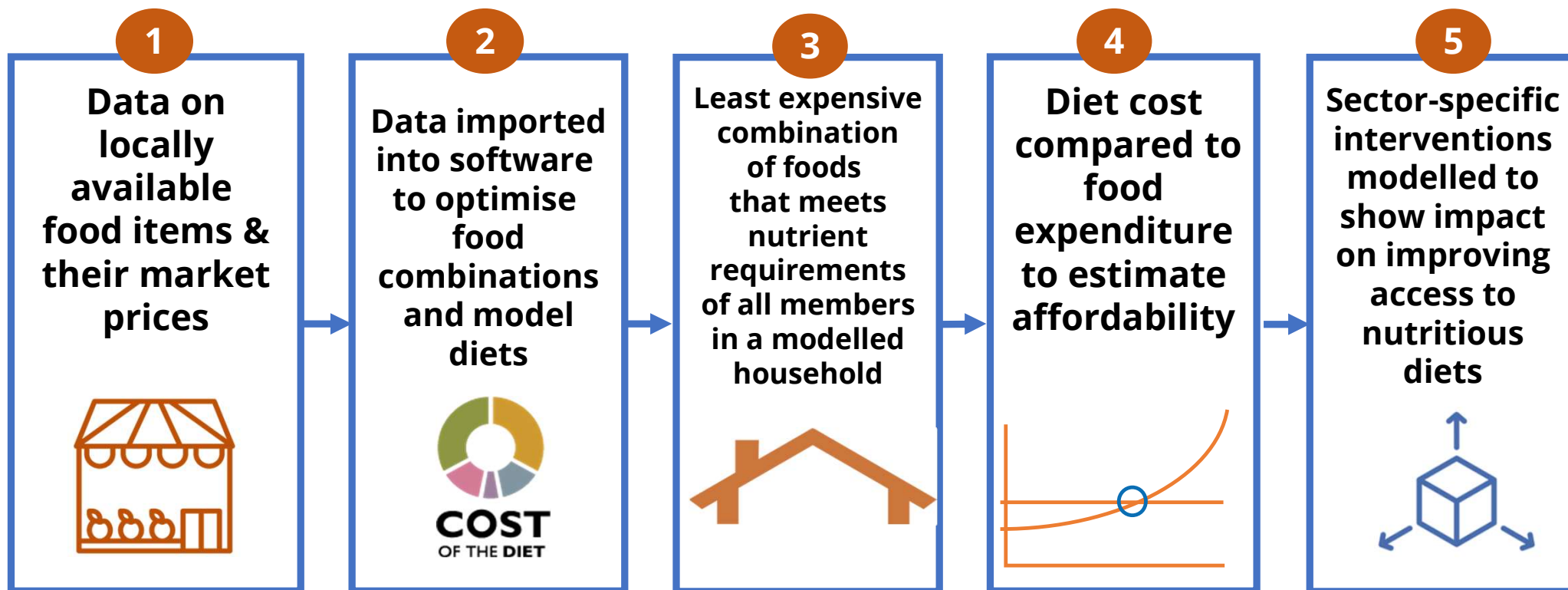
- Food price data
- Food expenditure data

Identify possible interventions
And entry points

Estimate minimum cost nutritious
diet and economic accessibility

Model interventions to improve access and affordability of nutritious diets

Overview of step-by-step process of CotD & affordability calculations for FNG objectives



Example size and composition of a model household

5-person household

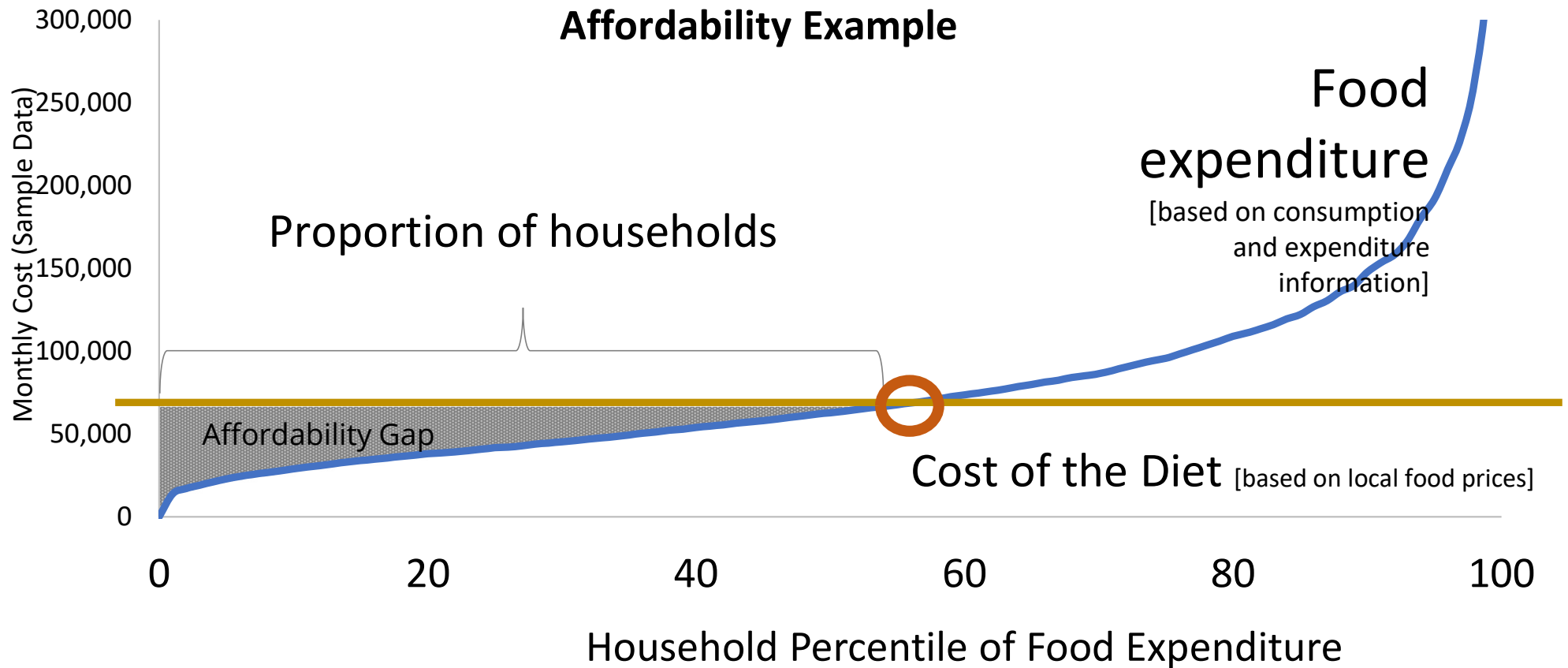
1. Child 12-23 months
2. School-age child 6-7 years
3. Adolescent girl 14-15 years
4. Breastfeeding woman
5. Adult man



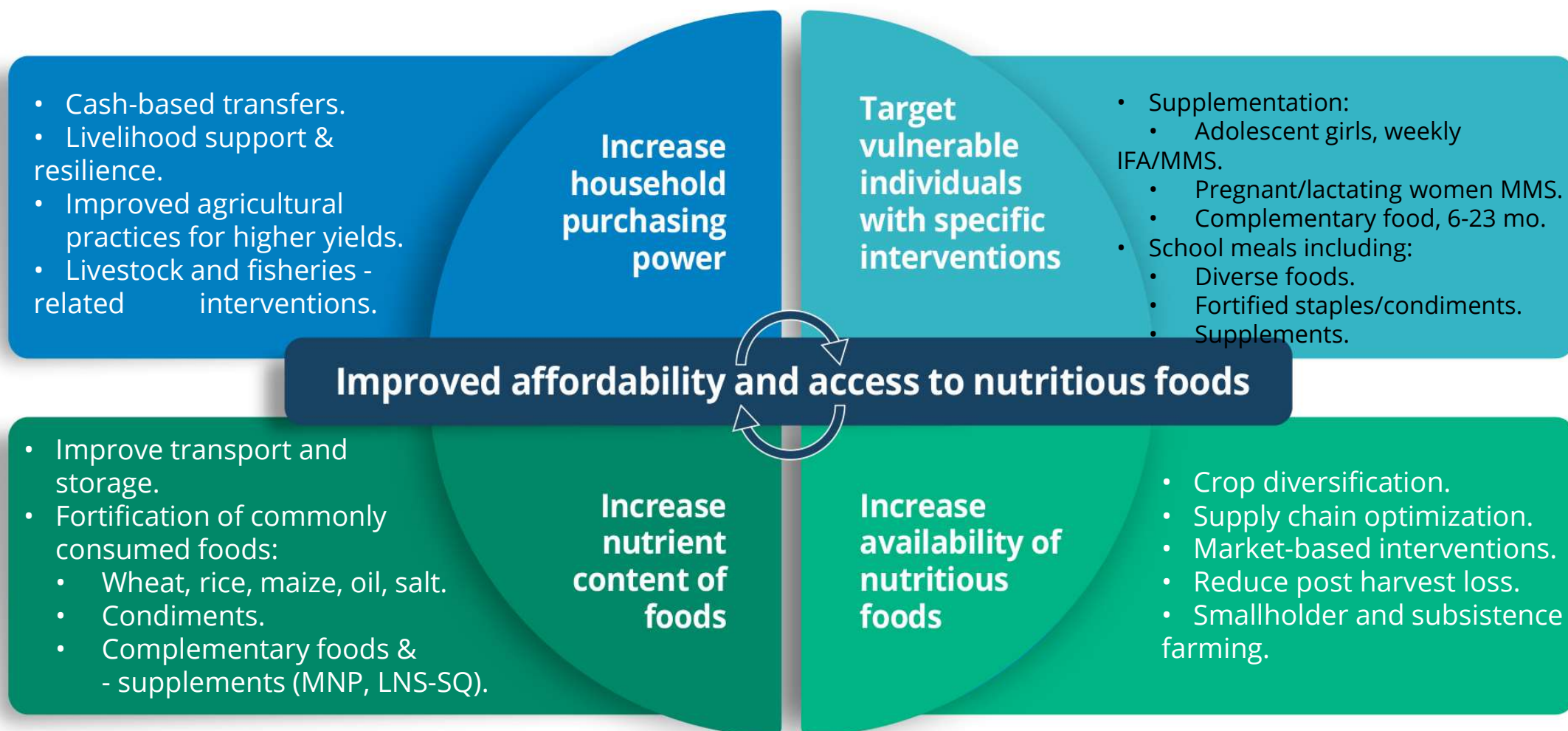
*Provides a good reference per-capita average (~2,100 kcal)
Allows to conduct analyses for specific target groups*

Diet name	Definition	Energy needs met	Protein needs met	Fat needs met	Micro-nutrient needs met	Constrains for staples and taboos	Reflects a typical diet
Energy only diet	A lowest cost diet that meets only the average energy requirements of the members of the household	X					
Macronutrient diet	A lowest cost diet that meets only the average energy and the recommended protein and fat requirements of the members of the household	X	X	X			
Nutritious diet	A lowest cost diet that meets specifications for energy, protein, fat and micronutrients but does not take into account typical dietary habits	X	X	X	X		
Staple-adjusted Nutritious Diet	A lowest cost diet that meets specifications for energy protein, fat and micronutrients includes the main staple and excludes taboo foods	X	X	X	X	X	
Food habits nutritious diet	A lowest cost diet that meets specifications for energy, protein, fat and micronutrients and takes into account typical dietary habits	X	X	X	X		X

Cost of the Diet and consumption/ expenditure data is used to estimate affordability



FNG models interventions from different sectors that could sustainably improve access to nutritious diets



Food Price Data



Food Prices

- Consumer Price Index
- Living Standards Measurement Survey
- National Household Consumption and Expenditure Survey
- National Household Panel Survey
- WFP market monitoring
- Primary data collection

Data sources

Food expenditure data

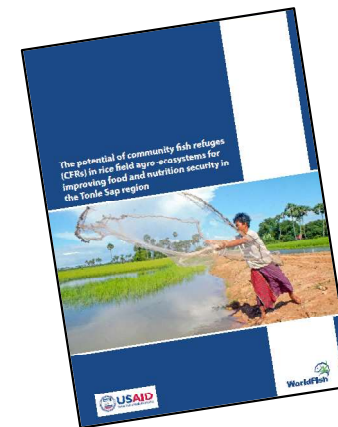
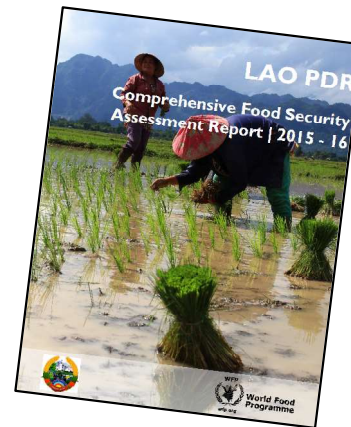
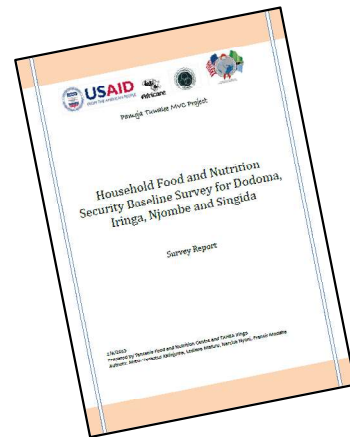


Expenditure

- Household Budget Survey
- Living Standards Measurement Survey
- National Household Consumption and Expenditure Survey
- National Panel Survey
- Vulnerability Assessment

Data sources for staple and taboo foods

- Key informants during FNG bi-lateral consultations
- Secondary data on food consumption patterns, food security or agriculture patterns
 - Household Consumption and Expenditure Surveys
 - Household Food and Nutrition Security Baseline surveys
 - Comprehensive Food Security Assessments (WFP)
 - National food production surveys from the Ministry of Agriculture



Differences b/n STC & WFP use of CotD

	Save the Children	WFP
Price data & food list	<ul style="list-style-type: none"> • Primary price data collection localized for the assessment area of interest • Exhaustive food list • Info from Early Warning and Early Action Systems 	<ul style="list-style-type: none"> • Based on secondary price data (nationally representative) • If unavailable, primary data collection based on list of commonly consumed foods
Scope	Livelihood zone(s), agroecological zone(s), districts	Usually, national level
Family/household	CotD standard households & HH size from HEA or similar dataset	Standard reference HH of 5
Diet costs calculated	<ul style="list-style-type: none"> • Energy-only • Macro-nutrient diet • Nutritious diet • Food habits nutritious diet 	<ul style="list-style-type: none"> • Energy-only • Staple-adjusted nutritious diet
Non-affordability estimation	Using income and essential non-food expenditure data through HEA if available; calculated in the software	Using food expenditure/consumption data; calculated in Excel/Stata the software
Application/used for	Inform specific programming objectives; programme designs; advocacy; early warning	Inform national policies & systems; advocacy; CSP formulation; programme design

Examples of FNG use for programmatic objectives

- Determine transfer value for fresh food voucher programme in Ethiopia
- Cost of nutritious diets used to cross-check food component of MEB in Mozambique
- CotD analysis used to inform WFP Cash for Prevention Programmes in Haiti and South Sudan
- CotD modelling used to advocate for addition of animal source foods to school meal menus in Mozambique

Examples of FNG use for systems' transformation, policy/advocacy purposes

Design of revise national/sub-national nutrition and food systems policy, action plan or investment framework

Pakistan, Tajikistan, Madagascar, Mozambique, Cambodia

Support engagement towards implementation of existing policies, plans and programmes

Nepal, Nigeria, Democratic Republic of Congo

Inform social and humanitarian assistance programmes and policies to be more nutrition-sensitive

Pakistan, Indonesia, Bangladesh, Kenya, Dominican Republic, Ethiopia, Ecuador, Cambodia

Align strategies of multi-sectoral stakeholder to better serve nutrition outcomes at all levels

Bangladesh, Cambodia, Sri Lanka, Uganda, Rwanda, Indonesia, Lesotho

FNG also informs WFP's Country Strategic Planning processes



For more info & reports:

[Fill the Nutrient Gap | World Food Programme \(wfp.org\)](https://www.wfp.org/publications/fill-nutrient-gap)

<https://www.wfp.org/publications/fill-nutrient-gap>



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Q&A

Feedback Questions

For which purposes would you be interested in using the CotD? Please select three options

- Estimation of cash transfer value for vulnerable households/individuals as part of a CVA program
- Design of nutrition specific interventions (micronutrition supplementation, fortified blended flour)
- Design nutrition sensitive interventions (homestead food production, livestock rearing, etc)
- Development of recipes for complementary food among U2 children and/or PLW
- As part of the design of SBC strategy
- As an early warning indicator as part of the existing early warning system
- Advocacy/Policy
- Research

Feedback Questions

Now that you know a bit more about the CotD how likely are you to use this tool in your work?

- a. Not at all
- b. Somewhat likely
- c. Highly likely
- d. Absolutely will

CONCLUSIONS

- CotD is a very useful methodology to inform CVA but also other components of the design of programs; it is tailored to the preference of individuals at risk and reflecting local prices and income

- FNG is very useful to inform national policies & systems analysis ; advocacy; CSP formulation; program design

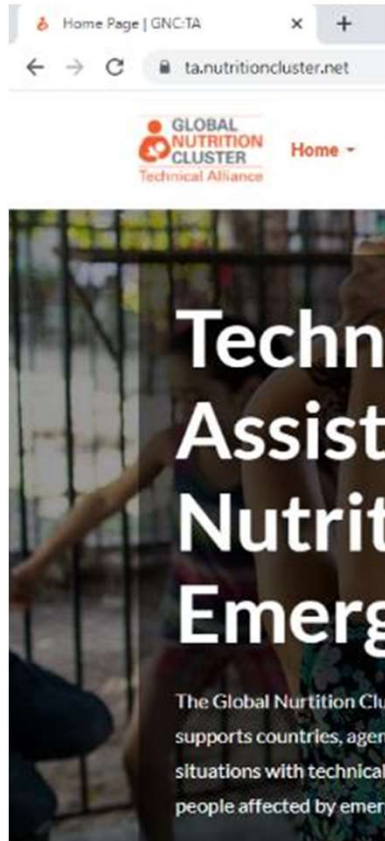
**Next
steps and
closing!**

Looking for support in Nutrition in Emergencies?

	Type of supported needed	Provider
1	I want remote or in-country technical support	GNC Technical Alliance
2	I want to hire a consultant directly	GNC Technical Alliance Consultant Rosters
3	I want quick technical advice	GNC HelpDesk
4	I want peer support	www.en-net.org

Visit: <https://ta.nutritioncluster.net/> and click "Request Support"

Where to find the Alliance



Request form

Fill in the form below to get in touch with the **Technical Alliance Team**

Name and Surname

Email Address

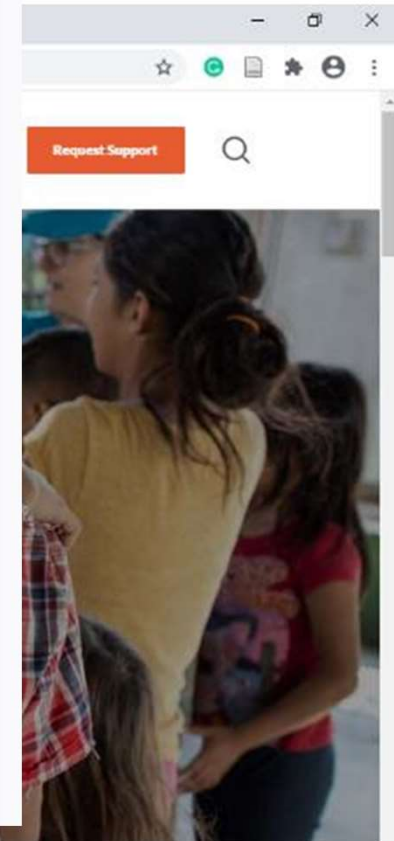
Type of Organization

Location Region

Type of Enquiry Request Urgency

Subject of Request

Description



Please fill out the brief webinar evaluation
it will take less than 5 minutes
(it will pop up when you close the webinar)