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Improving children's nutrition: understanding the impact of a food voucher program in Cameroon's far-north region

Submission date
29/11/2023

Recruitment status
No longer recruiting

Registration date
12/12/2023

Overall study status
Completed

Last Edited
12/12/2023

Condition category
Other

[_] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[_] Record updated in last year

Plain English summary of protocol

Background and study aims
In Cameroon, many programs treat acutely malnourished children, but there are insufficient supplies of ready-to-use foods and fortified blended foods to treat all children in need. This study aimed to evaluate the feasibility and effectiveness of food voucher program in treating children with moderate malnutrition in the Far North region and what factors affected their diet and recovery.

Who can participate?
Children aged 6-53 months confirmed by health workers working at community health centers to have moderate acute malnutrition (middle-upper arm circumference [MUAC] measures between 115 mm – 124 mm and/or weight-for-height z-scores [WHZ] between -2 and -3) and their caregivers residing in the Kaele health district

What does the study involve?
Children and their caregivers were given vouchers to buy a pre-defined basket of nutritious foods every two weeks. The food basket was designed using NutVal software to provide sufficient supplementary calories and micronutrients to the child’s usual diet to support recovery to normal MUAC and/or WHZ. Education on appropriate hygiene and nutrition practices was also provided. The study examined how the treatment affected enrolled children's diet and recovery, and what factors influenced these outcomes. Factors evaluated included dietary intake of children and caregivers' socio-demographic characteristics and nutrition knowledge. The researchers also ensured that participants received the nutrition program services and that child diagnosed with severe acute malnutrition were referred to appropriate treatment services.

What are the possible benefits and risks of participating?
Benefits of participating: Everyone in the study received the nutrition program services. Children at risk were referred to more intensive care.
Potential risks of participating: Children might feel a slight pressure when their arm is measured.

In some households, the interviews might require 1-1.5 hours of the households' time, but the time spent with any single participant was less. The measurements used in the study were safe and are commonly used worldwide to check the health of children and mothers.

Where is the study run from?
The United States Agency for International Development (USA)

When is the study starting and how long is it expected to run for?
March 2020 to August 2020

Who is funding the study?
The United States Agency for International Development (USA)

Who is the main contact?
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Additional identifiers

Protocol serial number
USAID Grant No. AID-OFDA-G-17-00178

Study information

Scientific Title
Factors associated with the dietary and treatment outcomes of children with moderate acute malnutrition treated in a food voucher program in the far-north region of Cameroon

Acronym
FVPFNC

Study objectives
Providing families of children diagnosed with moderate acute malnutrition in Cameroon's Far North Region with a voucher to purchase a basket of nutrient-rich foods designed to supplement the children's normal diet can be as effective as the standard of care in supporting recovery and improving dietary diversity.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 20/02/2020, National Ethics Committee for Research in Health in Cameroon (Yaoundé, Cameroon, Yaoundé, -, Cameroon; (+237) 243 67 43 39 / 690 99 67 81; setcominae@gmail.com), ref: 2020/02/1207/CE/CNERSH/SP

Primary study design
Observational

Study design

Observational longitudinal trial

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Treatment of children with moderate acute malnutrition

Interventions
A three-month longitudinal study was carried out by an independent team of researchers within the context of a one-year humanitarian project designed to treat children with moderate wasting (middle-upper arm circumference [MUAC] measures 115mm - 125 mm) by providing caretakers with a bi-weekly voucher to purchase a predefined basket of foods together with essential hygiene and nutrition education.

A sample of 474 children were randomly selected from the cohort enrolled in the program for inclusion in the study. Using a pre/post-test design, we evaluate the effect of the receipt of food vouchers on dietary outcomes using as indicators minimum dietary diversity (MDD) for children aged 6-23 months and dietary diversity scores (DDS) for children aged 24-53 months. Mixed logistic and linear regressions were used to identify factors from socio-demographic data and program activities (cooking demonstrations and nutrition education, perception of food safety, food basket sharing, and lasting) associated with these variables. Life table analysis was employed to assess the likelihood of achieving the MDD among children aged 6-23 months.

Intervention Type
Other

Primary outcome(s)
Dietary outcomes were measured using minimum dietary diversity (MDD) for children aged 6-23 months and dietary diversity scores (DDS) for children aged 24-53 months

Key secondary outcome(s)
1. Matrimonial status measured using face-to-face interview at the baseline.
2. Mother’s age measured using face-to-face interview at the baseline.
3. Mother’s education level measured using face-to-face interview at the baseline.
4. Sex of child measured using face-to-face interview at the baseline.
5. Age of the child measured using face-to-face interview at the baseline.
6. Household Food Insecurity Access Scale (HFIAS) measured using face-to-face interview at the baseline.
7. Number of participations to cooking demonstrations measured using direct interviews every two weeks for three months.
8. Number of participations to nutrition education measured using direct interviews every two weeks for three months.
9. Number of visits every 2 weeks by Community Health Workers measured using direct interviews every two weeks for three months.
10. Perception regarding the safety of food items redeemed measured using direct interviews every two weeks for three months.
11. Consumption status of enriched porridge by family members measured using direct interviews every two weeks for three months.
12. Lasting status of food items before the next distribution measured using direct interviews every two weeks for three months.

Completion date
31/08/2020

Eligibility

Key inclusion criteria
1. Children aged 6-53 months with middle-upper arm circumference measures between 115 mm and 124 mm

Participant type(s)
Patient, Health professional, Carer, Service user

Healthy volunteers allowed
No

Age group
Child

Lower age limit
6 Months

Upper age limit
53 Months

Sex
All

Total final enrolment
474

Key exclusion criteria
1. Children outside the age range
2. Children aged 6-53 months with severe acute malnutrition (MUAC <115 mm) and/or edema

Date of first enrolment
01/03/2020

Date of final enrolment
31/03/2020

Locations

Countries of recruitment
Cameroon

Study participating centre
Kaele Health District
P.O. Box 85

Kaele
Cameroon
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Sponsor information

Organisation
United States Agency for International Development

ROR
https://ror.org/01n6e6j62

Funder(s)

Funder type
Government

Funder Name
United States Agency for International Development

Alternative Name(s)
U.S. Agency for International Development, Agency for International Development, USAID

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United States of America

Results and Publications

Individual participant data (IPD) sharing plan
The datasets generated during and/or analyzed during the current study are available upon request from Jennifer Nielsen, Senior Nutrition Advisor, Helen Keller Intl, email: jnielsen@hki.org

IPD sharing plan summary
Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol file		14/11/2019	11/12/2023	No	No