Wasting and stunting in young children in developing countries

Submission date	Recruitment status	Prospectively registered
21/08/2017	No longer recruiting	☐ Protocol
Registration date 21/08/2017	Overall study status Completed	Statistical analysis plan
		[X] Results
Last Edited	Condition category	[] Individual participant data
26/11/2019	Nutritional Metabolic Endocrine	

Plain English summary of protocol

Background and study aims

Wasting (having a low weight-for-height) and stunting (having a low height-for-age) are common and are implicated in the deaths of almost two million children each year. Wasting and stunting tend to be addressed as separate issues despite evidence of common causes and the fact that many children suffer simultaneously from both conditions. The aim of this study is to examine the size of the overlap between wasted and stunted children to determine the degree of overlap and the association with underweight children.

Who can participate? Children aged 6-59 months

What does the study involve?

A database of surveys is created containing data for almost 1.8 million children. This is analysed to determine the overlap between sets of wasted, stunted, and underweight children; the association between being wasted and being stunted; the severity of wasting and stunting; and the prevalence of wasting and stunting by age and sex.

What are the possible benefits and risks of participating?

There are no benefits or risks to the children who are measured. The benefit is to the international community concerned with addressing all forms of child undernutrition.

Where is the study run from? Emergency Nutrition Network (UK)

When is the study starting and how long is it expected to run for? January 1992 to December 2015

Who is funding the study?

- 1. US Agency for International Development (USA)
- 2. Irish Aid (Ireland)

Contact information

Type(s)

Scientific

Contact name

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Contact details

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Additional identifiers

Protocol serial number

N/A

Study information

Scientific Title

Children who are both wasted and stunted are also underweight and have a high risk of death – policy implications

Study objectives

This study examined the magnitude of overlap between wasted and stunted children to determine the degree of overlap and the association with underweight children.

Ethics approval required

Old ethics approval format

Ethics approval(s)

This is an observational study so does not need ethical approval. All data was anonymous and was secondary and readily available for further analysis. There were no human or animal subjects.

Study design

Observational cross-sectional study

Primary study design

Observational

Study type(s)

Other

Health condition(s) or problem(s) studied

Nutrition

Interventions

A database of cross-sectional survey datasets containing data for almost 1.8 million children was compiled. This was analysed to determine the intersection between sets of wasted, stunted, and underweight children; the association between being wasted and being stunted; the severity of wasting and stunting in WaSt children; and the prevalence of WaSt by age and sex. An additional analysis of the WHO Growth Standards sought the maximum possible weight-for-age z-score for WaSt children.

Intervention Type

Other

Primary outcome(s)

Overlap between wasted, stunted and underweight children as measured by <-2SD WHZ, HAZ, WAZ

Key secondary outcome(s))

Degree of concurrence i.e. <-2SDWHZ AND ,-2SDHAZ in children and by age (6-59 months) and by sex (male/female)

Completion date

01/12/2015

Eligibility

Key inclusion criteria

- 1. 6-59 month old children
- 2. Males and females

Participant type(s)

Αll

Healthy volunteers allowed

No

Age group

Child

Lower age limit

6 months

Upper age limit

59 months

Sex

All

Total final enrolment

1796991

Key exclusion criteriaChildren over 59 months of age

Date of first enrolment

01/01/1992

Date of final enrolment 01/12/2015		
Locations		
Countries of recruitment Afghanistan		
Albania		
Algeria		
American Samoa		
Angola		
Bahrain		
Bangladesh		
Benin		
Burkina Faso		
Burundi		
Cabo Verde		
Cambodia		
Cameroon		
Central African Republic		
Chad		
Congo		

Congo, Democratic Republic

Djibouti

Côte d'Ivoire

Ecuador
Equatorial Guinea
Eritrea
Ethiopia
Gabon
Gambia
Ghana
Guinea-Bissau
Haiti
India
Indonesia
Kenya
Lao People's Democratic Republic
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mozambique
Myanmar
Namibia
Nepal
Niger
Nigeria
Pakistan

Rwanda
Senegal
Sierra Leone
Somalia
South Sudan
Sudan
Tajikistan
Tanzania
Timor-Leste
Uganda
Yemen
Zambia
Zimbabwe
Study participating centre
- Chad
Sponsor information

OrganisationEmergency Nutrition Network

Funder(s)

Funder type

Government

Funder Name

United States Agency for International Development, 295 Grant Number: ENN AID-OFDA-G-15-00190

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

Funder Name

Irish Aid

Alternative Name(s)

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

Ireland

Results and Publications

Individual participant data (IPD) sharing plan

These are merged datasets which many international organisations feed into when the surveys are complete. The data is anonymous so there is no risk of invading confidentiality. These are quite old SMART surveys that might not be used again. The agencies also have the data and the source agency is acknowledged in the paper. The data is officially 'owned' by the donors who funded the surveys originally and they insist on open access data exactly for the purpose of further analysis. The lead author is a senior analyst who has access to the datasets and has used the data for previous well known peer reviewed publications.

IPD sharing plan summary

Stored in repository

Study outputs

Output type Details Date created Date added Peer reviewed? Patient-facing?

Results article 16/07/2018 26/11/2019 Yes No