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Wasting and stunting in young children in developing countries

Submission date
21/08/2017

Registration date
21/08/2017

Last Edited
26/11/2019

Recruitment status
No longer recruiting

Overall study status
Completed

Condition category
Nutritional, Metabolic, Endocrine

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

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)

Who is the main contact?
Ms Carmel Dolan

Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

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)
All

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 criteria

Children 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

Côte d'Ivoire

Djibouti

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

Organisation
Emergency 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	results	16/07/2018	26/11/2019	Yes	No