

**Undernutrition Amongst Children Living in Refugee Camps: A Systematic Review of Prevalence**

**Supplementary Material**

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## APPENDICES

## Appendix 1 – PRISMA checklist [1]

Section and Topic	Item #	Checklist item	Location where item is reported
<b>TITLE</b>			
Title	1	Identify the report as a systematic review.	P1
<b>ABSTRACT</b>			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	N/A
<b>INTRODUCTION</b>			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	P4/5
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	P5
<b>METHODS</b>			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	P5/6 Appendix 2
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	P6
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	Appendix 3/4
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	P6
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	P7
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	P7
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	P7/Appendix 5
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	P7
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	P7
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	P7

Section and Topic	Item #	Checklist item	Location where item is reported
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	N/A
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	P7
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	P7
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	N/A
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	N/A
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	N/A
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	N/A
<b>RESULTS</b>			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	P9 / Figure 1
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	N/A
Study characteristics	17	Cite each included study and present its characteristics.	P8 / Appendix 6
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	Appendix 6
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	Table 3 and Figures 2-10
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	P8/9
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	Figures 2-10
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	N/A
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	N/A
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	N/A
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	N/A
<b>DISCUSSION</b>			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	P10-11

Section and Topic	Item #	Checklist item	Location where item is reported
	23b	Discuss any limitations of the evidence included in the review.	P12
	23c	Discuss any limitations of the review processes used.	P12
	23d	Discuss implications of the results for practice, policy, and future research.	P12-13
<b>OTHER INFORMATION</b>			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	N/A
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	N/A
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	N/A
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	N/A
Competing interests	26	Declare any competing interests of review authors.	N/A
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	N/A

**Appendix 2: Inclusion and exclusion criteria**

<b>Inclusion criteria</b>	<b>Exclusion criteria</b>
Includes data on the prevalence of undernutrition (i.e. stunting, wasting, underweight or acute malnutrition).	Data for children under 5 years cannot be separated from data for other age groups or from groups living outside refugee camps.
Some or all participants were living in a refugee camp.	Studies focussed micronutrient deficiencies or overweight and obesity only.
Some or all participants are children aged less than 5 years (60 months) old.	Focussed solely on displaced people not living in camps outside their country of origin.
Primary data from observational study or survey.	Review papers, meta-analyses, editorials, comments, case-reports.
Access to full text in English language in public domain or with institutional access.	Intervention studies.
Published in 2015 or later.	

**Appendix 3 - Search Strategy**

Database	Search strategy	Date	Papers retrieved	
OVID Medline	1	refugee camp*.ti,ab.	12.05.22	23
	2	exp Refugee Camps/		
	3	1 or 2		
	4	child*.ti,ab.		
	5	infan*.ti,ab.		
	6	exp child/		
	7	exp infant/		
	8	4 or 5 or 6		
	9	malnutrition.ti,ab.		
	10	nutrition*.ti,ab.		
	11	malnourish*.ti,ab.		
	12	underweight.ti,ab.		
	13	stunt*.ti,ab.		
	14	wast*.ti,ab.		
	15	undern*.ti,ab.		
	16	anthropometr*.ti,ab.		
	17	exp child nutrition disorders/		
	18	exp malnutrition/		
	19	exp infant nutrition disorders/		
	20	wasting syndrome/		
	21	exp growth disorders/		
	22	exp anthropometry/		
	23	exp body size/		
	24	exp nutritional status/		
	25	exp body mass index/		
	26	9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25		
	27	prevalen*.ti,ab.		
	28	epidemiolog*.ti,ab.		
	29	proportion.ti,ab.		
	30	frequen*.ti,ab.		
	31	exp Prevalence/		
	32	27 or 28 or 29 or 30 or 31		
	33	1 and 8 and 26 and 32		
	Published 2015 or later			
CAB Global Health	1	refugee camp*.ti,ab.	12.05.22	24
	2	child*.ti,ab.		
	3	infan*.ti,ab.		
	4	malnutrition.ti,ab.		
	5	nutrition*.ti,ab.		
	6	malnourish*.ti,ab.		
	7	underweight.ti,ab.		
	8	stunt*.ti,ab.		
	9	wast*.ti,ab.		
	10	undern*.ti,ab.		

	11	anthropometr*.ti,ab.		
	12	nutrition disorder*.ti,ab.		
	13	growth disorder*.ti,ab.		
	14	body mass index.ti,ab.		
	15	prevalen*.ti,ab.		
	16	epidemiolog*.ti,ab.		
	17	proportion.ti,ab.		
	18	frequen*.ti,ab.		
	19	2 or 3		
	20	4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14		
	21	15 or 16 or 17 or 18		
	22	1 and 19 and 20 and 21		
		Published 2015 or later		
PubMed		("refugee camp"[Title/Abstract]) AND ((child*[Title/Abstract]) OR (infan*[Title/Abstract])) AND ((malnutrition[Title/Abstract]) OR (nutrition*[Title/Abstract]) OR (malnourish*[Title/Abstract]) OR (underweight[Title/Abstract]) OR (stunt*[Title/Abstract]) OR (wast*[Title/Abstract]) OR (undern*[Title/Abstract]) OR (anthropometr*[Title/Abstract]) OR ("nutrition* disorder*" [Title/Abstract]) OR (growth disorder*[Title/Abstract]) OR (body mass index*[Title/Abstract])) AND ((prevalen*[Title/Abstract]) OR (epidemiolog*[Title/Abstract]) OR (proportion[Title/Abstract]) OR (frequen*[Title/Abstract]))	12.05.22	11
Scopus		TITLE-ABS-KEY("refugee camp") AND TITLE-ABS-KEY(child* OR infan*) AND TITLE-ABS-KEY(malnutrition OR nutrition* OR malnourish* OR underweight OR stunt* OR wast* OR undern* OR anthropometr* OR "nutrition* disorder*" OR "nutrition* status" OR "growth disorder" OR "body mass index" OR BMI) AND TITLE-ABS-KEY(prevalen* OR epidemiolog* OR proportion OR frequen*) AND PUBYEAR AFT 2014	12.05.22	40

**Appendix 4 – Supplementary search activities**

<b>Source searched</b>	<b>Terms or strategy used</b>	<b>Date</b>	<b>Reports retrieved</b>
Citation chasing	Manual searching of reference lists Forward citation chasing using SCOPUS citation index or Web of Science where not available on SCOPUS	11/07/22	2
Google search	Terms used: 'child malnutrition survey refugee camps'	11/07/22	11
Searching organisation websites	UNHCR microdata library: <a href="https://microdata.unhcr.org">https://microdata.unhcr.org</a> Searched: 'nutrition' with date restriction 2015-2022 Reliefweb: <a href="https://reliefweb.int/">https://reliefweb.int/</a> Searched 'nutrition survey refugee' - restricted to theme "food and nutrition" and published after 31/12/2014	11/07/22 12/07/22	13 6
Other organisations' websites searched which returned no additional results	UNICEF ( <a href="https://www.unicef.org/">https://www.unicef.org/</a> ) WFP ( <a href="https://www.wfp.org/">https://www.wfp.org/</a> ), Action Against Hunger ( <a href="https://www.actionagainsthunger.org.uk/">https://www.actionagainsthunger.org.uk/</a> ), ACAPS ( <a href="https://www.acaps.org/what-we-do/reports">https://www.acaps.org/what-we-do/reports</a> ) The Border Consortium ( <a href="https://www.theborderconsortium.org/category/reports-survey/">https://www.theborderconsortium.org/category/reports-survey/</a> ) Global Nutrition Cluster ( <a href="https://www.nutritioncluster.net/">https://www.nutritioncluster.net/</a> ) UNWRA ( <a href="https://www.unrwa.org/">https://www.unrwa.org/</a> )	12/07/22	0



## Appendix 5 - Data extraction sheet

<b>1. General information</b>		
<b>Report title</b>		
<b>Date form completed</b>		
<b>Publication type</b>		
<b>URL</b>		
<b>Publication date</b>		
<b>Authors</b>		
<b>Funding source</b>		
<b>Possible conflicts of interest</b>		
<b>Notes</b>		
<b>2. Study characteristics</b>		
<b>Characteristics</b>	<b>Study details</b>	<b>Location in text</b>
<b>Type of study</b>		
<b>Condition / disease focus</b> (e.g. stunting, wasting, GAM)		
<b>Notes</b>		
<b>3. Population and setting</b>		
<b>Characteristics</b>	<b>Study details</b>	<b>Location in text</b>
<b>Population description</b> (study population)		
<b>Source/setting of population</b>		
<b>Notes</b>		
<b>4. Methods</b>		
<b>Characteristics</b>	<b>Study details</b>	<b>Location in text</b>
<b>Aim of study</b>		
<b>Design</b>		
<b>Sampling methods</b>		
<b>Methods of recruitment</b>		
<b>Study start date</b>		
<b>Study end date / duration</b>		
<b>Notes</b>		
<b>5. Participants</b>		
<b>Characteristics</b>	<b>Study details</b>	<b>Location in text</b>
<b>Total number of participants</b>		
<b>Age groups</b>		
<b>Age distribution</b>		
<b>Sex distribution</b>		

<b>Exclusion criteria</b>		
<b>Notes</b>		
<b>6. Outcomes</b>		
<b>Characteristics</b>	<b>Study details</b>	<b>Location in text</b>
<b>Outcomes of interest to review</b>		
<b>Outcome definition</b>		
<b>Measures, tools or scales used</b>		
<b>Are measures/tools validated?</b> (Yes/No/Unclear/Not mentioned)		
<b>Statistical measures used</b>		
<b>Method of outcome data collection</b>		
<b>Other outcomes/variables reported and definitions, measures or tools used</b>		
<b>Notes</b>		
<b>7. Results and findings</b>		
<b>Characteristics</b>	<b>Study details</b>	<b>Location in text</b>
<b>Results by subgroup</b> (confidence intervals?)		
<b>Response rate</b>		
<b>Any other results reported</b>		
<b>Notes</b>		
<b>8. Limitations</b>		
<b>Characteristics</b>	<b>Description stated in report/paper</b>	<b>Location in text</b>
<b>Strengths</b>		
<b>Limitations</b>		
<b>Strategies to overcome limitations</b>		
<b>Notes</b>		
<b>9. Conclusions</b>		
<b>Characteristics</b>	<b>Study details</b>	<b>Location in text</b>
<b>Key conclusions of study authors</b>		
<b>Notes</b>		

<b>10. Joanna Briggs Institute critical appraisal checklist for studies reporting prevalence data</b>				
(Guidance at: <a href="https://jbi.global/sites/default/files/2019-05/JBI_Critical_Appraisal-Checklist_for_Prevalence_Studies2017_0.pdf">https://jbi.global/sites/default/files/2019-05/JBI_Critical_Appraisal-Checklist_for_Prevalence_Studies2017_0.pdf</a> )				
<b>Question</b>	<b>Yes (1)</b>	<b>No (0)</b>	<b>Unclear (0)</b>	<b>Not applicable (0)</b>
1. Was the sample frame appropriate to address the target population?				
2. Were study participants sampled in an appropriate way?				
3. Was the sample size adequate?				
4. Were the study subjects and the setting described in detail?				
5. Was the data analysis conducted with sufficient coverage of the identified sample?				
6. Were valid methods used for the identification of the condition?				
7. Was the condition measured in a standard, reliable way for all participants?				
8. Was there appropriate statistical analysis?				
9. Was the response rate adequate, and if not, was the low response rate managed appropriately?				
<b>Score /9</b>				

## Appendix 6 - Summary of study characteristics

First author, year [reference]	Country	Context	Sample size (included in review)	Age range (months)	Type of study	Outcome measures relevant to review (prevalence of)	JBI critical appraisal score (/9)
AbuKishk N, 2021 [2]	Jordan	Jerash and Souf refugee camps	367	6 to 59	Mixed methods (cross-sectional and qualitative)	Stunting	7
Ejigu B, 2017 [3]	Ethiopia	Addi Harush refugee camp	367	6 to 59	Cross-sectional	Stunting, wasting	6
El Kishawi R, 2017 [4]	Palestine	Jablia refugee camp, El Remal urban area, Al Qarara rural area	357 (217)	24 to 59	Cross-sectional	Stunting	9
Hossain S, 2016 [5]	Lebanon, Jordan, Iraq	Lebanon - refugees living in host communities in four areas; Jordan - Za'atri refugee camp and refugees living outside camps; Iraq - Domiz refugee camp	3375 (1299)	6 to 59	Cross-sectional	Acute malnutrition (by WHZ), stunting, underweight	9
Leidman E, 2018 [6]	Bangladesh	Kutupalong refugee camp	268	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting	8
Praditsorn P, 2019 [7]	Thailand-Myanmar border	Ban Mai Nai Soi, Ban Mae Surin, Mae Ra Ma Laung, Mae La Oon, Mae La, Umpiem Mai, Nu Po, Ban Don Yang, and Tham Hin refugee camps	2702	6 to 59	Cross-sectional	Stunting, wasting (by WHZ)	7
Tepa A, 2020 [8]	Cameroon	Gado-Badzere refugee camp	83	6 to 59	Cross-sectional	Stunting, wasting (by WHZ), underweight	5
Walpole S, 2018 [9]	Greece	Four refugee camps	177 (109)	0 to 59	Cross-sectional	Stunting, wasting (by WHZ), underweight	5
Mandre J, 2022 [10]	Uganda	Bidi Bidi refugee camp and host population in Romogi/Kochi sub-counties	340 (170)	6 to 59	Cross-sectional	Stunting, wasting, underweight	6
Grammatikopoulou M, 2018 [11]	Greece	Drama and Kaval refugee camps	192 (65)	12 to 59	Cross-sectional	Stunting, wasting (by WHZ), underweight	6
The Border Consortium, 2020 [12]	Thailand-Myanmar border	Ban Mai Nai Soi, Ban Mae Surin, Mae Ra Ma Laung, Mae La Oon, Mae La, Umpiem Mai, Nu Po, Ban	3780	6 to 59	Cross-sectional	Acute malnutrition (by WHZ), stunting	6

		Don Yang, and Tham Hin refugee camps					
UNHCR, 2016 [13]	Jordan	Za'atri and Azraq refugee camps and refugees living in host communities	1293 (800)	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	9
Hasib M, 2020 [14]	Bangladesh	Kutupalong refugee camp and host population in Cox's Bazar and Dumki	300 (100)	0 to 59	Cross-sectional	Stunting, wasting (by WHZ), underweight	2
Action Against Hunger, 2019 [15]	Bangladesh	Kutupalong and Nayapara refugee camps and refugees living outside camps	1114 (646)	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	9
UNHCR, 2019 [16]	Algeria	Laayoune, Awserd, Smara and Dakhla refugee camps	1945	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	9
Brhane H, 2019 [17]	Ethiopia	Adi-Harush and Hitsats refugee camps	471	6 to 59	Cross-sectional	Stunting, wasting (by WHZ), underweight	8
UNHCR, 2018 [18]	Ethiopia	Bokolmanyo, Buramino, Hiaweyn, Kobe and Melkadida refugee camps	1873	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2017 [19]	Ethiopia	Ayasita and Berhale refugee camps	1107	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2019 [20]	Kenya	Kakuma refugee camp and Kalobeyei refugee settlement	1134 (466)	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting	5
UNHCR, 2018 [21]	Kenya	Dagahaley, Ifo and Hagadera refugee camps	1650	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2015 [22]	Liberia	Bahn, PTP and Little Wlebo refugee camps	871	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2017 [23]	Malawi	Dzaleka and Luwani refugee camps and host population around camps	1466 (862)	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	9
UNHCR, 2019 [24]	Nepal	Beldangi and Sanischare refugee camps	127	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	9

UNHCR, 2019 [25]	South Sudan	Gorom refugee camp	251	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2019 [26]	South Sudan	Pamir and Ajoung Thok refugee camps	548	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2019 [27]	South Sudan	Doro, Yusuf Batil, Gendrassa and Kaya refugee camps	2393	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2020 [28]	Tanzania	Nyarugasu Old, Nyarugasu New, Nduta and Mtendeli refugee camps	2469	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	9
UNHCR, 2019 [29]	Rwanda	Gihembe, Nyabiheke, Kiziba, Kigeme, Mugombwa and Mahama refugee camps	1778	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2018 [30]	Sudan	Khor Alwaral, Um Sangour, Al Radis 1 & 2, El Kashafa, Jouri, and Alagaya & Dabat Bosin refugee camps	2075	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2017 [31]	Ethiopia	Sherkole, Bambasi, Tongo, Tsore and Gure-Shembola refugee camps	1970	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2017 [32]	Ethiopia	Shimelba, Adi-Harush, Mai-Aini and Hitsats refugee camps	1148	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2017 [33]	Ethiopia	Pugnido I, Pugnido II, Kule, Tierkidi, Jewi, Nguennyiel and Okugo refugee camps	2926	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8
UNHCR, 2018 [34]	Ethiopia	Sheder, Awbarre and Kebribeyah refugee camps	821	6 to 59	Cross-sectional	Acute malnutrition (by WHZ and MUAC), stunting, underweight	8

### References (for supplementary material)

- 1 Page MJ, McKenzie JE, Bossuyt PM, *et al.* The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *J Clin Epidemiol* 2021;**134**:178–89. doi:10.1016/J.JCLINEPI.2021.03.001/ATTACHMENT/8C73C195-8136-4850-A672-140561FA575F/MMC2.PDF
- 2 AbuKishk N, Gilbert H, Seita A, *et al.* Under-five malnutrition among Palestine refugee children living in camps in Jordan: a mixed-methods study. *BMJ Glob Health* 2021;**6**. doi:http://dx.doi.org/10.1136/bmjgh-2021-005577
- 3 Ejigu B, Legesse TG, Chercos DH. Prevalence and associated factors of malnutrition among children aged 6-59 months in Addi Harush Eritrean Refugees camp, Tigray region, North Ethiopia. *Journal of Pharmacy and Nutrition Sciences* 2017;**7**:164–71. <https://core.ac.uk/download/pdf/199938782.pdf> (accessed 23 May 2022).
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- 8 Tapa A, Abame I, Makamta V, *et al.* Nutritional status and humoral immune response to Plasmodium falciparum in children aged 6-59 months. *J Trop Med* 2020;**2020**. doi:http://dx.doi.org/10.1155/2020/1843780
- 9 Walpole SC, Abbara A, Gunst M, *et al.* Cross-sectional growth assessment of children in four refugee camps in Northern Greece. *Public Health* 2018;**162**:147–52. doi:http://dx.doi.org/10.1016/j.puhe.2018.05.004
- 10 Mandre J, Kaindi DWM, Kogi-Makau W. Nutrition Status of Refugee and Host-Country Children: Negotiating for Equal Distribution of Relief Food During Emergencies in Uganda. *J Immigr Minor Health* Published Online First: 28 March 2022. doi:10.1007/S10903-022-01354-4
- 11 Grammatikopoulou MG, Theodoridis X, Poulimeneas D, *et al.* Malnutrition surveillance among refugee children living in reception centres in Greece: a pilot study. *Int Health* 2019;**11**:30–5. doi:10.1093/INTHEALTH/IHY053
- 12 The Border Consortium. 2019 Nutrition Survey of Refugee Camps along the Thailand-Myanmar Border - Thailand | ReliefWeb. 2020.

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