

The Double Burden of Malnutrition among Women of Reproductive Age and Preschool Children in Low- and Middle-Income Countries: A Scoping Review and Thematic Analysis of Literature

Supplementary Document

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APPENDIX A: SEARCH STRATEGY

Table A.1: Search strategy and Findings in Ovid Medline Database

SEARCH TERMS					RESULTS
Population		Concept		Context	
Woman or women or female or mother or girl or wife or lady or child* or infant or under 5* or under five* or boy or baby or toddler or preschool or preschool child or neonate or newborn or kid*	AND	(Double burden or dual burden or triple burden or coexist* or simultan* or concurren* or Co-occurren*) AND (nutrition or nutrition transition or nutritional status or malnutrition)	AND	low-income countries.mp. or developing country/ or low income country/ or lowest income group or middle-income countries.mp. or middle income country or low-and middle-income countries.mp or (((((((Afghanistan or Angola or Albania or Argentina or Armenia or American Samoa or Azerbaijan or Burundi or Benin or Burkina Faso or Bangladesh or Bulgaria or Bosnia) and Herzegovina) or Belarus or Belize or Bolivia or Brazil or Bhutan or Botswana or Central African Republic or China or Cote d Ivoire or Ivory Coast or Cameroon or Congo Democratic Republic or Congo or Colombia or Comoros or Cabo Verde or Costa Rica or Cuba or Djibouti or Dominica or Dominican Republic or Algeria or Ecuador or Egypt or Eritrea or Ethiopia or Fiji or Micronesia or Gabon or Georgia or Ghana or Guinea or Gambia or Guinea-Bissau or Equatorial Guinea or Grenada or Guatemala or Guyana or Honduras or Haiti or Indonesia or India or Iran or Iraq or Jamaica or Jordan or Kazakhstan or Kenya or Kyrgyz Republic or Kyrgyzstan or Cambodia or Kiribati or Laos or Lebanon or Liberia or Libya or Saint Lucia or Sri Lanka or Lesotho or Morocco or Moldova or Madagascar or Maldives or Mexico or Marshall Islands or Macedonia or Mali or Myanmar or Montenegro or Mongolia or Mozambique or Mauritania or Malawi or Malaysia or Namibia or Niger or Nigeria or Nicaragua or Nepal or Pakistan or Peru or Philippines or Papua New Guinea or Korea or Paraguay or West Bank or Gaza or Russian Federation or Rwanda or Sudan or Senegal or Solomon Islands or Sierra Leone or El Salvador or Somalia or Serbia or South Sudan or Sao Tome) and Principe) or Suriname or Eswatini or Syrian Arab Republic or Chad or Togo or Thailand or Tajikistan or Turkmenistan or Timor-Leste or Tonga or Tunisia or Turkey or Tuvalu or Tanzania or Uganda or Ukraine or Uzbekistan or Saint Vincent) and the Grenadines) or Venezuela or Vietnam or Vanuatu or Samoa or Kosovo or Yemen or South Africa or Zambia or Zimbabwe).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	1019
		OR (Overnutrition or overweight or obesity or obese or dyslipidemia or hypertension or systolic hypertension or hyperglycemia or Metabolic syndrome or Metabolic syndrome or diabetes or diabetes mellitus) AND (stunting or stunted or short stature or undernutrition or underweight or iron deficiency anemia or anemia or inadequate micronutrient intake or micronutrient intake or malnutrition)			

Table A.2: Search strategy and Findings in Ovid Embase Database

SEARCH TERMS				RESULTS
Population		Concept	Context	
Woman or women or female or mother or girl or wife or lady or child* or infant or under 5* or under five* or boy or baby or toddler or preschool or preschool child or neonate or newborn or kid*	AND	(Double burden or dual burden or triple burden or coexist* or simultan* or concurren* or Co-occurren*) AND (nutrition or nutrition transition or nutritional status or malnutrition)	AND	
		OR		
		(Overnutrition or overweight or obesity or obese or dyslipidemia or hypertension or systolic hypertension or hyperglycemia or Metabolic syndrome or Metabolic syndrome or diabetes or diabetes mellitus) AND (stunting or stunted or short stature or undernutrition or underweight or iron deficiency anemia or anemia or inadequate micronutrient intake or micronutrient intake or malnutrition)		
			low-income countries.mp. or developing country/ or low-income country/ or lowest income group or middle-income countries.mp. or middle income country or low-and middle-income countries.mp or (((((((Afghanistan or Angola or Albania or Argentina or Armenia or American Samoa or Azerbaijan or Burundi or Benin or Burkina Faso or Bangladesh or Bulgaria or Bosnia) and Herzegovina) or Belarus or Belize or Bolivia or Brazil or Bhutan or Botswana or Central African Republic or China or Cote d Ivoire or Ivory Coast or Cameroon or Congo Democratic Republic or Congo or Colombia or Comoros or Cabo Verde or Costa Rica or Cuba or Djibouti or Dominica or Dominican Republic or Algeria or Ecuador or Egypt or Eritrea or Ethiopia or Fiji or Micronesia or Gabon or Georgia or Ghana or Guinea or Gambia or Guinea-Bissau or Equatorial Guinea or Grenada or Guatemala or Guyana or Honduras or Haiti or Indonesia or India or Iran or Iraq or Jamaica or Jordan or Kazakhstan or Kenya or Kyrgyz Republic or Kyrgyzstan or Cambodia or Kiribati or Laos or Lebanon or Liberia or Libya or Saint Lucia or Sri Lanka or Lesotho or Morocco or Moldova or Madagascar or Maldives or Mexico or Marshall Islands or Macedonia or Mali or Myanmar or Montenegro or Mongolia or Mozambique or Mauritania or Malawi or Malaysia or Namibia or Niger or Nigeria or Nicaragua or Nepal or Pakistan or Peru or Philippines or Papua New Guinea or Korea or Paraguay or West Bank or Gaza or Russian Federation or Rwanda or Sudan or Senegal or Solomon Islands or Sierra Leone or El Salvador or Somalia or Serbia or South Sudan or Sao Tome) and Principe) or Suriname or Eswatini or Syrian Arab Republic or Chad or Togo or Thailand or Tajikistan or Turkmenistan or Timor-Leste or Tonga or Tunisia or Turkey or Tuvalu or Tanzania or Uganda or Ukraine or Uzbekistan or Saint Vincent) and the Grenadines) or Venezuela or Vietnam or Vanuatu or Samoa or Kosovo or Yemen or South Africa or Zambia or Zimbabwe).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	3162

Table A.3: Search strategy and Findings in Scopus Database

SEARCH TERMS				RESULTS
Population		Concept	Context	
(((TITLE-ABS-KEY ("woman" OR "women" OR "mother" OR "girl" OR "wife" OR "lady" OR "female"))) OR ((TITLE-ABS-KEY ("Preschool Children" OR child* OR "Infant" OR "Toddler" OR "Kid" OR "Neonate" OR "newborn" OR "Baby"))))	AND	(((TITLE-ABS-KEY ("double burden" OR "dual burden" OR "triple burden" OR simultan* OR concurren* OR coocurren*)) AND (TITLE-ABS-KEY ("Malnutrition" OR "Undernutrition" OR nutrition*))))	AND	(((TITLE-ABS-KEY ("Afghanistan" OR "Angola" OR "Albania" OR "Argentina" OR "Armenia" OR "American Samoa" OR "Azerbaijan" OR "Burundi" OR "Benin" OR "Burkina Faso" OR "Bangladesh" OR "Bulgaria" OR "Bosnia and Herzegovina" OR "Belarus" OR "Belize" OR "Bolivia" OR "Brazil" OR "Bhutan" OR "Botswana" OR "Central African Republic" OR "China" OR "Cote d'Ivoire" OR "Ivory Coast" OR "Cameroon" OR "Congo Democratic Republic" OR "Congo" OR "Colombia" OR "Comoros" OR "Cape Verde" OR "Costa Rica" OR "Cuba" OR "Djibouti" OR "Dominica" OR "Dominican Republic" OR "Algeria" OR "Ecuador" OR "Egypt" OR "Eritrea" OR "Ethiopia" OR "Fiji" OR "Micronesia" OR "Gabon" OR "Georgia" OR "Ghana" OR "Guinea" OR "Gambia" OR "Guinea-Bissau" OR "Equatorial Guinea" OR "Grenada" OR "Guatemala" OR "Guyana" OR "Honduras" OR "Haiti" OR "Indonesia" OR "India" OR "Iran" OR "Iraq" OR "Jamaica" OR "Jordan" OR "Kazakhstan" OR "Kenya" OR "Kyrgyz Republic" OR "Kyrgyzstan" OR "Cambodia" OR "Kiribati" OR "Laos" OR "Lebanon" OR "Liberia" OR "Libya" OR "Saint Lucia")))
		OR		

		((TITLE-ABS-KEY ("overweight" OR "obesity" OR "obese" OR "Dyslipidemia" OR "Hypertension" OR "Hyperglycemia" OR "Metabolic syndrome")) AND (TITLE-ABS-EY (micronutrient* OR anemia* OR "stunting" OR "stunted" OR "Underweight" OR "Undernutrition" OR "Thinness" OR "Wasting")))	OR "Sri Lanka" OR "Lesotho" OR "Morocco" OR "Moldova" OR "Madagascar" OR "Maldives" OR "Mexico" OR "Marshall Islands" OR "Macedonia" OR "Mali" OR "Myanmar" OR "Montenegro" OR "Mongolia" OR "Mozambique" OR "Mauritania" OR "Malawi" OR "Malaysia" or "Namibia" or "Niger" or "Nigeria" or "Nicaragua" OR "Nepal" OR "Pakistan" OR "Peru" OR "Philippines" OR "Papua New Guinea" OR "Korea" OR "Paraguay" OR "West Bank" OR "Gaza" OR "Russian Federation" OR "Rwanda" OR "Sudan" OR "Senegal" OR "Solomon Islands" OR "Sierra Leone" OR "El Salvador" OR "Somalia" OR "Serbia" OR "South Sudan" OR "Sao Tome and Principe" OR "Suriname" OR "Eswatini" OR "Syrian Arab Republic" OR "Chad" OR "Togo" OR "Thailand" OR "Tajikistan" OR "Turkmenistan" OR "Timor-Leste" OR "Tonga" OR "Tunisia" OR "Turkey" OR "Tuvalu" OR "Tanzania" OR "Uganda" OR "Ukraine" OR "Uzbekistan" OR "Saint Vincent and the Grenadines" OR "Venezuela" OR "Vietnam" OR "Vanuatu" OR "Samoa" OR "Kosovo" OR "Yemen" OR "South Africa" OR "Zambia" OR "Zimbabwe"))	10, 527
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Table A.4: Search strategy and Findings in CINHAL Database

SEARCH TERMS					RESULTS
Population		Concept		Context	
"Woman OR women OR mother OR girl OR wife OR lady OR female OR Preschool Children OR child* OR Infant OR Toddler OR Kid OR Neonate OR newborn OR Baby"	AND	("double burden OR dual burden OR triple burden OR simultan* OR concurren* OR coocurren* AND Malnutrition OR Undernutrition OR nutrition*"	AND	"Afghanistan OR Angola OR Albania OR Argentina OR Armenia OR American Samoa OR Azerbaijan OR Burundi OR Benin OR Burkina Faso OR Bangladesh OR Bulgaria OR Bosnia and Herzegovina OR Belarus OR Belize OR Bolivia OR Brazil OR Bhutan OR Botswana OR Central African Republic OR China OR Cote d'Ivoire OR Ivory Coast OR Cameroon OR Congo Democratic Republic OR Congo OR Colombia OR Comoros OR Cape Verde OR Costa Rica OR Cuba OR Djibouti OR Dominica OR Dominican Republic OR Algeria OR Ecuador OR Egypt OR Eritrea OR Ethiopia OR Fiji OR Micronesia OR Gabon OR Georgia OR Ghana OR Guinea OR Gambia OR Guinea-Bissau OR Equatorial Guinea OR Grenada OR Guatemala OR Guyana OR Honduras OR Haiti OR Indonesia OR India OR Iran OR Iraq OR Jamaica OR Jordan OR Kazakhstan OR Kenya OR Kyrgyz Republic OR Kyrgyzstan OR Cambodia OR Kiribati OR Laos OR Lebanon OR Liberia OR Libya OR Saint Lucia OR Sri Lanka OR Lesotho OR Morocco OR Moldova OR Madagascar OR Maldives OR Mexico OR Marshall Islands OR Macedonia OR Mali OR Myanmar OR Montenegro OR Mongolia OR Mozambique OR Mauritania OR Malawi OR Malaysia OR Namibia OR Niger OR Nigeria OR Nicaragua OR Nepal OR Pakistan OR Peru OR Philippines OR Papua New Guinea OR Korea OR Paraguay OR West Bank OR Gaza OR Russian Federation OR Rwanda OR Sudan OR Senegal OR Solomon Islands OR Sierra Leone OR El Salvador OR Somalia OR Serbia OR South Sudan OR Sao Tome and Principe OR Suriname OR Eswatini OR Syrian Arab Republic OR Chad OR Togo OR Thailand OR Tajikistan OR Turkmenistan OR Timor-Leste OR Tonga OR Tunisia OR Turkey OR Tuvalu OR Tanzania OR Uganda OR Ukraine OR Uzbekistan OR Saint Vincent and the Grenadines OR Venezuela OR Vietnam OR Vanuatu OR Samoa OR Kosovo OR Yemen OR South Africa OR Zambia OR Zimbabwe"	426
		OR			
		("Overweight OR obesity OR obese OR Dyslipidemia OR Hypertension OR Hyperglycemia OR Metabolic syndrome) AND (micro nutrient* OR anemia* OR stunting OR stunted OR Underweight OR Undernutrition OR Thinness OR Wasting"))			

Table A.5: Search strategy and Findings in ProQuest Global Database

SEARCH TERMS				RESULTS	
Population		Concept	Context		
noft(woman OR women OR mother OR girl OR wife OR lady OR female OR mother OR child OR infant OR child OR infant OR "under five" OR "under 5" OR girl OR boy OR baby OR toddler OR preschool OR neonate OR newborn OR kid)	AND	(((noft("Double Burden" OR "Dual Burden" OR "Triple Burden" OR "simultaneous" OR "Co-occurrence" OR "Co-existing" OR "Concurrent") AND noft(Nutrition OR Malnutrition OR "Nutrition Transition" OR "Nutritional status"))) OR (noft(Overweight OR Overnutrition OR Obese OR Obesity OR Dyslipidemia OR Hypertension OR Hyperglycemia OR "Metabolic syndrome") AND noft(Stunting OR Stunted OR Undernutrition OR underweight OR Thinness OR Wasting OR "Micronutrient deficiency" OR Anemia OR "Iron deficiency anemia" OR "Inadequate micronutrient intake" OR Malnutrition)))	AND	noft("low-income countries" OR "middle-income countries" OR "middle-income countries" OR "low-and middle-income countries" OR "developing countries" OR Afghanistan OR Angola OR Albania OR Argentina OR Armenia OR American Samoa OR Azerbaijan OR Burundi OR Benin OR Burkina Faso OR Bangladesh OR Bulgaria OR "Bosnia and Herzegovina" OR Belarus OR Belize OR Bolivia OR Brazil OR Bhutan OR Botswana OR "Central African Republic" OR China OR "Cote d'Ivoire" OR "Ivory Coast" OR Cameroon OR "Congo Democratic Republic" OR Congo OR Colombia OR Comoros OR "cabs Verde" OR "Costa Rica" OR Cuba OR Djibouti OR Dominica OR "Dominican Republic" OR Algeria OR Ecuador OR Egypt OR Eritrea OR Ethiopia OR Fiji OR Micronesia OR Gabon OR Georgia OR Ghana OR guineas OR Gambia OR "guineas-Bissau" OR "Equatorial guineas" OR Grenada OR Guatemala OR Guyana OR Honduras OR Haiti OR Indonesia OR India OR Iran OR Iraq OR Jamaica OR Jordan OR Kazakhstan OR Kenya OR "Kyrgyz Republic" OR Kyrgyzstan OR Cambodia OR Kiribati OR Laos OR Lebanon OR Liberia OR Libya OR "Saint Lucia" OR "Sri Lanka" OR Lesotho OR Morocco OR Moldova OR Madagascar OR Maldives OR Mexico OR "Marshall Islands" OR Macedonia OR Mali OR Myanmar OR Montenegro OR Mongolia OR Mozambique OR Mauritania OR Malawi OR Malaysia OR Namibia OR Niger OR Nigeria OR Nicaragua OR Nepal OR Pakistan OR Peru OR Philippines OR "Papua New guineas" OR Korea OR Paraguay OR "West Bank" OR Gaza OR "Russian Federation" OR Rwanda OR Sudan OR Senegal OR "Solomon Islands" OR "Sierra Leone" OR "El Salvador" OR Somalia OR Serbia OR "South Sudan" OR "Sao Tome and Principe" OR "Suriname" OR Eswatini OR "Syrian Arab Republic" OR Chad OR Togo OR Thailand OR Tajikistan OR Turkmenistan OR "Timor-lester" OR Tonga OR Tunisia OR Turkey OR Tuvalu OR Tanzania OR Uganda OR Ukraine OR Uzbekistan OR "Saint Vincent and the Grenadines" OR Venezuela OR Vietnam OR Vanuatu OR Samoa OR Kosovo OR Yemen OR "South Africa" OR Zambia OR Zimbabwe)	281

APPENDIX B: BIBLIOGRAPHIES

Table B.1: General Characteristics of Studies included in this Scoping Review (n=720)

Year	Author	Article Title	Target Population	Level of DBM Assessment	Country
2007	Asfaw	Micronutrient deficiency and the prevalence of mothers' overweight/obesity in Egypt	Preschool children (≤ 5 years) and their mothers (≥ 17 years)	Household/ Individual	Egypt
2015	Abbade et al.	Facing co-occurrence of underweight and overweight populations worldwide	Preschool children (≤ 5 years) and Adults (≥ 20 years)	Population	Multicountry
2021	Abou-Rizk et al.	Anemia and Nutritional Status of Syrian Refugee Mothers and Their Children under Five Years in Greater Beirut, Lebanon	Preschool children (≤ 5 years) and Women (15 to 49 years)	Individual	Lebanon
2012	Aboussaleh et al.	Anemia and obesity coexist among women of reproductive age in north west of Morocco	Women (26 to 36 years)	Individual	Morocco
2015	Abubakari et al.	Prevalence of abnormal birth weight and related factors in Northern region, Ghana	Newborn	Population	Ghana
2017	Acar Tek et al.	The prevalence of abdominal obesity is remarkable for underweight and normal weight adolescent girls.	Women (12 to 18 years)	Population	Turkey
2020	Acharya	Nutrition transition and SES as a fundamental cause: An integrative approach to examine weight status among women in Nepal	Women (15 to 49 years)	Population	Nepal
2020	Acharya et al.	Deforestation and Household- and Individual-Level Double Burden of Malnutrition in Sub-saharan Africa	Preschool children (≤ 5 years) and Women (15 to 49 years)	Household/ Individual	15 SSA countries
2008	Ackerson et al.	Geography of underweight and overweight among women in India: A multilevel analysis of 3204 neighborhoods in 26 states	Women (15 to 49 years)	Population	India
2008	Adel et al.	Nutritional Status of Under-Five Children In Libya; A National Population-Based Survey	Preschool children (≤ 5 years)	Individual	Libya
2022	Adeomi et al.	Food Security, Dietary Diversity, Dietary Patterns and the Double Burden of Malnutrition among School-Aged Children and Adolescents in Two Nigerian States	Children (6 to 19 years)	Population	Nigeria
2021	Adeomi et al.	Double burden of malnutrition among school-aged children and adolescents: evidence from a community-based cross-sectional survey in two Nigerian States	Children (6 to 19 years)	Population/ Individual	Nigeria

2011	Aderibigbe et al.	Iron status and cardiovascular disease risk in black South African women: the PURE study	Adults (≥ 35 years)	Individual	South Africa
2011	Aderibigbe et al.	The relationship between indices of iron status and selected anthropometric cardiovascular disease risk markers in an African population: the THUSA study	Adults (≥ 15 years)	Individual	South Africa
2014	Aderibigbe et al.	The Relationship Between Iron Status and Adiposity in Women from Developing Countries: A Review	Women	Individual	Developing countries
2021	Afolabi & Palamuleni.	Multilevel analysis of unhealthy bodyweight among women in Malawi: Does urbanisation matter?	Women (15 to 49 years)	Population	Malawi
2012	Agrawal & Negi.	Double Burden of Nutrition among Women in Hilly States in India	Women (15 to 49 years)	Population	India
2021	Ahinkorah et al.	Prevalence and Factors Associated with the Triple Burden of Malnutrition among Mother-Child Pairs in Sub-Saharan Africa	Preschool children (≤ 5 years) and Women (15 to 49 years)	Household	32 SSA countries
2018	Ahmad et al.	Double burden of malnutrition among school-going adolescent girls in North India: A cross-sectional study	Women (10 to 19 years)	Population	India
2020	Ahmed et al.	Factors associated with underweight, overweight, and obesity in reproductive age Tanzanian women	Women (15 to 49 years)	Population	Tanzania
2020	Ahmed	Trends and determinants of underweight and overweight/obesity among urban Ethiopian women from 2000 to 2016	Women (15 to 49 years)	Population	Ethiopia
2009	Aitsi-Selmi et al.	Addressing the double burden of malnutrition in Egypt: Do conditional cash transfers have a role?	Mother and child	Household	Egypt
2021	Akanda et al.	Determinants of Malnutrition Among Ever-married Women in Bangladesh	Women (35 to 49 years)	Population	Bangladesh
2019	Akombi et al.	Estimating the Double Burden of Malnutrition among 595,975 Children in 65 Low- and Middle-Income Countries: A Meta-Analysis of Demographic and Health Surveys	Preschool children (≤ 5 years)	population	65 LMIC countries
2019	Al Kibria et al.	Prevalence and factors associated with underweight, overweight and obesity among women of reproductive age in India	Women (15 to 49 years)	Population	India
2020	Alamu et al.	Double Burden of Malnutrition: Evidence from a Selected Nigerian Population	Preschool children (≤ 5 years) and their mothers	Household	Nigeria
2019	Alaofe & Asaolu	Maternal and Child Nutrition Status in Rural Communities of Kalal'e District, Benin: The Relationship and Risk Factors	Preschool children (≤ 5 years) and Women (15 to 49 years)	Population/ Household	Benin
2013	Ali	Double fardeau de la malnutrition dans le Sud-Est de Casablanca et rôle de l'éducation nutritionnelle dans la prise en charge de la surcharge pondérale	Preschool children (≤ 5 years) and Women (≥ 18 years)	Individual/ Household	Morocco

2020	Ali et al.	Transition nutritionnelle, prévalence de la double charge de la malnutrition et facteurs de risque cardiovasculaires chez les adultes de l'île comorienne d'Anjouan	Adults (25 to 64 years)	Population	Comoros
2016	Alonzo	Relación entre doble carga nutricional y consumo aparente de alimentos en la cabecera municipal de Jocotán, Chiquimula	Preschool children (1 to 5 years) and Women (20 to 54 years)	Household	Guatemala
2015	Amina Aitsi-Selmi	Households with a Stunted Child and Obese Mother: Trends and Child Feeding Practices in a Middle-Income Country, 1992–2008	Preschool children (≤ 5 years) and Women (15 to 49 years)	Household	Egypt
2019	Amoo	The Double Burden of Malnutrition Across the Life course	-	Individual (Life course)	Developing countries
2019	Amugsi et al.	Correlates of the double burden of malnutrition among women: An analysis of cross sectional survey data from sub-Saharan Africa	Women (15 to 49 years)	Population	Ghana, Kenya, DR Congo, Nigeria, and Mozambique
2003	Angeles-Agdeppa et al.	A case study on dual forms of malnutrition among selected households in District 1, Tondo, Manila	Children (33 to 83 months) and their mothers	Household	Philippines
2019	Angeles-Agdeppa et al.	Existence of double burden of malnutrition among Filipino children in the same age-groups and comparison of their usual nutrient intake	Children (3 to 12 years)	Population/ Individual	Philippines
2003	Angeles-Agdeppa et al.	The Co-existence of Dual Forms of Malnutrition in Selected Filipino Families in an Urban-rich Community	Children (2 to 6 years) and their mothers	Household	Philippines
2014	Ani et al.	Prevalence of overweight, obesity and thinness among adolescents in rural and urban areas of Enugu State, Nigeria	Adolescents (10 to 19 years)	Population	Nigeria
2019	Anik et al.	Double burden of malnutrition at household level: A comparative study among Bangladesh, Nepal, Pakistan, and Myanmar	Preschool children (≤ 5 years) and Women (15 to 49 years)	Household	Bangladesh, Nepal, Pakistan, and Myanmar
2017	Anikene	Prevalence of undernutrition, overnutrition and associated factors among under-fives attending pre-primary schools in Enugu north local government area of Enugu state, Nigeria	Preschool children (1 to 5 years)	Population	Nigeria
2018	Kukka	Prevalence of Double Burden of Malnutrition among Indian Pre-School Children: An Analysis of Cross-Sectional DLHS-4 Data from 23 States	Preschool children (≤ 5 years)	Population Household/ Individual	India
2014	Apaza-Romero et al.	Sobrepeso, obesidad y la coexistencia de desnutrición crónica en niños menores de 5 años	Preschool children (1 to 5 years)	Individual	Peru

2018	Arriola	Prevalencia de doble carga nutricional en hogares de la aldea La Primavera, municipio de San Pedro Jocopilas, departamento de Quiché	Preschool children (≤ 5 years) and their mothers	Household	Guatemala
2015	Abdullah	The Double Burden of Undernutrition and Overnutrition in Developing Countries: An Update	Preschool children and Adults (>20 years).	Individual/ Household/ Population	100 countries
2015	Assi	The double burden of malnutrition in under-5-year-old children in Arab countries: an analysis of prevalence and predictors	Preschool children (≤ 5 years)	Individual	Jordan, Iraq, Palestine, Sudan, Egypt, Algeria, Syria, Morocco
2009	Atmarita et al.	The emergence of combined stunting and obesity as a nutritional threat to child development in Indonesia	Preschool children (≤ 5 years)	Individual	Indonesia
2017	Atsu et al.	Determinants of overweight with concurrent stunting among Ghanaian children	Preschool children (≤ 5 years)	Individual	Ghana
2015	Audain et al.	A Comparative Analysis of Nutritional Status in Adolescents from an Urban Versus a Peri-urban School in Kwazulu-Natal, South Africa	Adults (14 to 21 years)	Population/ Individual	South Africa
2014	Averett et al.	Decomposing race and gender differences in underweight and obesity in South Africa	adults (20 to 65 years)	Population	South Africa
2015	Averret & Wang	The Double Burden of Malnutrition	Preschool children (≤ 5 years) and Adults	Population/ Household/ Individual	Developing Countries
2021	Azomahou et al.	Transition and persistence in the double burden of malnutrition and obesity: Evidence from South Africa	Adults and children age	Household	South Africa
2020	Azupogo et al.	Malnutrition, Hypertension Risk, and Correlates: An Analysis of the 2014 Ghana Demographic and Health Survey Data for 15–19 Years Adolescent Boys and Girls	Adolescents (15 to 19 years)	Population	Ghana
2021	Azupogo et al.	Trends and factors associated with the nutritional status of adolescent girls in Ghana: a secondary analysis of the 2003–2014 Ghana demographic and health survey (GDHS) data	Adolescents (15 to 19 years)	Population	Ghana
2011	Bagni et al.	Overweight is associated with low hemoglobin levels in adolescent girls	Adolescents (11 to 20 years)	Individual	Brazil
2015	Bahreynian et al.	Prevalence of Growth Disorders in a Nationally Representative Sample of Iranian Adolescents According to Socioeconomic Status: The CASPIAN-III Study	Adolescents (10 to 18 years)	Population	Iran

2018	Bamisaye & Adepaju	Association between stunting and obesity among under five children in urban and rural areas of Oyo State, Nigeria	Preschool children (≤ 5 years)	Individual	Nigeria
2020	Barazzoni & Cappellari	Double burden of malnutrition in persons with obesity	Not Specified	Individual	-
2011	Barnett	Is the Dual Burden of Over- and Under-nutrition a Concern for Poor Households in Ethiopia, India, Peru, and Vietnam?	Children (4.5 to 5.5 years) and their mothers	Household	Ethiopia, India, Peru, and Vietnam
2016	Barquera et al.	Cardiovascular diseases in mega-countries: The challenges of the nutrition, physical activity and epidemiologic transitions, and the double burden of disease	Preschool children (≤ 5 years) and Adults	Population	11 Countries (9 LMICs)
2007	Barquera et al.	Coexistence of maternal central adiposity and child stunting in Mexico	Preschool children (≤ 5 years) and Women (12 to 49 years)	Household	Mexico
2019	Barquera et al.	The Double Burden of Malnutrition in Latin America	All	Population/ Household/ Individual	Latin America countries
2018	Barrera-Dussán et al.	Prevalencia y determinantes sociales de malnutrición en menores de 5 años afiliados al Sistema de Selección de Beneficiarios para Programas Sociales (SISBEN) del área urbana del municipio de Palermo en Colombia, 2017	Preschool children (≤ 5 years)	Population	Colombia
2020	Barrientos et al.	Doble carga nutricional en niños de 0-5 años	Preschool children (≤ 5 years)	Population	Mexico
2019	Barrios et al.	Height Trajectory During Early Childhood Is Inversely Associated with Fat Mass in Later Childhood in Mexican Boys	Infant children followed up to their 8 to 10 birthdays	Individual (Life course)	Mexico
2020	Barth-Jaeggi et al.	Nutritional status of Tajik children and women: Transition towards a double burden of malnutrition	Preschool children (5 to 59 months) and Women (15 to 49 years)	Household/ Individual	Tajikistan
2014	Bassett et al.	Prevalence and determinants of the dual burden of malnutrition at the household level in Puna and Quebrada of Humahuaca, Jujuy, Argentina	Children or adolescent (2 to 18 years old) and their mothers	Household	Argentina
2020	Batis et al.	Malnutrition prevalence among children and women of reproductive age in Mexico by wealth, education level, urban/rural area and indigenous ethnicity	Preschool children (< 5 years) and women (11 to 49 years)	Population	Mexico
2014	Belahsen	Nutrition transition and food sustainability	All age groups	Population	LMIC

2020	Benedict et al.	Double burden of malnutrition and its association with infant and young child feeding practices among children under-five in Thailand	Preschool children (<5 years)	Population/ Individual	Thailand
2018	Benzekri et al.	HIV and the dual burden of malnutrition in Senegal, 1994–2012	Adults (18 to 84 years)	Population	Senegal
2017	Berbada et al.	Magnitude of double burden of malnutrition and its associated factors among selected in-school adolescents: Evidence from South Ethiopia	Adolescents (14 to 19 years)	Population	Ethiopia
2017	Van den Berg & Van Kooten	Overweight Mothers with Stunted Children: A Nutrition Paradox	Preschool children (≤ 5 years) and their mothers	Household	17 LMIC Countries
2020	Berhane et al.	Social Stratification, Diet Diversity and Malnutrition among Preschoolers: A Survey of Addis Ababa, Ethiopia	Preschool children (≤ 5 years)	Population	Ethiopia
2020	Bernal et al.	Representación geográfica de la malnutrición en niños y adolescentes de Medellín, Colombia	Children (0 to 17 years)	Population	Colombia
2021	Bhandari et al.	Double burden of underweight and overweight among Indian adults: spatial patterns and social determinants	Adults (15 to 54 years)	Population	India
2020	Bhandari et al.	Prevalence of Undernutrition, Obesity and Hypertension among Adult Shabars and Mahalis of Bankura District of West Bengal, India	Adult (>18 year)	Population	India
2013	Bharati	Dual burden of malnutrition among Indian women: A comparative analysis between NFHS-3 and NFHS-2	Women (15 to 49 years)	Population	India
2019	Bharati et al.	Malnutrition and anaemia among adult women in India	Women (15 to 49 years)	Population	India
2020	Bhargava et al.	Nutritional status of Indian adolescents (15-19 years) from National Family Health Surveys 3 and 4: Revised estimates using WHO 2007 Growth reference	adolescents (15 to 19 years old)	Population	India
2019	Bhattarai & Bhusal	Prevalence and associated factors of malnutrition among school going adolescents of Dang district, Nepal	Adolescents (14 to 17 years)	Population	Nepal
2016	Bishwajit	Nutrition transition in South Asia: the emergence of non-communicable chronic diseases	Preschool children (<5 years) and women (15 to 49 years)	Population	Bangladesh, India, Nepal, Pakistan, and Sri Lanka
2019	Biswas et al.	Current Progress and Future Directions in the Double Burden of Malnutrition among Women in South and Southeast Asian Countries	Women (15 to 49 years)	Population	South and Southeast Asian Countries (8 countries)

2019	Biswas et al.	Double Burden of Underweight and Overweight among Women in South and Southeast Asia: A Systematic Review and Meta-analysis.	Women (≥ 15 years)	Population	South and Southeast Asian Countries
2019	Biswas et al.	Double burden of underweight and overweight among women of reproductive age in Bangladesh	Women (15 to 49 years)	Population	Bangladesh
2021	Biswas et al.	Patterns and determinants of the double burden of malnutrition at the household level in South and Southeast Asia	Preschool children (< 5 years) and women (15 to 49 years)	Household	Bangladesh, India, Nepal, Pakistan, Myanmar, Timor, Maldives, and Cambodia.
2017	Biswas et al.	The prevalence of underweight, overweight and obesity in Bangladeshi adults: Data from a national survey	Adults (≥ 35 years)	Population	Bangladesh
2014	López de Blanco et al.	La doble carga de desnutrición y obesidad en Venezuela	Children and Adults (≥ 7 years)	Population	Venezuela
2019	Blankenship et al.	High double burden of child stunting and maternal overweight in the Republic of the Marshall Islands	Preschool children (< 5 years) and women (15 to 49 years)	Household	Republic of the Marshall Islands
2020	Blankenship et al.	Triple trouble: Understanding the burden of child undernutrition, micronutrient deficiencies, and overweight in East Asia and the Pacific	Preschool children (< 5 years) and women (15 to 49 years)	Population/ Household	East Asia and the Pacific
2021	Bliznashka et al.	Household-level double burden of malnutrition in Ethiopia: a comparison of Addis Ababa and the rural district of Kersa	Preschool children (< 5 years) and Adults (≥ 18 years)	Household / Individual	Ethiopia
2017	Adegbeniga et al.	Pattern of Underweight and Overweight in Lagos Southwest Nigeria	Adults (18 to 88 years)	Population	Nigeria
2021	Bose	Household Levels of Double Burden of Malnutrition in Low–Middle-income Countries: A Review	Preschool children (< 5 years) and women (15 to 49 years)	Household	LMIC
2015	Bosu	An overview of the nutrition transition in West Africa: implications for non-communicable diseases	women and children	Population / Household/ Individual	West African countries
2005	Bouzitou et al.	Malnutrition infantile et surpoids maternel dans des ménages urbains pauvres au Bénin	Children (< 12 years) and their mothers	Household	Benin

2015	Budge	Maternal perceptions of child weight and height and the double burden of malnutrition: Young Lives, Peru	Children (<10 years)	Individual (Life course)	Peru
2014	Bukli & Roshi	Nutritional transition in Albania among children 0-59 months	Preschool children (<5 years)	Population	Albania
2014	Bulbul & Hoque	Prevalence of childhood obesity and overweight in Bangladesh: findings from a countrywide epidemiological study	Children (6 to 15 years)	Population	Bangladesh
2010	Bustillo	Doble carga de malnutrición en habitantes de hogares urbanos en el municipio de Santo Domingo, Chontales, durante el 2008.	General population	Household	Nicaragua
2005	Caballero	A Nutrition Paradox — Underweight and Obesity in Developing Countries	General population	Population/ Household	Developing countries
2018	Caleyachetty	Malnutrition among Adolescents in Low- and Middle-income Countries	Adolescents (12 to 15 years)	Individual	LMICs
2019	Canella et al.	Malnutrition in all its forms and social inequalities in Brazil	Preschool children (<5 years), Adolescents (11 to 19 years) and Adults (20 to 49 years)	Population	Brazil
2019	Catalán	Relacion entre la doble carga nutricional y los determinantes sociales en una fundacion de Palmar de Varela, Atlantico	Preschool children (<5 years) and their mothers	Household	Colombia
2020	Cediel et al.	Association of all forms of malnutrition and socioeconomic status, educational level and ethnicity in Colombian children and non-pregnant women	Preschool children (<5 years) and women (11 to 49 years)	Population	Colombia
2016	Cediel-Giraldo et al.	Doble carga de malnutrición durante el crecimiento: ¿una realidad latente en Colombia?	Preschool children (<5 years)	Population/ Individual	Colombia
2011	Cepeda Lopez et al.	Sharply higher rates of iron deficiency in obese Mexican women and children are predicted by obesity-related inflammation rather than by differences in dietary iron intake	children (5 to 12 years) and women (18 to 50 years)	Individual	Mexico
2010	Cepeda-Lopez et al.	Does Obesity Increase Risk for Iron Deficiency? A Review of the Literature and the Potential Mechanisms	General population	Individual	LMICs
2013	Cesani et al.	A Comparative Study on Nutritional Status and Body Composition of Urban and Rural Schoolchildren from Brandsen District (Argentina)	Children (3 to 14 years)	Individual	Argentina
2022	Chakraborty et al.	Prevalence and factors associated with underweight, overweight and obesity among 15-49-year-old men and women in Timor-Leste	Women (15 to 49 years)	Population	Timor-Leste
2012	Chaparro & Estrada	Mapping the nutrition transition in Peru: evidence for decentralized nutrition policies	Preschool children (<5 years) and women (15 to 49 years)	Population	Peru

2016	Chen et al.	Prevalence of grade 1, 2 and 3 thinness is associated with lower socio-economic status in children in Shanghai, China	Children (3 to 12 years)	Population	China
2007	Chhabra & Chhabra	Distribution and Determinants of Body Mass Index of Non-smoking Adults in Delhi, India	Adults (≥ 18 years)	Population	India
2018	Chigbu et al.	Prevalence and sociodemographic determinants of adult obesity: a large representative household survey in a resource-constrained African setting with double burden of undernutrition and overnutrition	Adults (20 to 60 years)	Population	Nigeria
2015	Choma et al.	Conflicting effects of BMI and waist circumference on iron status	Adults (≥ 30 years)	Individual	South Africa
2014	Chomtho	Breastfeeding to prevent double burden of malnutrition	Preschool children (< 5 years)	Population/ Individual	Thailand
2020	Chowdhury et al.	Nutritional Status and Lifestyle of the Oraon Scheduled Tribe Population of North 24 Parganas, West Bengal, India	Adults (≥ 18 years)	Population	India
2017	Choy et al.	Child, maternal and household-level correlates of nutritional status: a cross-sectional study among young Samoan children	Preschool children (24 to 59 months)	Individual	Samoa
2021	Christian & Dake	Profiling household double and triple burden of malnutrition in sub-Saharan Africa: prevalence and influencing household factors	Preschool children (< 5 years) and women (15 to 49 years)	Household	SSA countries
2020	Chu et al.	Nutritional status and associated factors in children aged 15-17 years in a suburb in Vietnam	Adolescents (15 to 17 years)	Population	Vietnam
2021	Ciptanurani & Chen	Household structure and concurrent stunting and overweight among young children in Indonesia	Preschool children (2 to 5 years)	Individual	Indonesia
2013	Cobayashi et al.	Factors associated with stunting and overweight in Amazonian children: a population-based, cross-sectional study	Children (< 10 years)	Individual	Brazil
2020	Colecraft et al.	Nutrition Transition and the Triple Burden of Malnutrition in Sub-Saharan Africa: Status, Determinants and Economic Welfare Costs	Preschool children (< 5 years) and women (15 to 49 years)	Population	SSA Region
2018	Comba et al.	Nutritional status and related factors of schoolchildren in Çorum, Turkey	Children (5 to 17 years)	Population	Turkey
2014	Conde & Monteiro	Nutrition transition and double burden of undernutrition and excess of weight in Brazil	Preschool children (< 5 years) and their mothers	Population/ Household/ Individual	Brazil
2017	Conklin et al.	Economic policy and the double burden of malnutrition: cross-national longitudinal analysis of minimum wage and women's underweight and obesity	Women (13 to 49 years)	Population	24 LMICs
2011	Corsi et al.	Global Burden of Double Malnutrition: Has Anyone Seen It?	Women (20 to 49 years)	Population	57 LMICs

2011	Corsi et al.	Socioeconomic and Geographic Patterning of Under- and Overnutrition among Women in Bangladesh	Women (15 to 49 years)	Population	Bangladesh
2017	Corvalán et al.	Nutrition status of children in Latin America	Preschool children (<5 years) and their mothers	Household /Individual	Latin America
2015	Cossio-Bolaños et al.	Physical Growth, Biological Age, and Nutritional Transitions of Adolescents Living at Moderate Altitudes in Peru	Adolescents (12 to 18 years)	Population	Peru
2018	Crivelli et al.	Are overweight and obesity in children risk factors for anemia in early childhood? Results from a national nutrition survey in Tajikistan	Preschool children (25 to 60 months)	Individual	Tajikistan
2011	Crush et al.	Rapid Urbanization and the Nutrition Transition in Southern Africa	Preschool children (<5 years) and Adults (≥15 years)	Population	Southern Africa Region
2019	Curi-Quinto et al.	Malnutrition in all its forms and socio-economic disparities in children under 5 years of age and women of reproductive age in Peru	Preschool children (<5 years) and women (20 to 49 years)	Population	Peru
2009	Custodio et al.	The economic and nutrition transition in Equatorial Guinea coincided with a double burden of over- and under nutrition	Preschool children (<5 years)	Population /Individual	Equatorial Guinea
2020	Daga et al.	Double burden of malnutrition among Indian schoolchildren and its measurement: a cross- sectional study in a single school	Children (3 to 12 years)	Population	India
2017	Dang & Meenakshi	The nutrition transition and the intra-household double burden of malnutrition in India	Women (≥18 years)	Household	India
2020	Darling et al.	Double burden of malnutrition among adolescents in rural West Bengal, India	Adolescents (10 to 19 years)	Population	India
2020	Darling et al.	Gender differences in nutritional status, diet and physical activity among adolescents in eight countries in sub-Saharan Africa	Adolescents (10 to 19 years)	Population	Burkina Faso, Ethiopia, Ghana, Nigeria, Tanzania, and Uganda
2019	Das et al.	Prevalence and sociodemographic determinants of household level double burden of malnutrition in Bangladesh	Preschool children (<5 years) and women (20 to 49 years)	Household	Bangladesh
2019	Dasi et al.	Animal source foods for the alleviation of double burden of malnutrition in countries undergoing nutrition transition	Not specified	Individual (Life course)	Developing countries
2020	Davis et al.	The Double Burden of Malnutrition: A Systematic Review of Operational Definitions	General Population	Population/ household/ Individual	Global

2021	de Juras et al.	The Double Burden of Malnutrition at the Individual Level Among Adults: A Nationwide Survey in the Philippines	Women (≥20 years)	Individual	Philippines
2013	Delisle	At-Risk Serum Cholesterol Profile at Both Ends of the Nutrition Spectrum in West African Adults? The Benin Study	Adults (25 to 60 years)	Individual	Benin
2018	Delisle	Double Burden of Malnutrition at the Individual Level	Not specified	Individual	LMIC
2008	Delisle	Poverty: The Double Burden of Malnutrition in Mothers and the Intergenerational Impact	Mothers	Population/ household/ Individual	Developing countries
2018	Demaio	Addressing the Double Burden of Malnutrition as both Crisis and Opportunity	Preschool children (<5 years) and Adults	Population	Developing countries
2017	Dembélé	Coexistence du surpoids ou obésité et retard de croissance dans les ménages du Sud-ouest Bénin	Preschool children (<5 years) and women (15 to 49 years)	Household	Benin
2017	Dewan	Trends in the distribution of body mass index among women aged 20-60 years	Women (20 to 60 years)	Population	India
2020	Diana & Tanziha	Double-Duty Actions to Reduce the Double Burden of Malnutrition in Indonesia	Preschool children (<5 years) and Adults (≥15 years)	Population	Indonesia
2012	Dieffenbach & Stein	Stunted Child/Overweight Mother Pairs Represent a Statistical Artifact, not a Distinct Entity	Preschool children (2 to 5 years) and women (15 to 49 years)	Household	LMIC
2020	Dinku et al.	Child dietary diversity and food (in)security as a potential correlate of child anthropometric indices in the context of urban food system in the cases of northcentral Ethiopia	Preschool children (6 to 59 months) and their mothers	Population	Ethiopia
2018	Minh Do et al.	Overweight, stunting, and concurrent overweight and stunting observed over 3 years in Vietnamese children	Children (3 to 6 years)	Individual	Vietnam
2016	Doak et al.	The stunted child with an overweight mother as a growing public health concern in resource-poor environments: a case study from Guatemala	Preschool children (5 to 23 months) and their mothers	Household	Guatemala
2015	Doku et al.	Double burden of malnutrition: increasing overweight and obesity and stall underweight trends among Ghanaian women	women (15 to 49 years)	Population	Ghana
2016	Dominguez-Salas et al.	Nutritional characterisation of low-income households of Nairobi: socioeconomic, livestock and gender considerations and predictors of malnutrition from a cross sectional survey	Preschool children (1 to 3 years) and women (15 to 45 years)	Population	Kenya
2014	dos Santos et al.	Secular Trends in Growth and Nutritional Status of Mozambican School-Aged Children and Adolescents	children (8 to 15 years)	Population	Mozambique

2006	Duran et al.	The association between stunting and overweight in Latin American and Caribbean preschool children	Preschool children (<5 years)	Population	Latin American and Caribbean
2009	Durán et al.	Estudio descriptivo de la situación nutricional en niños de 6-72 meses de la República Argentina. Resultados de la Encuesta Nacional de Nutrición y Salud (ENNyS)	Preschool children (6 to 72 months)	Individual	Argentina
2020	Dussán & Ramos-Castañeda.	Prevalencia de malnutrición en menores de 5 años. Comparación entre parámetros OMS y su adaptación a Colombia	Preschool children (<5 years)	Population	Colombia
2019	Dutta et al.	The double burden of malnutrition among adults in India: evidence from the National Family Health Survey-4 (2015-16)	Adults (15 to 49 years)	Population	India
2006	Eckhardt	Micronutrient Malnutrition, Obesity, and Chronic Disease in Countries Undergoing the Nutrition Transition: Potential Links and Program/Policy Implications	Not Specified	Individual (Life Course)	Developing countries
2007	Eckhardt et al.	The overlap of overweight and anaemia among women in three countries undergoing the nutrition transition	women (18 to 49 years)	Individual	Mexico, Egypt, and Peru
2009	Eftekhari et al.	The relationship between BMI and iron status in iron-deficient adolescent Iranian girls	Women (13 to 20 years)	Individual	Iran
2014	Egal et al.	Maternal waist circumference as a prediction of children's stunted status	Preschool children (<5 years) and their mothers	Household	South Africa
2013	Ejike et al.	Co-existence of child and adolescent obesity and thinness in a city in Nigeria: Comparison of results derived from different reference standards	Children (7 to 17 years)	Population	Nigeria
2010	Ejike et al.	Physical growth and nutritional status of a cohort of semi-urban Nigerian adolescents	Children (10 to 19 years)	Population	Nigeria
2016	El Kishawi et al.	Prevalence and Associated Factors for Dual Form of Malnutrition in Mother-Child Pairs at the Same Household in the Gaza Strip-Palestine	Preschool children (2 to 5 years) and their mothers (18 to 50 years)	Household	Palestine
2020	Kort	Child nutritional status in Armenia: gender bias or sex differences? A study on the influence of parental son preference on the indicators for child stunting and overweight	Preschool children (<5 years)	Individual	Armenia
2019	Elmoslemany et al.	Relation between body mass index and iron deficiency anemia in adolescent females	women (17 to 19 years)	Individual	Egypt
2012	Ene-Obong et al.	Prevalence of overweight, obesity, and thinness among urban school-aged children and adolescents in southern Nigeria	children and adolescents (5 to 18 years)	Population	Nigeria
2020	Engle-Stone	Intraindividual double burden of overweight and micronutrient deficiencies or anemia among preschool children	Preschool children (2 to 5 years)	Individual	22 countries

2020	Eshete	The coexistence of maternal overweight or obesity and child stunting in low-income country: Further data analysis of the 2016 Ethiopia demographic health survey (EDHS)	Preschool children (< 5 years) and women (15 to 49 years)	Household	Ethiopia
2014	Faber	Vitamin A and anthropometric status of South African preschool children from four areas with known distinct eating patterns	Children (1.5 years to 6 years)	Population	South Africa
2017	Faizi et al.	A study on nutritional status of school-going adolescents in Aligarh, India	Adolescents (13 to 15 year)	Population	India
2020	Fall et al.	Anthropometric nutritional status, and social and dietary characteristics of African and Indian adolescents taking part in the TALENT (Transforming Adolescent Lives through Nutrition) qualitative study	Children (10 to 17 years)	Population	Ivory Coast, South Africa, Gambia, Ethiopia, and India
2010	Fanou-Fogny et al.	Weight status and iron deficiency among urban Malian women of reproductive age	Women (15 to 49 years)	Individual	Mali
2019	Fanzo et al.	2018 Global Nutrition Report: Shining a light to spur action on nutrition	Preschool children (<5 years) and women (15 to 49 years)	Population /Individual	Multicountry
2021	Fanzo & Davis	The Multiple Burdens of Malnutrition	General population	Population/ Household /Individual	Developing countries
2021	Farah et al.	Concurrence of stunting and overweight/obesity among children: Evidence from Ethiopia	Preschool children (<5 years)	Individual	Ethiopia
2020	Félix-Beltrán et al.	Maternal height and double-burden of malnutrition households in Mexico: stunted children with overweight or obese mothers	Preschool children (<5 years) and women (13 to 49 years)	Household	Mexico
2015	Feng et al.	Developmental Origins of Health and Disease (DOHaD): Implications for health and nutritional issues among rural children in China	Children	Individual (Life course)	China
2007	Fernald & Neufeld	Overweight with concurrent stunting in very young children from rural Mexico: prevalence and associated factors	Preschool children (24 to 72 months)	Individual	Mexico
2020	Ferreira	Anthropometric assessment of children's nutritional status: a new approach based on an adaptation of Waterlow's classification	Preschool children (<5 years)	Individual	Brazil
2006	Ferreira	Mulheres obesas de baixa estatura e seus filhos desnutridos	women	Individual	Brazil
2011	Ferreira et al.	Nutrição e saúde das crianças das comunidades remanescentes dos quilombos no Estado de Alagoas, Brasil	Preschool children (<5 years)	Individual	Brazil

2008	Filho et al.	Anemia e obesidade: um paradoxo da transição nutricional brasileira	Children and women of child-bearing age	Individual /Population	Brazil
2016	Flor-Garrido et al.	Differences in nutritional status, physical activity, and fruit and vegetable consumption in urban and rural school-going adolescents in Paute, Ecuador	Adolescents (12 to 19 years)	Population	Ecuador
2001	Florêncio et al.	Obesity and undernutrition in a very-low-income population in the city of Maceio', northeastern Brazil	Children (<10 years); adolescents (10 to 18 years) and adults (>18 years)	Individual /Household	Brazil
2011	Florentino	The Double Burden of Malnutrition in Asia: A Phenomenon Not to be Dismissed	General population	Population /Household	Asia
2020	Flores-Guillén et al.	Intrauterine growth restriction and overweight, obesity, and stunting in adolescents of indigenous communities of Chiapas, Mexico	Followed from birth to adolescents.	Life course	Mexico
2019	Fongar et al.	Various forms of double burden of malnutrition problems exist in rural Kenya	Preschool children (<5 years) and Adults (≥18 years)	Individual /household.	Kenya
2021	Fookien & Vo	Exploring the macroeconomic and socioeconomic determinants of simultaneous over and undernutrition in Asia: An analysis of stunted child - overweight mother households	Preschool children (36 to 59 months) and women (15 to 49 years)	Household	11 Asian Countries
2018	Freire et al.	The double burden of chronic malnutrition and overweight and obesity in Ecuadorian mothers and children, 1986–2012	Preschool children (<5 years and Women (15 to 49 years)	Population	Ecuador
2014	Freire et al.	The double burden of undernutrition and excess body weight in Ecuador	General Population (0 to 59 years)	Household /individual	Ecuador
2015	Fu & George	Sex, Socioeconomic and Regional Disparities in Age Trajectories of Childhood BMI, Underweight and Overweight in China	Children 2 to 11 years old followed up to 15 to 24 years.	Population	China
2012	Galiano et al.	The double burden of malnutrition and its risk factors in school children in Tunja	Children (5 to 19 years)	Population	Colombia
2020	Gao et al.	Double Burden of Malnutrition and Nutrition Transition in Asia: A Case Study of 4 Selected Countries with Different Socioeconomic Development	Preschool children (<5 years and Women (15 to 49 years)	Population	China, India, Nepal, and Pakistan
2009	Garcia et al.	Impact of micronutrient deficiencies on obesity	General	Individual	Multicountry
2010	Gardner et al.	Prevalence of overweight, obesity and underweight among 5-year-old children in Saint Lucia by three methods of classification and a comparison with historical rates	Children (<7 years)	Population	Saint Lucia

2018	Garg et al.	Assessment of Familial Co-Existence of Dual Forms of Malnutrition in Mother-Child Pairs and Associated Risk Factors in South Karnataka	Preschool children (2 to 5 years) and Women (20 to 45 years)	Household	India
2013	Garg & Jindal	Dual burden of malnutrition in mother-child pairs of the same household: Effect of nutrition transition	Preschool children (1 to 3 years) and Women (20 to 45 years)	Household	India
2020	Garraza & Oyhenart	Doble carga de malnutrición, composición y proporción corporal en escolares del periurbano de Guaymallén, Mendoza	Children (4 to 13 years)	Population	Argentina
2005	Garret & Ruel	Stunted child–overweight mother pairs: Prevalence and association with economic development and urbanization	Preschool children (< 5 years) and Women (15 to 49 years)	Household	Multicountry (42 countries)
2014	Gartner et al.	A Double Burden of Overall or Central Adiposity and Anemia or Iron Deficiency Is Prevalent but with Little Socioeconomic Patterning among Moroccan and Tunisian Urban Women	Women (20 to 49 years)	Population/ Individual	Morocco and Tunisia
2013	Gaur et al.	Does living in slums or non-slums influence women’s nutritional status? Evidence from Indian mega-cities	Women (15 to 49 years)	Population	India
2016	Géa-Horta et al.	Factors associated with nutritional outcomes in the mother–child dyad: a population-based cross-sectional study	Preschool children (<5 years) and Women (15 to 49 years)	Household	Brazil
2002	Geok & Sharif	Dual forms of malnutrition in the same households in Malaysia – a case study among Malay rural households	Children (1-6 years) and mothers (≥20 years)	Household	Malaysia
2009	Gewa	Childhood overweight and obesity among Kenyan pre-school children: association with maternal and early child nutritional factors	Preschool children (3 to 5 years) and Women (15 to 49 years)	Individual /Population	Kenya
2012	Gewa et al.	Geographic distribution and socio-economic determinants of women’s nutritional status in Mali households	Women (19 to 44 years)	Population	Mali
2019	Ghattas et al.	Child-level double burden of malnutrition in the MENA and LAC regions: Prevalence and social determinants	Preschool children (<5 years)	Individual /Population	Middle East and North Africa (MENA) and Latin America and the Caribbean (LAC) regions
2014	Ghattas	Food Security and Nutrition in the context of the Global Nutrition Transition	Not Specified	Household /Individual (Life course)	Multicountry

2021	Ghimire & Vatsa	Spatial distribution of various forms of malnutrition among reproductive age women in Nepal: A Bayesian geosadditive quantile regression approach	Women (15 to 49 years)	Population	Nepal
2022	Gholizadeh et al.	Relationship between the double burden of malnutrition and mental health in overweight and obese adult women	women (18 to 59 years)	Individual	Iran
2006	Gigante et al.	Undernutrition in early life and body composition of adolescent males from a birth cohort study	Preschool children (2 to 4 years)	Life course	Brazil
2013	Gómez et al.	Post-green revolution food systems and the triple burden of malnutrition	Preschool children (<5 years)	Population	None
2021	Gonete et al.	Malnutrition and contributing factors among newborns delivered at the University of Gondar Hospital, Northwest Ethiopia: a cross-sectional study	Newborns	Individual	Ethiopia
2021	Govender et al.	Assessment of the Nutritional Status of Four Selected Rural Communities in KwaZulu-Natal, South Africa	Preschool children (1 to 5 years) and Adults (16 to 35 years)	Population	South Africa
2017	Goyena et al.	Determinants of Chronic Energy Deficiency and Overweight/Obesity Among Non-Pregnant Mothers 19 Years and Older in the Philippines	Women (≥ 19 years)	Population	Philippines
2019	Grajeda et al.	Regional Overview on the Double Burden of Malnutrition and Examples of Program and Policy Responses: Latin America and the Caribbean	Preschool children (<5 years) and women of child-bearing age	Population	Caribbean region
2016	Greffeuille et al.	Inequalities in Nutrition between Cambodian Women over the Last 15 Years (2000–2014)	Women (15 to 49 year)	Population	Cambodia
2012	Grijalva-Eternod et al.	The Double Burden of Obesity and Malnutrition in a Protracted Emergency Setting: A Cross-Sectional Study of Western Sahara Refugees	Preschool children (6 to 59 months) and Women (15 to 49 years).	Household	Algeria
2016	Grillo et al.	Childhood stunting and the metabolic syndrome components in young adults from a Brazilian birth cohort study	Infants (2 years old) followed to adulthood	Individual (Life course)	Brazil
2017	Gubert et al.	Understanding the double burden of malnutrition in food insecure households in Brazil	Preschool children (<5 years and Women (15 to 49 years)	Household	Brazil
2019	Guevara	Aproximación a los determinantes de la doble carga nutricional en hogares colombianos de acuerdo con la Encuesta Nacional de la Situación Nutricional en Colombia, 2010.	Preschool children (<5 years and Women (13 to 49 years)	Household	Colombia
2021	Guevara-Romero et al.	Factors associated with the double burden of malnutrition at the household level: A scoping review	Household members	Household	Multicountry

2021	Gupta & Al Kibria	Prevalence and associated factors of underweight, overweight, and obesity Among Bangladeshi adults: An analysis of demographic and health survey 2017-18	Adults (≥18 years)	Population	Bangladesh
2020	Gupta et al.	Factors and Inequality of Underweight and Overweight among Women of Reproductive Age in Myanmar: Evidence from the Demographic Health Survey 2015–2016	Women (15 to 49 years)	Population	Myanmar
2014	Gupta et al.	Prevalence and predictors of the dual burden of malnutrition among adolescents in North India	Adolescents (14 to 19 years)	Population	India
2019	Gurung et al.	Dual Burden of Underweight and Overweight among Likely to Conceive Women of Rural North Karnataka: Prevalence and Its Social-Demographic Determinants-Baseline Result of DBW Cohort Study	Women (15 to 45 years)	Population	India
2020	Gutema et al.	The Burden of Malnutrition among Adults Residing in Arba Minch Health and Demographic Surveillance Site (HDSS): A WHO STEPS Survey	Adults (25 to 64 years)	Population	Ethiopia
2019	Gutierrez	Prevalencia de la coexistencia de anemia y sobrepeso u obesidad en niños de 6 a 59 meses de edad y factores sociodemográficos asociados en el Perú”	Preschool children (6 to 59 months)	Individual	Peru
2011	Ha et al.	Nationwide shifts in the double burden of overweight and underweight in Vietnamese adults in 2000 and 2005: two national nutrition surveys	Adults (25 to 64 years)	Population	Vietnam
2015	Haddad et al.	The double burden of malnutrition in SE Asia and the Pacific: priorities, policies and politics	Preschool children (<5 years) and Women (≥20 years)	Population	Southeast Asia region
2016	Haggblade et al.	Emerging Early Actions to Bend the Curve in Sub-Saharan Africa’s Nutrition Transition	Children, Adult Women, and men	Population	Sub-Saharan Africa
2020	Hajri et al.	Prevalence of stunting and obesity in Ecuador: a systematic review	Preschoolers (<5 years): school-age children (5 to 11 years) and adolescent (12 to 18 years) and adults (>19 years)	Population	Ecuador
2015	Hanandita & Tampubolon	The double burden of malnutrition in Indonesia: Social determinants and geographical variations	Adults (≥15 years)	Population	Indonesia
2018	Hanson et al.	Stunting at 24 Months Is Not Related to Incidence of Overweight through Young Adulthood in an Urban South African Birth Cohort	Cohort followed from birth to adulthood	Individual (Life course)	South Africa

2021	Hasan et al.	Double burden of malnutrition among women of reproductive age in 55 low- and middle-income countries: progress achieved and opportunities for meeting the global target	Women (15 to 49 years)	Population	55 LMICs
2017	Hasan et al.	Double Burden of Malnutrition among Bangladeshi Women: A Literature Review	Women	Population	Bangladesh
2020	Hashan et al.	Prevalence and associated factors of underweight, overweight and obesity among women of reproductive age group in the Maldives: Evidence from a nationally representative study	Women (15 to 49 years)	Population	Maldives
2020	Hashan et al.	Differences in prevalence and associated factors of underweight and overweight/obesity according to rural–urban residence strata among women of reproductive age in Bangladesh: evidence from a cross-sectional national survey	Women (15 to 49 years)	Population	Bangladesh
2012	Hassan & Rguibi	Nutritional paradox of the Moroccan population: Coexistence of undernutrition and obesity	General Population	Population	Morocco
2017	Hassen et al.	Dual Burden of Malnutrition Among Adolescents of Smallholder Coffee Farming Households of Jimma Zone, Southwest Ethiopia	Adolescents	Population	Ethiopia
2019	Hauqe et al.	Examining the relationship between socioeconomic status and the double burden of maternal over and child under-nutrition in Bangladesh	Preschool children (<5 years) and Women (15 to 49 years)	Household	Bangladesh
2016	He et al.	Prevalence of Underweight, Overweight, and Obesity Among Reproductive-Age Women and Adolescent Girls in Rural China	Women (15 to 49 years)	Population	China
2015	Herter-Aeberli et al.	Increased risk of iron deficiency and reduced iron absorption but no difference in zinc, vitamin A or B-vitamin status in obese women in India	Women (18 to 35 years)	Individual	India
2015	Heshmat et al.	Association of Socioeconomic Status with Anthropometric Measures and Blood Pressure in a Representative Sample of Iranian Children and Adolescents: The CASPIAN-IV Study	Children (6 to 18 years)	Population	Iran
2002	Hesketh et al.	Disparities in economic development in Eastern China: impact on nutritional status of adolescents	Adolescents (13 to 16 years)	Population	China
2020	Hofman et al.	Double burden and double duty: Government action required to improve child nutrition	Preschool children (<5 years)	Population	South Africa
2021	Hombaiah et al.	Ambivalence in distinguishing double burden of malnutrition among school children in three districts of south India	Children (6 to 17 years)	Population	India

2020	Hong et al.	Prevalence and regional variations of coexistence of child stunting and maternal overweight or obesity in Myanmar	Preschool children (<5 years) and Women (15 to 49 years)	Household	Myanmar
2019	Hong et al.	Rural–urban differences in socioeconomic inequality trends for double burden of malnutrition in Thailand 2005–2016	Preschool children (<5 years)	Population	Thailand
2018	Hong et al.	The prevalence of underweight, overweight and obesity and their related sociodemographic and lifestyle factors among adult women in Myanmar, 2015–16	Women (18 to 49 years)	Population	Myanmar
2017	Hoque et al.	Double burden of underweight and overweight among Bangladeshi adults differs between men and women: evidence from a nationally representative survey	Adults (≥18 years)	Population	Bangladesh
2015	Hoque et al.	Rapid shift toward overweight from double burden of underweight and overweight among Bangladeshi women: a systematic review and pooled analysis	Women (18 to 49 years)	Population	Bangladesh
2020	Hossain et al.	Double burden of malnutrition in children aged 24 to 59 months by socioeconomic status in five South Asian countries: evidence from demographic and health surveys	Preschool children (24 to 59 months)	Population	Bangladesh, India, Pakistan, Maldives, and Nepal
2018	Hossain et al.	Prevalence and determinants risk factors of underweight and overweight among women in Bangladesh	Women (15 to 49 years)	Population	Bangladesh
2017	Houck	Early Life Effects of a Dual Burden Environment: Childhood Intestinal Health and Immune Function in Galápagos, Ecuador	Preschool children (2 to 10 years) and their mothers	Individual	Ecuador
2013	Houck et al.	The Effects of Market Integration on Childhood Growth and Nutritional Status: The Dual Burden of Under- and Over-Nutrition in the Northern Ecuadorian Amazon	Children (2 to 18 years)	Population	Ecuador
2013	Hsaïni et al.	Coexistence de surpoids/obésité et d’anémie chez les femmes de Rabat-Salé	Women (20 to 49 years)	Individual	Morocco
2021	Hu et al.	Intraindividual Double Burden of Malnutrition in Chinese Children and Adolescents Aged 6–17 Years: Evidence from the China Health and Nutrition Survey 2015	Children (6 to 17 years)	Individual	China
2020	Huang et al.	Intra-Individual Double Burden of Malnutrition among Adults in China: Evidence from the China Health and Nutrition Survey 2015	Adults (18 to 59 years)	Individual	China
2016	Hutchinson	A review of iron studies in overweight and obese children and adolescents: a double burden in the young?	Children and adolescents	Individual	High-, Middle- and Low-Income

2018	Ibrahim et al.	Iron deficiency and obesity in pre-school children	Preschool children (<5 years)	Individual	General
2012	Ihab et al.	The Coexistence of Dual Form of Malnutrition in A Sample of Rural Malaysia	Children (2 to 12 years) and their mothers (18 to 55 years)	Household	Malaysia
2017	Ijeoma et al.	Food insecurity and nutritional status of mothers in Abia and Imo states, Nigeria.	Women (18 to 49 years)	Population	Nigeria
2018	Insfrán et al.	Doble carga de malnutrición en madres y niños menores de cinco años de edad de dos comunidades indígenas del Departamento Central	Preschool children (<5 years) and their mothers (≥18 years)	Household	Paraguay
2021	Irache et al.	Intra-household double burden of overweight/obesity and anaemia: Evidence from 49 low-and middle-income countries	Preschool children (<5 years) and Women (15 to 49 years)	Household	49 LMICs
2021	Irache et al.	The co-occurrence of overweight/obesity and anaemia among adult women, adolescent girls and children living in fifty-two low-and middle-income countries	Preschool children (<5 years) and Women (15 to 49 years)	Individual	52 LMICs
2021	Islam et al.	Trends in body mass index among ever-married Bangladeshi women, 2004–14: evidence from nationally representative population-based surveys	Women (15 to 49 years)	Population	Bangladesh
2020	Ismail et al.	Prevalence and risk factors associated with malnutrition among adolescents in rural Tanzania	Adolescents (10 to 19 years)	Population	Tanzania
2020	Ivanovitch et al.	Overweight and Obesity Coexist with Thinness among Lao's Urban Area Adolescents	Adolescents (15 to 19 years)	Population	Laos
2021	Iversen et al.	Child stunting concurrent with wasting or being overweight: A 6-y follow up of a randomized maternal education trial in Uganda	Children of 6 to 8 months followed up for 6 years	Individual	Uganda
2014	Jaacks et al.	Recent trends in the prevalence of under- and overweight among adolescent girls in low- and middle-income countries	Adolescent girls 15 to 18 years	Population	53 LMICs
2008	Jafar et al.	Rise in childhood obesity with persistently high rates of undernutrition among urban school-aged Indo-Asian children	Children 5 to 14 years	Population	Pakistan
2020	Jallow-Badjan et al.	Prevalence and Factors Associated with Thinness and Overweight/Obesity Among Secondary School Adolescents. A Cross-sectional Study	Adolescents 13 to 19 years	Population	Gambia
2015	Janjua et al.	Association of Household and Community Socioeconomic Position and Urbanicity with Underweight and Overweight among Women in Pakistan	Women (15 to 49 years)	Population	Pakistan

2016	Jardim-Botelho et al.	Micronutrient deficiencies in normal and overweight infants in a low socio-economic population in north-east Brazil	2 to 11-month-old	Individual	Brazil
2019	Jarvie	Early life factors associated with stunting and overweight at 12 months in infants enrolled in the mother and child in the environment (mace) study, Durban	Children (0 to 24 months)	Individual	South Africa
2019	Jayalakshmi & Kannan	The double burden of malnutrition: an assessment of 'stunted child and overweight/obese mother (SCOWT) pairs' in Kerala households	Preschool children (<5 years) and their mothers	Household	India
2011	Jayne et al.	Dietary and socio-economic correlates of nutritional status in a rural adult Kenyan population	Adults (18 to 55 years)	Population	Kenya
2009	Jeemon et al.	Double burden of underweight and overweight among children (10–19 years of age) of employees working in Indian industrial units	Children (10 to 19 years)	Population	India
2009	Jehn & Brewis	Paradoxical malnutrition in mother–child pairs: Untangling the phenomenon of over- and under-nutrition in underdeveloped economies	Preschool children (3 to 5 years) and Women (13 to 49 years)	Household	18 LMICs
2014	Jérôme	insécurité alimentaire des ménages et le double fardeau nutritionnel en milieu rural au Bénin en 2014	Preschool children (<5 years) and their mothers (16 to 42 years)	Household	Benin
2020	Cortés Jiménez et al.	Determinantes socioeconómicos y doble carga de malnutrición en menores de cinco años de la población indígena de cinco cantones de la provincia de Chimborazo: Riobamba, Alausí, Guamote, Guano y Colta período Noviembre 2018 – Noviembre 2019	Preschool children (<5 years) and their mothers	Household	Ecuador
2020	Jiwani et al.	Trends and inequalities in the nutritional status of adolescent girls and adult women in sub-Saharan Africa since 2000: A cross-sectional series study	Women (15 to 49 years)	Population	Sub Saharan Africa
2017	Johnson et al.	Body Image Perception and Nutritional status of Adolescents in a school in rural South India	Adolescent (12 to 16 years)	Population	India
2016	Jones et al.	Household food insecurity in Mexico is associated with the co-occurrence of overweight and anemia among women of reproductive age, but not female adolescents	Women (15 to 49 years)	Individual	Mexico
2018	Jones et al.	Peri-Urban, but Not Urban, Residence in Bolivia Is Associated with Higher Odds of Co-Occurrence of Overweight and Anemia among Young Children, and of Households with an Overweight Woman and Stunted Child	Preschool children (1 to 5 years) and women (15 to 49 years)	Individual /Household	Bolivia

2016	Jones et al	Urbanicity Gradients Are Associated with the Household- and Individual-Level Double Burden of Malnutrition in Sub-Saharan Africa	Preschool children (1 to 5 years) and women (15 to 49 years)	Household/ Individual	30 countries in SSA
2016	Jones et al.	The co-occurrence of anemia and cardiometabolic disease risk demonstrates sex-specific sociodemographic patterning in an urbanizing rural region of southern India	Adults (≥18 years)	Individual	India
2015	Jones	Unhealthy Weight among Children under Age 5 years in the Middle East and North African Region: Prevalence and Associated Factors	Preschool children (<5 years) and Women (15 to 49 years)	Households	Middle East and North African Region
2018	Jordaan et al.	Obesity is associated with anaemia and iron deficiency indicators among women in the rural Free State, South Africa	Women (25 to 49 years)	Individual	South Africa
2021	Jubayer et al.	Prevalence and Trends in Malnutrition, Individual and Country Level Adulthood Dual Burden of Malnutrition in Rural Bangladesh: Findings from Bangladesh Integrated Household Survey, 2011 – 2015	Adolescents (11 to 19 years)	Population/ Individuals	Bangladesh
2021	de Juras et al.	Prevalence and Determinants of the Co-Occurrence of Overweight or Obesity and Micronutrient Deficiencies among Adults in the Philippines: Results from a National Representative Survey	Adults (>20 years)	Individual	Philippines
2019	Kadiyala et al.	Rural transformation and the double burden of malnutrition among rural youth in developing countries	Adolescents (12 to 19 years)	Population	Ethiopia, India, Peru, and Vietnam
2020	Kaku & Patil	Dual-Malnutrition Burden in Lower Socioeconomic Status Women in Mumbai	Women (25 to 40 years)	Population	India
2021	Kaldenbach et al.	Infant feeding, growth monitoring and the double burden of Malnutrition among children aged 6 months and their mothers in KwaZulu-Natal, South Africa	Infants (25 to 31 weeks) and their mothers/caregivers (≥15 years)	Household	South Africa
2015	Kamal et al.	Dual Burden of Underweight and Overweight among Women in Bangladesh: Patterns, Prevalence, and Sociodemographic Correlates	Women (15 to 49 years)	Population	Bangladesh
2021	Kamal	Individual- and community-level factors associated with underweight and overweight among women of reproductive age in Bangladesh: a multilevel analysis	Women (15 to 49 years)	Population	Bangladesh
2020	Kambale et al.	Infant and young child feeding practices and nutritional status in two Health Zones of South Kivu, Eastern Democratic Republic of Congo: a community based study	Preschool children (<24 months) and their mothers	Population	Democratic Republic of Congo

2016	Kaner et al.	Is iron deficiency related with increased body weight? A cross-sectional study	Women (20 to 49 years)	Individual	Turkey
2016	Sim	Interconnectedness of Micronutrient Deficiency and Obesity in Children: Impact of Dual Burden of Nutritional Disorders and Two-hit Insult	Preschool children (<5 years)	Population/ Individual	Brazil, Chile, and Mexico
2021	Kasomo & Gayawan	Spatial location, temperature and rainfall diversity affect the double burden of malnutrition among women in Kenya	Women (15 to 49 years)	Population	Kenya
2017	Kate et al.	Double burden or double counting of child malnutrition? The methodological and theoretical implications of stunting/overweight in low and middle income countries	Preschool children (<5 years)	Individual	Multicountry (79 LMICs)
2016	Kavle et al.	Factors associated with early growth in Egyptian infants: implications for addressing the dual burden of malnutrition	Infants (0 to 12 Months)	Life course	Egypt
2020	Kawser et al.	Socioeconomic, behavioural and sexual-health factors associated with nutritional status of female commercial sex workers in Dhaka city, Bangladesh: a cross-sectional study	Women (14 to 55 years)	Population	Bangladesh
2016	Keding	Nutrition Transition in Rural Tanzania and Kenya	General Population	Population/ Household/ Individual	Tanzania and Kenya
2022	Keetile et al.	The double burden of malnutrition among adults in sub-Saharan Africa: A systematic review of literature	Adults (≥15 years)	Population	Sub-Saharan Africa
2014	Keino et al.	Determinants of stunting and overweight among young children and adolescents in sub-Saharan Africa	Children (0 to 18 years)	Household/ Individual	Sub Saharan Africa
2015	Kelishadi et al.	Methodology and Early Findings of the Assessment of Determinants of Weight Disorders among Iranian Children and Adolescents: The Childhood and Adolescence Surveillance and Prevention of Adult Noncommunicable Disease-IV Study	Children (6 to 18 years)	Population	Iran
2006	Kennedy et al.	Assessment of the double burden of malnutrition in six case study countries	General Population	Population	China, Egypt, India, Mexico, Philippines, and South Africa.
2016	Keya	Malnutrition among women in Bangladesh is a great concern for near future	Women (15 to 49 years)	Population	Bangladesh
2021	Khaliq et al.	A Review of the Prevalence, Trends, and Determinants of Coexisting Forms of Malnutrition	-	Individual	Multicountry
2021	Khaliq et al.	Prevalence, Trends, and Socioeconomic Determinants of Coexisting Forms of Malnutrition Amongst Children under	Preschool children (<5 years)	Individual	Pakistan

		Five Years of Age in Pakistan			
2012	Khambalia et al.	Prevalence and sociodemographic factors of malnutrition among children in Malaysia	Children (0 to 18 years)	Population	Malaysia
2020	Khan et al.	A descriptive study of double burden of malnutrition in mothers of children with severe acute malnutrition admitted in Children Hospital and Institute of Child Health, Multan	Mothers of admitted children	Household/ Population	Pakistan
2021	Khan & Gulshan	Assessing the double burden of malnutrition among Bangladeshi reproductive-aged women: A comparison between unconditional and conditional quantile regression	Women (15 to 49 years)	Population	Bangladesh
2017	Khan et al.	Maternal undernutrition and excessive body weight and risk of birth and health outcomes	Women (15 to 49 years)	Population	Bangladesh
2009	Khan & Kraemer	Factors associated with being underweight, overweight and obese among ever-married non-pregnant urban women in Bangladesh	Women (13 to 49 years)	Population	Bangladesh
2013	Khan & Talukder	Nutrition transition in Bangladesh: is the country ready for this double burden	Women (15 to 49 years)	Population	Bangladesh
2018	Khanam et al.	Levels and correlates of nutritional status of women of childbearing age in rural Bangladesh	Women (15 to 49 years)	Population	Bangladesh
2008	Khor	Food-based approaches to combat the double burden among the poor: challenges in the Asian context	Preschool children (<5 years) and Adults (≥15 years)	Population/ Household	Asia region
2010	Kim et al.	Dietary factors related to body weight in adult Vietnamese in the rural area of Haiphong, Vietnam: The Korean Genome and Epidemiology Study (KoGES)	Adults (19 to 60 years)	Population	Vietnam
2015	Kimani-Murage et al.	Evidence of a Double Burden of Malnutrition in Urban Poor Settings in Nairobi, Kenya	Preschool children (<5 years)	Population	Kenya
2013	Kimani-Murage	Exploring the paradox: double burden of malnutrition in rural South Africa	Children/Adolescents (1 to 20 years)	Population	South Africa
2010	Kimani-Murage et al.	The prevalence of stunting, overweight and obesity, and metabolic disease risk in rural South African children	Children/Adolescents (1 to 20 years)	Population	South Africa
2012	Kolčić	Double burden of malnutrition: A silent driver of double burden of disease in low- and middle-income countries	-	Population/ Household/ Individual	Developing Countries
2021	Bhattacharyya et al.	Burden of malnutrition among school-going children in a slum area of Kolkata: A matter of concern	Children (6 to 19 years)	Population	India
2012	Kordas et al.	Being Overweight or Obese Is Associated with Lower Prevalence of Anemia among Colombian Women of Reproductive Age	Women (13 to 49 years)	Individual	Colombia

2017	Kosaka & Umezaki	A systematic review of the prevalence and predictors of the double burden of malnutrition within households	General Population	Household	-
2014	Kroker-Lobos et al.	The double burden of undernutrition and excess body weight in Mexico	children (0 to 11 years) and women (20 to 49 years)	Population/ Household/ Individual	Mexico
2011	Kruger et al.	Overweight among children decreased, but obesity prevalence remained high among women in South Africa, 1999–2005	Children (1 to 9 years) and women (16 to 35 years)	Population	South Africa
2012	Kruger et al.	Sex Differences Independent of Other Psycho-sociodemographic Factors as a Predictor of Body Mass Index in Black South African Adults	Adults (≥15 years)	Population	South Africa
2019	Kshatriya & Acharya	Prevalence and risks of hypertension among Indian tribes and its status among the lean and underweight individuals	Adults (20 to 60 years)	Individual	India
2016	Kshatriya & Acharya	Triple Burden of Obesity, Undernutrition, and Cardiovascular Disease Risk among Indian Tribes	Adults (20 to 60 years)	Population	India
2017	Kulkarni et al.	Double Burden of Malnutrition’’: Reexamining the Coexistence of Undernutrition and Overweight Among Women in India	Women (22 to 49 years)	Population	India
2018	Kulkarni	Addressing the Double Burden of Malnutrition in Developing Countries: Need for Strategies to Improve the Lean Body Mass	-	Individual (Life course)	Developing Countries
2014	Kulkarni et al.	Nutritional influences over the life course on lean body mass of individuals in developing countries	-	Individual (Life course)	Developing countries
2020	Kumar et al.	Double burden of malnutrition among women residing in tenements in a resettlement area, Kancheepuram district	Women (≥18 years)	Population	India
2021	Kumar et al.	Prevalence and factors associated with triple burden of malnutrition among mother-child pairs in India: a study based on National Family Health Survey 2015–16	Preschool children (<5 years) and Women (15 to 49 years)	Household	India
2019	Kurian & Suri	Weighed Down by the Gains: India’s Twin Double Burdens of Malnutrition and Disease	Preschool children (<5 years) and Women (15 to 49 years)	Population	India
2020	Kushitor et al.	The prevalence and correlates of the double burden of malnutrition among women in Ghana	Women (15 to 49 years)	Individual	Ghana
2020	Kuwornu et al.	Measuring the Overall Burden of Early Childhood Malnutrition in Ghana: A Comparison of Estimates from Multiple Data Sources	Preschool children (<5 years)	Population	Ghana
2005	Labadarios	Malnutrition in the developing world: The triple burden	Children (1 to 8 years)	Population/ Individual (Life course)	Developing Countries

2014	Laillou et al.	Intra-Individual Double Burden of Overweight and Micronutrient Deficiencies among Vietnamese Women	Women (15 to 49 years)	Individual	Vietnam
2012	Laillou et al.	Micronutrient Deficits Are Still Public Health Issues among Women and Young Children in Vietnam	Children (6 to 75 months) and Women (15 to 49 years)	Population	Vietnam
2019	Lakhan et al.	Coexistence of obesity and anaemia among Indian women: A geospatial analysis of NFHS-4 data	Women (15 to 49 years)	Population /Individual	India
2020	Latemo	Dual burden of underweight and overweight/obesity among adults in Botswana: prevalence, trends and sociodemographic correlates: a cross-sectional survey	Adults (25 to 64 years)	Population	Botswana
2020	LBD Double Burden of Malnutrition Collaborators	Mapping local patterns of childhood overweight and wasting in low- and middle-income countries between 2000 and 2017	Preschool children (<5 years)	Population	Multicountry
2019	Le et al.	Ethnic Variations in Nutritional Status among Preschool Children in Northern Vietnam: A Cross-Sectional Study	Preschool children (24 to 60 months)	Population	Vietnam
2021	Leal	Factores socioeconómicos asociados a la doble carga nutricional en la diada madre-hijo que asisten a la consulta externa del centro de salud del municipio de Malacatán, San Marcos, Guatemala 2020	Preschool children (6 to 24 months), and their mothers (18 to 50 years)	Household	Guatemala
2017	Lee et al.	Association of the Familial Coexistence of Child Stunting and Maternal Overweight with Indigenous Women in Guatemala	Preschool children (<5 years) and Women (18 to 49 years)	Household	Guatemala
2010	Lee et al.	Disentangling nutritional factors and household characteristics related to child stunting and maternal overweight in Guatemala	Preschool children (1 to 5 years) and Women (18 to 49 years)	Household	Guatemala
2020	Lee et al.	Multiple burdens of malnutrition and relative remoteness in rural Ecuadorian communities	Preschool children (<5 years) and Adults (≥18 years)	Population /Household	Ecuador
2018	Lee & Ryu	Relationship between dietary intakes and the double burden of malnutrition in adults of Malang, Indonesia: An exploratory study	Adults (19 to 65 years)	Individual	Indonesia
2012	Lee et al.	Socioeconomic disparities and the familial coexistence of child stunting and maternal overweight in Guatemala	Preschool children 6 to 60 months and their mothers (18 to 49 years)	Household	Guatemala
2021	Leocádio et al.	The Transition from Undernutrition to Overnutrition Under Adverse Environments and Poverty: The Risk for Chronic Diseases	-	Life course	Developing Countries

2020	Lerm et al.	The double burden of malnutrition in under-five children at national and individual levels: observed and expected prevalence in ninety-three low- and middle-income countries	Preschool children (<5 years)	Population/ Individual	93 LMIC countries
2014	Leroy et al.	Maternal Education Mitigates the Negative Effects of Higher Income on the Double Burden of Child Stunting and Maternal Overweight in Rural Mexico	Preschool children (<5 years) and Women (18 to 49 years)	Household	Mexico
2020	Leyso & Palatino	Detecting Local Clusters of Under-5 Malnutrition in the Province of Marinduque, Philippines Using Spatial Scan Statistic	Preschool children (<5 years)	Population	Philippines
2011	Li et al.	Lack of dietary diversity and dyslipidaemia among stunted overweight children: the 2002 China National Nutrition and Health Survey	Children (2 to 17 years)	Individual	China
2008	Li et al.	Obesity prevalence and time trend among youngsters in China, 1982-2002	children (7 to 17 years)	Individual	China
2019	Limon et al.	Two level logistic regression analysis of factors influencing dual form of malnutrition in mother-child pairs: A household study in Bangladesh	Preschool children (< 5 years) and Women (15 to 49 years)	Household	Bangladesh
2008	Lin	Over and Under: The Role of Urbanization on the Double Burden of Nutrition in Developing Countries	General Population	Household/ Individual	Developing Countries
2016	Little et al	Factors associated with BMI, underweight, overweight, and obesity among adults in a population of rural south India: a cross sectional study	Adults (20 to 80 years)	Population	India
2020	Little et al.	Socio-demographic patterning of the individual-level double burden of malnutrition in a rural population in South India: a cross-sectional study	Adults (≥20 years)	Individual	India
2021	Littlejohn & Finlay	When a pandemic and an epidemic collide: COVID-19, gut microbiota, and the double burden of malnutrition	-	Population	Global
2022	Liu et al.	Dual Burden of Malnutrition Among Adolescents with Hunger Aged 12–15 Years in 41 Countries: Findings From the Global School-Based Student Health Survey	Adolescents (12 to 15 years)	Population	Multicountry (41 countries)
2021	Lokossou et al.	The presence of the double burden of malnutrition in children and their mothers in Grand-Popo, Benin	Preschool children (<5 years) and Women (16 to 63 years)	Household	Benin
2012	Longkumer	Physical Growth and Nutritional Status among Ao Naga Children of Nagaland, Northeast India	children (8 to 15 years)	Population	India
2019	Lopes et al.	Nutrition profile of children in Maranhão state	Preschool children (6 to 59 months)	Population	Brazil

2012	López et al.	Nutritional status of adolescents in the context of the Moroccan nutritional transition: the role of parental education	Adolescents (15 to 20 years)	Population	Morocco
2016	Lopez-Arana et al.	Conditional cash transfers and the double burden of malnutrition among children in Colombia: a quasi-experimental study	Children (2 to 9 years)	Population	Colombia
2015	Lopez-Lopez et al.	The Link between Fetal Programming, Inflammation, Muscular Strength, and Blood Pressure	-	Life course	Latin America
2021	Lowe et al.	The double burden of malnutrition and dietary patterns in rural Central Java, Indonesia	Children (5 to 18 years) and Adults (≥19 years)	Household	Indonesia
2020	Luo et al.	Measuring malnutrition in all its forms: An update of the net state of nutrition index to track the global burden of malnutrition at country level	General Population	Population	Multicountry
2013	Ly et al.	Double burden: a cross-sectional survey assessing factors associated with underweight and overweight status in Danang, Vietnam	Adults (≥35 years)	Population	Vietnam
2010	Ma et al.	BMI percentile curves for Chinese children aged 7–18 years, in comparison with the WHO and the US Centers for Disease Control and Prevention references	Children (7 to 18 years)	Population	China
2020	Madzorera & Fawzi	Women empowerment is central to addressing the double burden of malnutrition	Women	Population	LMIC
2019	Maehara et al.	Patterns and risk factors of double burden of malnutrition among adolescent girls and boys in Indonesia	Adolescent (12 to 18 years)	Population	Indonesia
2018	Mahmudiono et al.	Comparison of maternal nutrition literacy, dietary diversity, and food security among households with and without double burden of malnutrition in Surabaya, Indonesia	Preschool children (<5 years) and their mothers	Household	Indonesia
2018	Mahmudiono et al.	Household Food Insecurity as a Predictor of Stunted Children and Overweight/Obese Mothers (SCOWT) in Urban Indonesia	Preschool children (<5 years) and their mothers	Household	Indonesia
2019	Mahmudiono et al.	Socio-Ecological Model of Correlates of Double Burden of Malnutrition in Developing Countries: A Narrative Review	-	Population/ household/ individual	Developing countries
2018	Mahmudiono et al.	The Effectiveness of Nutrition Education for Overweight/Obese Mother with Stunted Children (NEO-MOM) in Reducing the Double Burden of Malnutrition	Preschool children (2 to 5 years) and their mothers	Household	Indonesia
2020	Mai et al.	The double burden of malnutrition in Vietnamese school-aged children and adolescents: a rapid shift over a decade in Ho Chi Minh City	Children (6 to 18 years)	Population	Vietnam

1992	Maire et al.	Urbanisation et Transition Nutritionnelle en Afrique Sub-Saharienne : les exemples du Congo et du Sénégal	Preschool children (2 to 5 years) and their mothers	Population	Senegal and Congo
2012	Maiti et al.	Stunting, underweight and overweight: a major health problem among children under 3 years of age in urban areas of West Bengal, India	Preschool children (1 to 3 years)	Population	India
2020	Makanjana & Naicker	Nutritional Status of Children 24–60 Months Attending Early Child Development Centres in a Semi-Rural Community in South Africa	Preschool children (24 to 60 months)	Population	South Africa
2018	Malik et al.	Double burden of malnutrition among mother-child DYADS in urban poor settings in India	Preschool children (3 to 5 years) and their mothers (≥ 18 years)	Household	India
2005	Mamabolo et al.	Prevalence and determinants of stunting and overweight in 3-year-old black South African children residing in the Central Region of Limpopo Province, South Africa	Infants (3-year-olds)	Individual	South Africa
2019	Mamun et al.	Double Burden of Malnutrition (DBM) and Anaemia under the Same Roof: A Bangladesh Perspective	Preschool children (<5 years) and Women (15 to 49 years)	Household	Bangladesh
2018	Manna et al.	Double burden of malnutrition among female college students of Paschim Medinipur District, India	Women (18 to 20 years)	Population	India
2014	Manyanga et al.	The prevalence of underweight, overweight, obesity and associated risk factors among school-going adolescents in seven African countries	Adolescents (11 to 17 years)	Population	Benin, Djibouti, Egypt, Ghana, Mauritania, Malawi, and Morocco,
2011	Martins et al.	Long-Lasting Effects of Undernutrition	-	Population/ household/ individual	Brazil
2013	Masibo et al.	Prevalence and determinants of under-and over-nutrition among adult Kenyan women; evidence from the Kenya demographic and health survey 2008-09	Women (20 to 49 years)	Population	Kenya
2020	Masibo et al.	The double burden of overnutrition and undernutrition in mother-child dyads in Kenya: demographic and health survey data, 2014	Preschool children (<5 years) and Women (15 to 49 years)	Household	Kenya
2016	Massad et al.	Double Burden of Undernutrition and Obesity in Palestinian Schoolchildren: A Cross-Sectional Study	Children (5 to 16 years)	Population	Palestine

2020	Mbogori et al.	Nutrition transition and double burden of malnutrition in Africa: A case study of four selected countries with different social economic development	Preschool children (<5 years) and Adults (≥18 years)	Population	Malawi, Kenya, Ghana, and South Africa
2007	Mburu & Okello	The Prevalence of Under-Nourished Child Obese Mother Phenomenon in Rural Areas: Evidence from Central Province of Kenya	Preschool children (1 to 5 years) and Women (15 to 49 years)	Household	Kenya
2021	McClaren	The Relationship between Hemoglobin Level and Socio-economic Indicators among Women of Childbearing Age in South Africa: A Secondary Analysis of DHS Data	Women (15 to 49 years)	Individual	South Africa
2020	Mchiza et al.	Body Image and the Double Burden of Nutrition among South Africans from Diverse Sociodemographic Backgrounds: SANHANES-1	Adults (≥15 years)	Population	South Africa
2021	Meah et al.	Prevalence and drivers of individual-level double burden of malnutrition among under-5 children in Kenya	Preschool children (<5 years)	Individual	Kenya
2016	Meenakshi	Trends and patterns in the triple burden of malnutrition in India	General Population	Population	India
2015	Meko et al.	School environment, socioeconomic status, and weight of children in Bloemfontein, South Africa	Adolescents (13 to 15 years)	Population	South Africa
2018	Melaku et al.	Trends of mortality attributable to child and maternal undernutrition, overweight/obesity and dietary risk factors of noncommunicable diseases in sub-Saharan Africa, 1990–2015: findings from the Global Burden of Disease Study 2015	All age groups and both sexes	Population	SSA
2021	Meller et al.	Double Burden of Malnutrition and Inequalities in the Nutritional Status of Adults: A Population-Based Study in Brazil, 2019	Adults (18 to 59 years)	Population	Brazil
2005	Mendez et al.	Overweight exceeds underweight among women in most developing countries	Women (20 to 49 years)	Population	Developing countries
2021	Mendoza-Quispe et al.	Urbanization in Peru is inversely associated with double burden of malnutrition: Pooled analysis of 92,841 mother–child pairs	Preschool children (<5 years) and Women (15 to 49 years)	Household	Peru
2019	Menon & Peñalvo	Actions Targeting the Double Burden of Malnutrition: A Scoping Review	-	Individual/ household/ population	Developing countries
2021	Mertens & Peñalvo	The Burden of Malnutrition and Fatal COVID-19: A Global Burden of Disease Analysis	-	Population	172 countries
2020	Miller et al.	Defining diet quality: a synthesis of dietary quality metrics and their validity for the double burden of malnutrition	-	Population	Multicountry

2018	Min et al.	Double burden of diseases worldwide: coexistence of Undernutrition and overnutrition-related noncommunicable chronic diseases	General Population	Population	Multicountry
2020	Miranda et al.	Malnutrition in all its forms and socioeconomic status in Bolivia	Preschool children (<5 years) and Women (15 to 49 years)	Population	Bolivia
2007	Mispireta et al.	Transición nutricional en el Perú, 1991-2005	Preschool children (<5 years) and Women (15 to 49 years)	Household	Peru
2018	Mitra et al.	Demographic, Socio-economic and Lifestyle Determinants of Under- and Over-nutrition among Bangladeshi Adult Population: Results from a Large Cross-Sectional Study	Adults (≥35 years)	Population	Bangladesh
2020	Mittal & Vollmer	The Double Burden of Malnutrition in Bangalore, India	Children (0 to 14 years) and Women (15 to 59 years)	Population /Household	India
2015	Miyoshi et al.	Nutritional Status of Children and their mothers, and its Determinants in Urban Capital and Rural Highland in Papua New Guinea	Preschool children (<6 to 59 months) and Women (20 to 40 years)	Population	Papua New Guinea
2021	Mohamad et al.	Thinness, overweight and obesity among 6- to 17-year-old Malaysians: secular trends and sociodemographic determinants from 2006 to 2015	Children (6 to 17years),	Population	Malaysia
2015	Mohsena et al.	Maternal nutritional status (as measured by height, weight and BMI) in Bangladesh: trends and socio-economic association over the period 1996 to 2007	Women (15 to 59 years)	Population	Bangladesh
2015	Mondal et al.	Prevalence of double burden of malnutrition among urban school going Bodo children aged 5-11 years of Assam, Northeast India	Children (5 to 11 Years)	Population	India
2020	Montaño	Asociación entre la inseguridad alimentaria y la doble carga de malnutrición: revisión sistemática	-	Individual /household	Developing Countries
2014	Monteiro et al.	Bolsa Família: insegurança alimentar e nutricional de crianças menores de cinco anos	Preschool children (<5 years)	Population	Brazil
2021	Moraes et al.	Food addiction symptoms and metabolic changes in children and adolescents with the double burden of malnutrition	Children (7 to 16 years)	Individual	Brazil
2019	Morera	Los determinantes sociales de la doble y triple carga de malnutrición en los hogares Colombianos	Preschool children (<5 years) and Women (13 to 49 years)	Household	Colombia

2020	Morgan & Fanzo	Nutrition Transition and Climate Risks in Nigeria: Moving Towards Food Systems Policy Coherence	-	Population	Nigeria
2021	Mostafa et al.	Changing trends in nutritional status of adolescent females: a cross-sectional study from urban and rural Bangladesh	Adolescent females (10 to 19 years)	Population	Bangladesh
2017	Mudogo	Vulnerability of Urban Poor Women and Children to the Triple Burden of Malnutrition: A Scoping Review of the Sub-Saharan Africa Environment	urban poor women and children	Population /Household	SSA region
2018	Muhammad	Obesity as the Sequel of Childhood Stunting: Ghrelin and GHSR Gene Polymorphism Explained	-	Individual (Life course)	-
2019	Munene et al.	Dietary Practices and Nutrition Status of Adolescents Attending Day Secondary Schools in Kenya	Adolescents (14 to 17 years)	Population	Kenya
2015	Murcia-Moreno & Cortés-Osorio	Doble carga nutricional y aproximación a sus determinantes sociales en Caldas, Colombia	0 to 64 years	Individual /Population	Colombia
2015	Muros et al.	Double burden of malnutrition in rural and urban Guatemalan schoolchildren	Children (aged 5 to 18 years)	Population	Guatemala
2016	Murta	Fatores associados a desfechos nutricionais em mães e crianças Brasileiras.	Preschool children (<5 years) and their mothers	Household	Brazil
2018	Muttarak	Too few nutrients and too many calories: climate change and the double burden of malnutrition in Asia	General Population	Population/ Household /Individual	Asia
2021	Nakphong & Beltrán-Sánchez	Socio-economic status and the double burden of malnutrition in Cambodia between 2000 and 2014: overweight mothers and stunted children	Preschool children (<5 years) and Women (15 to 49 years)	Household	Cambodia
2017	Nasreddine et al.	Review of the nutrition situation in the Eastern Mediterranean Region	Preschool children (<5 years), school-age children (12 to 15 years) and Women (15 to 49 years)	Population	Eastern Mediterranean Region
2021	NCD Risk Factor collaborations (NCD-RisC)	Heterogeneous contributions of change in population distribution of body mass index to change in obesity and underweight	Adults (20 to 79 years)	population	Multicountry
2020	Neufeld et al.	Global Landscape of Malnutrition in Infants and Young Children	Preschool children (<5 years)	Household	Multicountry
2017	Ng	Quantifying a Buzzword: the “Double Burden” of Malnutrition	General	Population	Multicountry
2013	Nguyen et al.	Double burden of undernutrition and overnutrition in Vietnam in 2011: results of the SEANUTS study in 0·5–11-year-old children	Children (0·5 to 11·9 years)	Population	Vietnam

2021	Nguyen et al.	The double burden of malnutrition in India: Trends and inequalities (2006–2016)	Preschool children (<5 years) and Women (15 to 54 years)	Population	India
2020	Nicholaus et al.	Dietary Practices, Nutrient Adequacy, and Nutrition Status among Adolescents in Boarding High Schools in the Kilimanjaro Region, Tanzania	Adolescents (16 to 19 years)	Population	Tanzania
2014	Norris et al.	Africa in Transition: Growth Trends in Children and Implications for Nutrition	Preschool children (<5 years)	Population	Africa
2008	Ntandou & Delisle	Physical Activity and Socioeconomic Status Explain Rural-Urban Differences in Obesity: A Cross-Sectional Study in Benin (West Africa)	Adults (25 to 60 years)	Population	Benin
2020	Nugent et al.	Economic effects of the double burden of malnutrition	-	Population	Developing countries
2012	Oddo et al.	Predictors of maternal and child double burden of malnutrition in rural Indonesia and Bangladesh	Preschool children (<5 years) and Women (15 to 49 years)	Household	Bangladesh and Indonesia
2020	Okubo et al.	Risk factors modifying the double burden of malnutrition of young children in Thailand	Preschool children (<5 years)	Individual	Thailand
2016	Oladoyinbo et al.	Breastfeeding pattern and nutritional status of children under two years in Oshogbo Local Government Area Osun State Nigeria	Preschool children (<24 months) and Women (≥15 years)	Household	Nigeria
2015	Oladoyinbo & Ekerette	Double Burden of Malnutrition Among Undergraduates in Ogun State Nigeria	Adults (≥20 years)	Population	Nigeria
2014	Olszowy	understanding the impact of maternal body composition on child nutritional status within a household sociobehavioral context in a peri-urban Ni-Vanuatu community	Children and Adults (0 to 86 years)	Population /Household	Vanuatu
2017	Omar et al.	Nutritional status of Adolescents in Benghazi	adolescents (14 to 19 years)	Population	Libya
2019	Onyango et al.	Regional Overview on the Double Burden of Malnutrition and Examples of Program and Policy Responses: African Region	Preschool children (<5 years) and adolescents	Population	Sub-Saharan Africa
2015	Onyiruka et al.	Body mass index of Nigerian adolescent urban secondary school girls	Adolescent Females (10 to 19 years)	Population	Nigeria
2010	Opara et al.	Prevalence of stunting, underweight and obesity in school aged children in Uyo, Nigeria	Children (2.5 to 14 years)	Population	Nigeria
2011	Ornellas et al.	Coexistence of obesity and anemia in children between 2 and 18 years of age in Mexico	children (2 to 18 years)	Individual	Mexico

2019	Ortiz et al.	Malnutrición infantil en Cochabamba, Bolivia: la doble carga entre la desnutrición y obesidad	Preschool children (<5 years)	Individual	Bolivia
2017	Ozoilo	Effect of nutrition intervention on the nutritional knowledge and status of adolescents: a rural-urban comparison in Plateau state	Adolescents (10 to 17 years)	Population	Nigeria
2021	Panda et al.	Double burden of malnutrition among adolescents in India: Evidence from large scale surveys	Adolescents (10 to 19 years)	Population	India
2018	Parra et al.	Maternal and familial correlates of anthropometric typologies in the nutrition transition of Colombia, 2000–2010	Preschool children (<5 years) and Women (18 to 49 years)	Household	Colombia
2021	Parra et al.	Prevalence and Determinants of Underweight, Overweight, and Obesity: A Cross-Sectional Study of Sociodemographic, Dietary, and Lifestyle Factors Among Adolescent Girls in Jutiapa, Guatemala	Adolescent females (12 to 17 years)	Population	Guatemala
2015	Parra et al.	The nutrition transition in Colombia over a decade: a novel household classification system of anthropometric measures	Preschool children (<5 years) and Women (18 to 49 years)	Household	Colombia
2018	Parra et al.	Multilevel correlates of household anthropometric typologies in Colombian mothers and their infants	Preschool children (<5 years) and Women (18 to 49 years)	Household	Colombia
2017	Partap et al.	The Use of Different International References to Assess Child Anthropometric Status in a Malaysian Population	Children (6 to 18 years)	Population	Malaysia
2019	Passmore & Smith	Dual Burden of Stunting and Obesity Among Elementary School Children on Majuro, Republic of Marshall Islands	children (4 to 16 years)	Population	Republic of Marshall Islands
2017	Patel & Deonandan	Factors associated with body mass index among slum dwelling women in India: an analysis of the 2005–2006 Indian National Family Health Survey	Women (15 to 49 years)	Population	India
2020	Patel et al.	Factors associated with double burden of malnutrition among mother-child pairs in India: A study based on National Family Health Survey 2015–16	Preschool children (<5 years) and Women (15 to 49 years)	Household	India
2012	Patel	Socioeconomic determinants of regional differences in nutritional status of children in India	Preschool children (<2 years)	Population	India
2021	Paul & Chakrabarty	Double Burden of Malnutrition of Mother-Child Pairs in the Same Households: A Case Study from the Bengali Slum Dwellers in West Bengal, India	Children (2 to 10 years) and Women (15 to 49 years)	Household	India

2012	Pawloski et al.	Maternal–child overweight/obesity and undernutrition in Kenya: a geographic analysis	Preschool children (3 to 5 years) and Women (15 to 49 years)	Household	Kenya
2018	Pedro et al.	Gender and socio-demographic distribution of body mass index: The nutrition transition in an adult Angolan community	Adults (15 to 64 years)	Population	Angola
2014	Pedro et al.	Under- and overnutrition and evidence of metabolic disease risk in rural black South African children and adolescents	Children (7 to 15 years)	Population	South Africa
2014	Pei et al.	The evaluation of maternal health in rural western China	Preschool children (<3 years) and Women (15 to 49 years)	Population	China
2020	Peng et al.	Double Burden of Malnutrition in the Asia-Pacific Region— A Systematic Review and Meta-analysis	-	Population	East Asia and Pacific and South Asia
2020	Peng et al.	Double burden of malnutrition in urbanized settled Tibetan communities on the Tibetan plateau	Children (5 to 16 years) and adults (18 to 90 years)	Population /individual	Tibetan Plateau (China)
2019	Pengpid & Peltzer	Prevalence and correlates of underweight and overweight/obesity among women in India: results from the National Family Health Survey 2015–2016	Women (18 to 49 years)	Population	India
2018	Pengpid et al.	The prevalence of underweight and overweight/obesity and its correlates among adults in Laos: a cross-sectional national population based survey, 2013	Adults (18 to 64 years)	Population	Laos
2021	Pengpid & Peltzer	Underweight and overweight/obesity among adults in Afghanistan: prevalence and correlates from a national survey in 2018	Adults (18 to 69 years)	Population	Afghanistan
2020	Pengpid & Peltzer	The prevalence and associated factors of underweight and overweight/obesity among adults in Kenya: evidence from a national cross-sectional community survey	Adults (18 to 69 years)	Population	Kenya
2017	Pengpid & Peltzer	The Prevalence of Underweight, Overweight/Obesity and Their Related Lifestyle Factors in Indonesia, 2014–2015	Adults (18 to 103 years)	Population	Indonesia
2019	Pengpid & Peltzer	Underweight and overweight or obesity and associated factors among school-going adolescents in five ASEAN countries, 2015	Adolescents (13 to 19 years).	Population	Indonesia, Laos, Philippines, Thailand, and Timor-Leste
2018	Perez-Escamilla et al.	Nutrition disparities and the global burden of malnutrition	General Population	Household	LMICs

2011	Perkins & Subramanian	Social Epidemiology of Nutritional Burden Among Children and Adolescents in India	Preschool children (<5 years) and Women (15 to 49 years)	Population /Household	India
2006	Pettifor	Combined stunting and overweight in young children - A paradox?	Preschool children (<5 years)	Individual	South Africa
2018	Piedrahíta	Triple carga de la malnutrición y sus determinantes, en niños menores de 05 años, en Medellín, Colombia	Preschool children (<5 years)	Individual	Colombia
2015	Piarnas	The double burden of under- and overnutrition and nutrient adequacy among Chinese preschool and school-aged children in 2009–2011	Children (2 to 12 years)	Population	China
2015	Piple et al.	Food Choices and Consequences for the Nutritional Status: Insights into Nutrition Transition in an Hospital Community	Children (1 to 9 years)	Population	India
2013	Poh et al.	Nutritional status and dietary intakes of children aged 6 months to 12 years: findings of the Nutrition Survey of Malaysian Children (SEANUTS Malaysia)	children (6 months to 12 years)	Population	Malaysia
2010	Poluru & Mukherjee	Concurrent prevalence of underweight and overweight among women in India: The case of western states	Women (15 to 49 years)	Population	India
2021	Pomati et al.	Trends and patterns of the double burden of malnutrition (DBM) in Peru: a pooled analysis of 129,159 mother–child dyads	Preschool children (<5 years) and Women (15 to 49 years)	Household	Peru
2014	Pomeroy et al.	Stunting, Adiposity, and the Individual-Level “Dual Burden” Among Urban Lowland and Rural Highland Peruvian Children	Children (6 months and 14 years)	Individual	Peru
2020	Popkin et al.	Dynamics of the double burden of malnutrition and the changing nutrition reality	General Population	Population /Household/ Individual	LMICs
2018	Popkin & Reardon	Obesity and the food system transformation in Latin America	-	Household	Latin America and the Caribbean
1996	Popkin et al.	Stunting is Associated with Overweight in Children of Four Nations That Are undergoing the Nutrition Transition	Children (3 to 9 years)	Individual	Russia, Brazil, South Africa, and China
2021	Popkin	To assist the large number of countries facing the double burden of malnutrition we must understand its causes and recognize the need for policies that do no harm	Children and women	Population /Household/ Individual	Latin America (Peru)
2012	Popkin et al.	Global nutrition transition and the pandemic of obesity in developing countries	-	Population /Household/ Individual	Developing Countries

2018	Pradeilles et al.	Addressing malnutrition in low- and middle-income countries with double-duty actions	Mother and child	Population /Household /Individual	LMICs
2015	Pradielles et al.	Socio-economic influences on anthropometric status in urban South African adolescents: sex differences in the Birth to Twenty Plus cohort	Adolescents (17 to 19 years)	Population	South Africa
2018	Prentice	The Double Burden of Malnutrition in Countries Passing through the Economic Transition	Children and adults	Population /Household	LMICs
2017	Priorreschi et al.	Maternal and early life nutrition and physical activity: setting the research and intervention agenda for addressing the double burden of malnutrition in South African children	Preschool children (<5 years) and Women (15 to 49 years)	Individual (Life course)	South Africa
2013	Provo	Towards sustainable nutrition for all: tackling the double burden of malnutrition in Africa	Preschool children (<5 years) and Women (15 to 49 years)	Population/ Household /Individual	Africa
2021	Querol et al.	The Double Burden of Malnutrition and Associated Factors among South Asian Adolescents: Findings from the Global School-Based Student Health Survey	Adolescents (12 to 15 years)	Population	South Asian Countries
2013	Qin et al.	Anemia in relation to body mass index and waist circumference among Chinese women	Women (≥ 20 years)	Individual	China
2021	Rachmah et al.	Predictor of Obese Mothers and Stunted Children in the Same Roof: A Population-Based Study in the Urban Poor Setting Indonesia	Preschool children (2 to 5 years) and their mothers	Household	Indonesia
2016	Rachmi et al.	Are stunted young Indonesian children more likely to be overweight, thin, or have high blood pressure in adolescence?	Preschool children (2 to 4.9 years) followed up to adolescence	Life course	Indonesia
2016	Rachmi et al.	Stunting coexisting with overweight in 2.0–4.9-year-old Indonesian children: prevalence, trends, and associated risk factors from repeated cross-sectional surveys	Preschool children (2 to 4.9 years)	Individual	Indonesia
2016	Rachmi et al.	Stunting, Underweight and Overweight in Children Aged 2.0–4.9 Years in Indonesia: Prevalence Trends and Associated Risk Factors	Preschool children (2 to 4.9 years)	Population	Indonesia
2018	Rachmi et al.	The double burden of malnutrition in Association of Southeast Asian Nations (ASEAN) countries: a comprehensive review of the literature	All	Population/ Household /Individual	Southeast Asian Nations (ASEAN) countries
2019	Rad et al.	Obesity and iron-deficiency anemia in women of reproductive age in northern Iran	women (20 to 35 years)	Individual	Iran

2021	Rahman et al.	Prevalence and determinants of double burden of malnutrition in Bangladesh: evidence from a nationwide cross-sectional survey	Preschool children (<5 years) and Women (15 to 49 years)	Household	Bangladesh
2019	Rahman et al.	The double burden of under- and overnutrition among Bangladeshi women: Socioeconomic and community-level inequalities	Women (15 to 49 years)	Population	Bangladesh
2013	Rahmanian et al.	Dual burden of body weight among Iranian children and adolescents in 2003 and 2010: the CASPIAN-III study	Children (10 to 18 years)	Population	Iran
2019	Rai et al.	Correlates and inequality of underweight and overweight among women of reproductive age: Evidence from the 2016 Nepal Demographic Health Survey	Women (15 to 49 years)	Population	Nepal
2015	Rai	Factors Associated with Nutritional Status Among Adult Women in Urban India, 1998-2006	Women (15 to 49 years)	Population	India
2009	Ramachandran	Maternal & child nutrition: new dimensions of the dual nutrition burden	-	Household /Individual (life course)	Developing countries
2015	Ramachandran	Dual nutritional burden in women: Causes, consequences, and control measures	Women (15 to 49 years)	population	India
2009	Ramesh & Jareena	Overweight Exceeds Underweight among Women in Kerala: An Analysis of Trends and Determinants	Women (15 to 49 years)	Population	India
2006	Ramesh	Malnutrition among Women in Kerala: An Analysis of Trends, Differentials and Determinants	Women (15 to 49 years)	Population	India
2016	Ramirez & Cuadros	La coexistencia de problemas nutricionales en niños menores de 5 años en el Perú 2007-2010	Preschool children (<5 years)	Individual	Peru
2019	Ramírez-Luzuriaga et al.	Malnutrition inequalities in Ecuador: differences by wealth, education level and ethnicity	Children (<5 years), adolescent females (11 to 19 years) and women (20 to 49 years)	Population	Ecuador
2014	Ramirez-Zea et al.	The double burden of malnutrition in indigenous and nonindigenous Guatemalan populations	Preschool children (<5 years) and Women (15 to 49 years)	Household /Individual	Guatemala
2018	Ramos-Padilla et al.	Tipologías nutricionales en población infantil menor de 5 años de la provincia de Chimborazo, Ecuador	Preschool children (<5 years)	individual	Ecuador
2016	Rao	Early Postnatal Stunting Increases Risk of Hypertension among Young Rural Adults from India- Pune Rural Cohort	Preschool children (<5 years) followed up to 8-18 years	Life course	India

2005	Raphaël & Delisle	Households with undernourished children and overweight mothers: Is this a concern for Haiti?	Children (<10 years) and their mothers	Household	Haiti
2018	Raskind et al.	Unhealthy Weight in Indian Families: The Role of the Family Environment in the Context of the Nutrition Transition	Children (5 to 16 years) primary care givers (mothers)	Household	India
2020	Ratsavong et al.	Are dietary intake and nutritional status influenced by gender? The pattern of dietary intake in Lao PDR: a developing country	1 to 89 years	Population	Lao PDR
2013	Ravinshakar	Double Burden of Malnutrition: Indian Regional Perspective	Women (15 to 49 years)	population	India
2012	Ravinshakar	Is India Shouldering a Double Burden of Malnutrition?	Women (15 to 49 years)	population	India
2018	Rawal et al.	Prevalence of underweight, overweight and obesity and their associated risk factors in Nepalese adults: Data from a Nationwide Survey, 2016	Adults (≥18 years)	Population	Nepal
2021	Reardon et al.	The processed food revolution in African food systems and the double burden of malnutrition	-	Population /Household	SSA Region
2020	Rhodes et al.	The Co-Occurrence of Overweight and Micronutrient Deficiencies or Anemia among Women of Reproductive Age in Malawi	Women (15 to 49 years)	Individual	Malawi
2021	Ribeiro-Silva et al.	Time trends and social inequalities in child malnutrition: nationwide estimates from Brazil's food and nutrition surveillance system, 2009–2017	Preschool children (<5 years)	Individual	Brazil
2018	Rivas & Gotthelf	Anemia y estado nutricional en la población de la ciudad de Salta	Children (1 to 15 years), and Adults (≥18 years)	Individual	Argentina
2014	Rivera et al.	Introduction to the double burden of undernutrition and excess weight in Latin America	Preschool children (<5 years) and Women (15 to 49 years)	Household /individual	Latin America
2018	Rivero et al.	Intestinal parasitism and nutritional status among indigenous children from the Argentinian Atlantic Forest: Determinants of enteroparasites infections in minority populations	Children (15 years)	Individual	Argentina
2016	Rodríguez et al.	Estado nutricional, parasitismo intestinal y sus factores de riesgo en una población vulnerable del municipio de Iza (Boyacá), Colombia año 2013	Preschool children (<5 years), pregnant women and elderly people	Population	Colombia
2015	Rodríguez-Zúñiga	Obesidad, sobrepeso y anemia en niños de una zona rural de Lima, Perú	Children (1 to 15 years)	Individual	Peru
2013	Roemling & Qaim	Dual burden households and intra-household nutritional inequality in Indonesia	Adults (≥15 years)	Household	Indonesia
2013	Rojroongwasinkul et al.	SEANUTS: the nutritional status and dietary intakes of 0.5–12-year-old Thai children	Children (0.5 to 12.9 years)	Population	Nepal

2007	Romaguera et al.	Nutritional status of the Andean population of Puna and Quebrada of Humahuaca, Jujuy, Argentina	Children (2 to 9 years), Adolescents (10 to 17 years) and adults (≥ 18 years)	Population	Argentina
2022	Rougeaux et al.	Maternal internal migration and child growth and nutritional health in Peru: an analysis of the demographic and health surveys from 1991 to 2017	Preschool children (< 5 years) and Women (15 to 49 years)	Household / Individual	Peru
2021	Sachdev et al.	Intraindividual coexistence of anthropometric undernutrition and “metabolic obesity” in Indian Children: A paradox that needs action	Children (5 to 19 years)	Individual	India
2020	Sadiq et al.	Geographic and Socioeconomic Disparities in Nutritional Status of Women in Pakistan: Secondary Analysis from Pakistan National Nutrition Survey	Women (≥ 20 years)	Population	Pakistan
2019	Sahargahi et al.	Concurrent Stunting with Overweight in High School Students from Eslamabad-e Gharb City	Elementary and high school students	Individual	Iran
2009	Saibul et al.	Food variety score is associated with dual burden of malnutrition in Orang Asli (Malaysian indigenous peoples) households: implications for health promotion	Children (2 to 9 years) and women (18 to 55 years)	Household	Malaysia
2012	Said-Mohamed et al.	Is Overweight in Stunted Preschool Children in Cameroon Related to Reductions in Fat Oxidation, Resting Energy Expenditure and Physical Activity?	Children (24 to 72 months)	Individual	Cameroon
2008	Said-Mohamed et al.	Determinants of overweight associated with stunting with preschool children in Yaunde Cameroon	Preschool children (24 to 59 months)	Individual	Cameroon
2021	Salama et al.	Double Burden of Malnutrition among Freshman University Students: Determinants and Correlates	Freshman students	Population	Egypt
2021	Salazar-Burgos & Ohyenart	Estado nutricional y condiciones de vida de escolares rurales de Tucumán, Argentina: Un estudio observacional transversal	Children (10.0 to 15.9 years)	Population	Argentina.
2010	Salmen	The Obesity Famine: The Dual Burden of Nutritional Insecurity in Transition	-	Household/ Individual (life course)	Developing countries
2017	Sanchís et al.	Contexts of occurrence of child malnutrition in the district of Villaguay, Entre Ríos, Argentina. A multivariate analysis	Children (3 to 6 years)	Population	Argentina
2019	Sanders et al.	The triple burden of malnutrition in childhood: Causes, policy implementation and recommendations	children (0 to 14 years)	Population	South Africa
2013	Sandjaja et al.	Food consumption and nutritional and biochemical status of 0-5–12-year-old Indonesian children: the SEANUTS study	children (0-5 to 12 years)	Population	Indonesia

2021	Sansón-Rosas et al.	Food insecurity and the double burden of malnutrition in Colombian rural households	Preschool children (<5 years) and Women (15 to 49 years)	Household	Colombia
2016	Santisteban et al.	La doble carga de la malnutrición en Centroamérica: paradoja de la nutrición y el desarrollo	Preschool children (<5 years) and Women (15 to 49 years)	Household	Central America
2021	Santos et al.	The double burden of malnutrition in Peru: An update with a focus on social inequities	Preschool children (<5 years) and Women (18 to 49 years)	Population	Peru
2016	Sarki et al.	Association between socioeconomic status of mothers, food security, food safety practices and the double burden of malnutrition in the Lalitpur district, Nepal	Preschool children (<5 years) and their mothers	Population	Nepal
2014	Sarmeinto et al.	The dual burden of malnutrition in Colombia	Preschool children (<5 years), school aged children (5 to 11 years), adolescents (12 to 19 years), and adults (≥20 years)	Individual /Household	Colombia
2020	Sartorius et al.	Spatial-temporal trends and risk factors for undernutrition and obesity among children (<5 years) in South Africa, 2008–2017: findings from a nationally representative longitudinal panel survey	Preschool children (<5 years)	Population	South Africa
2018	Sassi et al.	Intra-household double burden of malnutrition in a North African nutrition transition context: magnitude and associated factors of child anaemia with mother excess adiposity	Preschool children (<5 years) and Women (20 to 49 years)	Household	Tunisia
2021	Sathiadas et al.	Nutritional status of school children living in Northern part of Sri Lanka	Children 6 to 16 years	Population	Sri Lanka
2005	Sawaya et al.	Association between chronic undernutrition and hypertension	-	Individual (Life course)	Brazil
2003	Sawaya & Roberts	Stunting and future risk of obesity: principal physiological mechanisms	-	Individual (Life course)	Developing countries
2003	Sawaya et al.	The Link Between Childhood Undernutrition and Risk of Chronic Diseases in Adulthood: A Case Study of Brazil	-	Household/ Individual (Life course)	Brazil
2021	Sawe et al.	Tripartite of malnutrition: Co-existence of underweight, overweight and micronutrient deficiency among children in Kisumu County, Kenya	Preschool children (<2 years)	Population	Kenya

2012	Sayeed et al.	Undernutrition and adiposity in children and adolescents: a nutrition paradox in Bangladesh	Adolescents (10 to 18 years)	Population	Bangladesh
2019	Schott et al.	The double burden of malnutrition among youth: Trajectories and inequalities in four emerging economies	Individuals aged 1 to 22 years	Life course/ population	Ethiopia, India, Peru, and Vietnam
2020	Schwinger et al.	Prevalence of Underweight, Overweight, and Obesity in Adults in Bhaktapur, Nepal in 2015–2017	Women (17 to 43 years) and Men (18 to 54 years)	Population	Nepal
2020	Scrinis	Reframing malnutrition in all its forms: A critique of the tripartite classification of malnutrition	-	Individual	Developing countries
2022	Seferedi et al.	Global inequalities in the double burden of malnutrition and associations with globalisation: a multilevel analysis of Demographic and Healthy Surveys from 55 low-income and middle-income countries, 1992–2018	Preschool children (<5 years) and Women (15 to 49 years)	Household	LMICs
2014	Sellam & Bour	Double burden of malnutrition in Morocco coexistence of anemia and obesity among women of childbearing age in the prefecture of Oujda-Angad	Women (20 to 49 years)	Population /Individual	Morocco
2015	Sellam & Bour	Double charge de la malnutrition dans des ménages Marocains: préfecture d'Oujda-Angad	Preschool children (6 to 60 months) and Women (20 to 49 years)	Household	Morocco
2011	Senbanjo et al.	Changes in the Nutritional Status of School Children and Adolescents in Abeokuta, Nigeria between 1983 and 2006	Children (5 to 19 years)	Population	Nigeria
2019	Senbanjo et al.	Co-existence of maternal overweight and obesity with childhood undernutrition in rural and urban communities of Lagos State, Nigeria	Preschool children (0 to 59 months) and their mothers	Household	Nigeria
2019	Senekal et al.	Provincial Dietary Intake Study (PDIS): Prevalence and Sociodemographic Determinants of the Double Burden of Malnutrition in A Representative Sample of 1 to Under 10-Year-Old Children from Two Urbanized and Economically Active Provinces in South Africa	Children (1 to 10 years)	Individual /population	South Africa
2012	Sengupta & Syamala	The Changing Face of Malnutrition in India	Women (15 to 49 years)	Population	India
2014	Sengupta et al.	State-wise Dynamics of the Double Burden of Malnutrition among 15–49 Year-old Women in India: How Much Does the Scenario Change Considering Asian Population-specific BMI Cut-off Values?	Women (15 to 49 years)	Population	India

2020	Sethi et al.	Levels and determinants of malnutrition among India's urban poor women: An analysis of Demographic Health Surveys 2006 and 2016	Women (15 to 49 years)	Individual	India
2007	Shafique et al.	Trends of under- and overweight among rural and urban poor women indicate the double burden of malnutrition in Bangladesh	Preschool children (<5 years) and Women (15 to 49 years)	Population	Bangladesh
2017	Shamah-Levy et al.	Food insecurity and maternal–child nutritional status in Mexico: cross sectional analysis of the National Health and Nutrition Survey 2012	Children (0 to 11 years) and their mothers	Household	Mexico
2020	Sharma & Mondal	Nutritional status and Health related issues among the rural women of Karbi Anglong, Assam (India)	Women (20 to 49 years)	Population	India
2014	Sharma & Mondal	Prevalence of Double Nutrition Burden Among Adolescent Girls of Assam, Northeast India	adolescent girls (10 to 16 years)	Population	India
2008	Shi et al.	Coexistence of anaemia and the metabolic syndrome in adults in Jiangsu, China	Adults (≥20 years)	Individual	China
2020	Shimabuku et al.	Double Burden of Excess Weight and Anemia in Latin American Children up to 2019	children and women	Individual/ household /Population	Latin America
2019	Shinsugi et al.	Double burden of maternal and child malnutrition and socioeconomic status in urban Sri Lanka	Children (5 to 10 years) and their mothers (20 to 59 years)	Population /Household	Sri Lanka
2020	Shretha et al.	Application of single-level and multi-level modeling approach to examine geographic and socioeconomic variation in underweight, overweight and obesity in Nepal: findings from NDHS 2016	Adults (15 to 65 years)	Population	Nepal
2020	Shrimpton	Malnutrition	-	Individual/ household /Population	Developing Countries
2013	Shrimpton & Rokx	The Double Burden of Malnutrition in Indonesia	General Population	Population /household	Indonesia
2012	Shrimpton & Rokx	The double burden of malnutrition: A review of global evidence	General Population	Individual/ household /Population	Developing Countries
2017	Shrivastava et al.	Tackling the public health concern of the double burden of malnutrition on the global scale	Not specified	Individual/ household /Population	Developing Countries

2002	Shukla et al.	Descriptive epidemiology of body mass index of an urban adult population in western India	Adults (≥ 35 years)	Population	India
2020	Siddiqui et al.	The Intertwined Relationship Between Malnutrition and Poverty	General Population	Individual	Developing Countries
2015	Sikdar	Dual burden of malnutrition and hidden hunger among tribal children of North East India	Children (6 to 19 years)	Individual	India
2017	Silva et al.	Relationship between the mothers' nutritional status with that of a child population from São Tomé Príncipe, "Africa"	Children (0 to 6 years) and their mothers	Household	São Tomé and Príncipe
2020	De Jesus Silva et al.	Shifts towards overweight and double burden of malnutrition among socio-economically vulnerable children: a longitudinal ecological analysis of Brazilian municipalities	Preschool children (< 5 years)	Population	Brazil
2012	Singh & Mangang	Anaemia and body mass index (BMI) of fisherwomen inhabiting in Karang island of Loktak Lake, Manipur (India)	Women (15 to 49 years)	Individual	India
2020	Singh et al.	Effect of maternal nutritional status on children nutritional status in India	Preschool children (< 5 years) and Women (15 to 49 years)	Household (Population)	India
2015	Singh & Kumari	Female facing dual burden of malnutrition: A brief study of Bhagalpur	Women (20 to 50 years)	Population	India
2013	Singh & Devi	Nutritional Status among the Urban Meitei Children and Adolescents of Manipur, Northeast India	Children (8 to 18 years)	Population	India
2021	Singh et al.	Prevalence and Determinants of Obesity/overweight and Undernutrition Among School Going Adolescents 10 to 17 years in Rural Area of South India.	Adolescents (10 to 17 years)	Population	India
2007	Singh et al.	Prevalence of obesity, physical inactivity and undernutrition, a triple burden of diseases during transition in a developing economy	Adults (≥ 25 years)	Population	India
2021	Sirikiyi et al.	Anthropometric indices and cardiometabolic risk factors in a Ghanaian adolescent population	Adolescent (16 to 20 years)	Population	Ghana
2014	Sivasankaran	Nutrition Paradox and the evolving health crisis in the State of Kerala, India	Preschool children (< 5 years) and Women (15 to 49 years)	Life course	India
2019	Smita Asthana et al.	Comparison of underweight, overweight and obesity prevalence among Indian women in different national health surveys	Women (15 to 49 years)	Population	India
2015	Smuts et al.	Socio-demographic profiles and anthropometric status of 0- to 71-month-old children and their caregivers in rural districts of the Eastern Cape and KwaZulu-Natal provinces of South Africa	Children (0 to 71 months) and their caregivers	Household	South Africa

2020	Song et al.	Double Burden of Malnutrition among Chinese Women of Reproductive Age and Their Social Determinants	women (15 to 49 years)	Population	China
2018	Song et al.	National trends in stunting, thinness and overweight among Chinese school-aged children, 1985–2014	children (7 to 18 years)	Population	China
2017	Soni & Singh	The Nutrition Paradox in India: The Coexistence of Undernutrition and Overnutrition	-	Population	India
2019	Sousa et al.	Prevalence of stunting and overweight/obesity among Brazilian children according to different epidemiological scenarios: systematic review and meta-analysis	Children (0 to 48 months)	Population	Brazil
2005	Steyn et al.	Secondary anthropometric data analysis of the national food consumption survey in South Africa: The double burden	Children (12 to 108 months)	Population	South Africa
2011	Steyn et al.	What is the nutritional status of children of obese mothers in South Africa?	Children (1 to 9 years) and their mothers (16 to 35 years)	Household	South Africa
2009	Subramanian et al.	Do burdens of underweight and overweight coexist among lower socioeconomic groups in India?	Women (15 to 49 years)	Population	India
2007	Subramanian et al.	Income inequality and the double burden of under- and overnutrition in India	Women (15 to 49 years)	Population	India
2006	Subramanian & Smith	Patterns, distribution, and determinants of under- and overnutrition: a population-based study of women in India	Women (15 to 49 years)	Population	India
2020	Sunuwar et al.	Prevalence and factors associated with double and triple burden of malnutrition among mothers and children in Nepal: evidence from 2016 Nepal demographic and health survey	Preschool children (<5 years) and Women (15 to 49 years)	Household	Nepal
2018	Swain & Chowdhury	Trends of nutritional status among rural adults in six states of India: findings from national survey data	Adults (15 to 54 years)	Population	India
2019	Swinburn et al.	The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission report	-	Population	Global
2016	Symington et al.	The relationship between stunting and overweight among children from South Africa: Secondary analysis of the National Food Consumption Survey – Fortification Baseline I	Children (36 to 119.9 months) and women (16 to 35 years)	Individual	South Africa
2021	Sznajder et al.	Labor migration is associated with lower rates of underweight and higher rates of obesity among left-behind wives in rural Bangladesh: a cross-sectional study	Women (20 to 65 years)	Population	Bangladesh
2016	Tabatabaei et al.	Iron profile in obese compared to normal children	Children (5 to 15 years)	Individual	Iran
2009	El Taguri et al.	Stunting is a major risk factor for overweight: results from national surveys in 5 Arab countries	Preschool children (<5 years)	Individual	Djibouti, Libyan Arab

					Jamahiriya, Morocco, Syrian Arab Republic, and Yemen
2021	Takeuchi et al.	Has the double burden of malnutrition reached pupils in rural western Kenya?	Children (5 to 18 years)	Population	Kenya
2018	Taki	Malnutrition among children in Indonesia: It is still a problem	Children	Population	Indonesia
2020	Taklual et al.	Double Burden of Malnutrition among Female Adolescent Students in Bahir Dar City, Amhara, Ethiopia	Female adolescents (14 to 19 years)	Population	Ethiopia
2021	Tallman et al.	The “Double Burden of Malnutrition” in the Amazon: dietary change and drastic increases in obesity and anemia over 40 years among the Awajún	Adults (18 to 65 years)	Population	Peru
2016	Ole Tankoi	Determinants of Malnutrition among Children Aged 6-59 Months in Trans-Mara East Sub-County, Narok County, Kenya	Preschool children (6 to 59 months)	Population	Kenya
2019	Tanwi et al.	Double burden of malnutrition among ever-married women in Bangladesh: a pooled analysis	Women (15 to 49 years)	Population	Bangladesh
2020	Tareke & Abate	Nutritional paradox in Ethiopian women: Multilevel multinomial analysis	Women (15 to 49 years)	Population	Ethiopia
2014	Tebekaw et al.	The burden of underweight and overweight among women in Addis Ababa, Ethiopia	Women (15 to 49 years)	Population	Ethiopia
2018	Teferi et al.	Overweight and Undernutrition in the Cases of School-Going Adolescents in Wolaita Sodo Town, Southern Ethiopia: Cross-Sectional Study	Adolescents (10 to 19 years)	Population	Ethiopia
2020	Temponi & Velasquez-Melendez	Prevalence of double burden on malnutrition at household level in four Latin America countries	Preschool children (<5 years) and Women (15 to 49 years)	Household	Brazil, Bolivia, Colombia, and Peru.
2021	Tesfaw & Muluneh	Wealth index and other behavioral and sociodemographic characteristics associated with body mass index in Ethiopia	Adults (15 to 49 years)	population	Ethiopia
2016	Thakur & Gautam	Co-existence of undernutrition and obesity: A cross sectional study among girls and boys below 20 years of age	Children (<20 years)	Population	India
2019	Thompson et al.	Water, food, and the dual burden of disease in Galápagos, Ecuador	Children and Adults (0 to 59 years)	Individual /Household	Ecuador
2016	Thow et al.	Policy for the complex burden of malnutrition in Africa: a research agenda to bring consumers and supply chains together	Preschool children (<5 years) and Women (15 to 49 years)	Individual/ Household /Population	Africa

2016	Thow et al.	Toward Food Policy for the Dual Burden of Malnutrition: An Exploratory Policy Space Analysis in India	Children adolescents and adults	Population	India
2018	Thu et al.	Nutritional status: the trends of preschool children aged 10–60 months in the north of Vietnam	Preschool children (10 to 60 months)	Individual	Vietnam
2012	Timæus	Stunting and obesity in childhood: a reassessment using longitudinal data from South Africa	Children (0.5 to 12 years)	Individual	South Africa
2012	Toriola et al.	Overweight, obesity and underweight in rural black South African children	Children (10 to 16 years)	Population	South Africa
2020	Torto & Brownell	Role of food aid and assistance in addressing the double burden of malnutrition in Ghana: a qualitative policy analysis	-	Population	Ghana
2021	Traissac et al.	Gender inequalities in excess adiposity and anaemia combine in a large double burden of malnutrition gap detrimental to women in an urban area in North Africa	Adults (20 to 49 years)	Individual	Tunisia
2020	Traore et al.	Coexistence of Mother Overweight and Stunting Children Within the Same Household in West Africa: Associated Factors	Preschool children (<5 years) and Women (15 to 49 years)	Household	West Africa (12 countries)
2008	Tuan et al.	Body mass index (BMI) dynamics in Vietnam	2 to 65 years	Population	Vietnam
2019	Tumas et al.	Nutrition transition profiles and obesity burden in Argentina	Adults (≥18 years)	Population	Argentina
2021	Tunkara-Bah et al.	Dietary factors associated with being overweight and obese among school-going adolescents in Region One, The Gambia	Adolescents (13 to 19 years)	Population	Gambia
2019	Tuyet et al.	Thực trạng gánh nặng dinh dưỡng kép và một số đặc điểm thói quen ăn uống của trẻ mầm non tại xã Nam Hồng, huyện Đông Anh, Hà Nội năm 2018	Preschool children (24 to 60 months)	population	Vietnam
2018	Tydeman-Edwards et al	Obesity, undernutrition, and the double burden of malnutrition in the urban and rural southern Free State, South Africa	Children (<7 years old) and adults (25 to 64 years)	Population	South Africa
2014	Tzioumis & Adair	Childhood dual burden of under- and overnutrition in low- and middle-income countries: A critical review	Children (<18 years)	Population/ household /individual	Low- and middle-income countries
2016	Tzioumis	The dual burden of malnutrition in children in low- and middle-income countries	Preschool children (<5 years)	Population	40 Low- and middle-income countries
2016	Tzioumiz et al.	Prevalence and trends in the childhood dual burden of malnutrition in low- and middle-income countries, 1990–2012	Preschool children (<5 years)	Population /Individual	LMICs
2014	Uauy et al.	Addressing the Double Burden of Malnutrition with a Common Agenda	-	Population/ Household /individual	Developing countries

2011	Uauy et al.	How can the Developmental Origins of Health and Disease (DOHaD) hypothesis contribute to improving health in developing countries	-	Individual /household	Developing countries
2014	Urke et al.	Trends in stunting and overweight in Peruvian pre-schoolers from 1991 to 2011: findings from the Demographic and Health Surveys	Preschool children (<5 years)	Population	Peru
2013	Usfar et al.	The Existence of Double-Burden of Malnutrition in the Same Households in Eastern Indonesia: Analysis using Global vs. Alternative Asian BMI Cut-off Points	Preschool children (<5 years) and Women (15 to 49 years)	household	Indonesia
2009	Uthman	Patterns, distribution, and determinants of under- and overnutrition among women in Nigeria: a population-based analysis	Women (15 to 49 years)	Population	Nigeria
2019	Uzêda	Factors associated with the double burden of malnutrition among adolescents, National Adolescent School-Based Health Survey (PENSE 2009 and 2015)	Adolescents (13 to 17 years)	Individual	Brazil
2017	Vaezghasemi	Nutrition transition and the double burden of malnutrition in Indonesia	Adults (17 to 67 years)	Household	Indonesia
2014	Vaezghasemi et al.	The Effect of Gender and Social Capital on the Dual Burden of Malnutrition: A Multilevel Study in Indonesia	Children and Adults (>2 years)	Household	Indonesia
2001	Van der Sande et al.	Obesity and Undernutrition and Cardiovascular Risk Factors in Rural and Urban Gambian Communities	Adults (≥15 years)	Population	Gambia
2014	Van Niekerk et al.	The prevalence of underweight, overweight and obesity in a multiracial group of urban adolescent schoolchildren in the Cape Metropole area of Cape Town	Adolescent (13 to 18 years)	Population	South Africa
2008	VanderKloet	Dual Burden of Malnutrition in Andhra Pradesh, India: Identification of Independent Predictors for Underweight and Overweight in Adolescents with Overweight Mothers	Adolescents (133 to 156 months)	Household	India
2012	Varela-Silva et al.	The Nutritional Dual-Burden in Developing Countries – How is it Assessed and What Are the Health Implications?	-	Population/ Household /Individual	Mexico
2017	Vargas	Análisis de la asociación entre la doble carga nutricional en el hogar, con la situación de seguridad alimentaria y algunos determinantes socioeconómicos de los hogares Colombianos, a partir de los resultados de la encuesta nacional de la situación nutricional, 2010	Preschool children (<5 years) and Women (15 to 49 years)	Household	Colombia

2019	Varghese & Stein	Malnutrition among women and children in India: limited evidence of clustering of underweight, anemia, overweight, and stunting within individuals and households at both state and district levels	Preschool children (<5 years) and Women (15 to 49 years)	Individual /Household	India
2011	Bagni & Veiga	Anemia ferropriva e obesidade: novos olhares para antigos problemas	-	Individual	Brazil
1999	Velaâsquez-Meleânde et al.	Relationship between stature, overweight and central obesity in the adult population in São Paulo, Brazil	Adults (20 to 64 years)	Individual	Brazil
2014	Victora & Rivera	Optimal child growth and the double burden of malnutrition: research and programmatic implications	Not specified	Individual	LMICs
2019	Villena-Esponera et al.	Food Insecurity and the Double Burden of Malnutrition of Indigenous Refugee Épera Siapidara	Individuals (1 to 70 years)	household	Ecuador
2020	Viswanathan & Agnihotri	Double burden of malnutrition in India: Decadal changes among adult men and women	Adults (15 to 54 years)	Population	India
2011	Vorster et al.	The Nutrition Transition in Africa: Can It Be Steered into a More Positive Direction?	All age groups	Individual /Population	Africa
2016	Vorster & Bourne	The Nutrition Transition in Developing Countries	-	Individual /Population	Developing Countries
2020	Vuong	The impact of food environment on diet quality and nutritional outcomes among three populations of adults living along the urban – peri urban – rural transect in Vietnam	Preschool children (<5 years) and Adults (18 to 66 years)	Population	Vietnam
2016	Waldrop et al.	Perceptions of Body Size in Mothers and Their Young Children in the Galapagos Islands	Preschool children (<6 years) and Women (19 to 37 years)	Household	Ecuador
2007	Walker et al.	The association between early childhood stunting and weight status in late adolescence	Infants 2 years followed up to adolescence.	Individual	Jamaica
2020	Wariri et al.	Population and Individual-Level Double Burden of Malnutrition Among Adolescents in Two Emerging Cities in Northern and Southern Nigeria: A Comparative Cross-Sectional Study	adolescents (10 to 18 years)	Population /Individual	Nigeria
2009	Warraich et al.	Prevalence of Obesity in School-Going Children of Karachi	Children (11 to 17 years)	Population	Pakistan
2019	Wei et al.	Changes in patterns of the double burden of undernutrition and overnutrition in Nepal over time	Preschool children (<5 years) and Women (15 to 49 years)	Population	Nepal
2012	Wells	Obesity as Malnutrition: The Role of Capitalism in the Obesity Global Epidemic	-	Individual (Life course) /population	Global

2013	Wells	The Dual Burden and Increased Cardiovascular Risk in South Asians: Evolutionary Biology Meets Political Economy (Human Malnutrition: Twin Burdens of Undernutrition and Overnutrition)	-	Individual/ household /population	South Asian
2018	Wells et al.	The Dual Burden of Malnutrition Increases the Risk of Cesarean Delivery: Evidence from India	Women (15 to 49 years)	Individual	India
2021	Wells	Double burden of malnutrition in thin children and adolescents: low weight does not protect against cardiometabolic risk	Children and adolescents	Individual	India
2020	Wells	The double burden of malnutrition: aetiological pathways and consequences for health	-	Individual (Life course)	-
2019	Wells	Using Body Composition Assessment to Evaluate the Double Burden of Malnutrition	-	Individual	-
2014	Wendt et al.	Obese women less likely to have low serum ferritin, Nicaragua	Women (15 to 49 years)	Individual	Nicaragua
2020	Were et al.	Fertility is a key predictor of the double burden of malnutrition among women of child-bearing age in sub-Saharan Africa	Women (15 to 49 years)	Population	SSA (34 countries)
2018	White et al.	The Double Burden of Malnutrition: A Latin American perspective	-	Population/ Household/ Individual	Latin America
2019	Whitehall et al.	Maternal nutrition, social correlates, and obstetric outcomes in northern Mymensingh, Bangladesh	Mothers	Individual	Bangladesh
2019	Wibaek et al.	Body mass index trajectories in early childhood in relation to cardiometabolic risk profile and body composition at 5 years of age	Preschool children (<5 years)	Individual (Life course)	Ethiopia
2015	Wibowo et al.	Relationship between intra-household food distribution and coexistence of dual forms of malnutrition	Preschool children (2 to 5 years) and Women (18 to 40 years)	Household	Indonesia
2020	Williams et al.	Intraindividual double burden of overweight or obesity and micronutrient deficiencies or anemia among women of reproductive age in 17 population-based surveys	Women (15 to 49 years)	Individual	Multicountry
2019	Williams et al.	Using Trials of Improved Practices to identify practices to address the double burden of malnutrition among Rwandan children	Preschool children (5 to 59 months) and their caregivers	Population	Rwanda
2011	Wilson	Health indicators in double burdened urban Maya children and mothers	Children (7 to 9 years) and their mothers	Individual	Mexico
2017	Winichagoon & Margetts	The double burden of malnutrition in low- and middle-income countries	Preschool children (<5 years) and Women (15 to 49 years)	Population	LMIC

2013	Winichagoon	Thailand nutrition in transition: situation and challenges of maternal and child nutrition	Preschool children (<5 years) and Women	Population /Individual	Thailand
2015	Winichagoon	Transition of maternal and child nutrition in Asia: implications for public health	-	Population/ Individual	Asia
2014	Wojcicki	The double burden household in sub-Saharan Africa: maternal overweight and obesity and childhood undernutrition from the year 2000: results from World Health Organization Data (WHO) and Demographic Health Surveys (DHS)	Preschool children (<5 years) and Women (15 to 49 years)	Household	Sub-Saharan Africa countries
2015	Wong et al.	Double-burden of malnutrition among the indigenous peoples (Orang Asli) of Peninsular Malaysia	Preschool children (3 to 59 months) and Women (15 to 55 years)	Population /Household	Malaysia
2020	Choi	Factors associated with double burden of malnutrition in the same households in Pakistan	Preschool children (<5 years) and Women (15 to 49 years)	Household	Pakistan
2019	Mbuya et al.	Addressing the Double Burden of Malnutrition in ASEAN	All age groups	Population	Southeast Asian Nations (ASEAN)
2017	World Health Organization	Double-duty actions for nutrition: Policy Brief	-	Population/ Household /individual	Developing countries
2016	World Health Organization	The double burden of malnutrition. Policy brief.	-	Population/ Household /individual	Developing countries
2020	World Health Organization	The Double Burden of Malnutrition: Priority actions on Ending Childhood Obesity	Children (0 to 19 years) and Women (20 to 49 years)	Individual and household	Southeast Asia
2018	Yan et al.	Trend in the nutritional status of children aged 2-7 years in Luoding city, China: A panel study from 2004 to 2013	Children (2 to 7 years)	Population	China
2013	Yang & Huffman	Nutrition in pregnancy and early childhood and associations with obesity in developing countries	-	Life course	Developing countries
2018	Yang et al.	Prevalence of underweight and overweight among young adolescents aged 12–15 years in 58 low-income and middle-income countries	Adolescents (12 to 15 years)	Population	58 LMICs
2020	Yaya & Ghose	Change in nutritional status among women of childbearing age in India (1998–2016)	women (15 to 49 years)	Population	India
2019	Yeasmin et al.	Factors influencing double burden of malnutrition among pre-school children in Bangladesh: Survey in Rajshahi City	Children (36 to 71 months)	Population	Bangladesh

2018	Bhandari	Nutritional status and its associated factors among adult population residing in Dharan sub metropolitan city	Adults (18 to 59 years)	population	Nepal
2019	You & Du	The Chinese Dual Malnutrition: Facts, Challenges and Perspectives	Children (0 to 18 years)	Population	China
2019	Young et al.	A Double-Edged Sword? Improvements in Economic Conditions over a Decade in India Led to Declines in Undernutrition as Well as Increases in Overweight among Adolescents and Women	Women (15 to 49 years)	Population	India
2010	Haemamalar et al.	Nutritional Status of Orang Asli (Che Wong Tribe) Adults in Krau Wildlife Reserve, Pahang	Adults (≥ 15 years)	Population	Malaysia
2019	Zárate-Ortiz et al.	Dietary Patterns and the Double Burden of Malnutrition in Mexican Adolescents: Results from ENSANUT-2006	Adolescents (12 to 19 years)	Population /Individual	Mexico
2014	Zeba et al.	Dietary patterns and physical inactivity, two contributing factors to the double burden of malnutrition among adults in Burkina Faso, West Africa	Adults (25 to 60 years)	Individual	Burkina Faso
2012	Zeba et al.	The double burden of malnutrition and cardiometabolic risk widens the gender and socio-economic health gap: a study among adults in Burkina Faso (West Africa)	Adults (25 to 60 years)	Individual	Burkina Faso
2006	Zhai & Wang	The double burden of malnutrition in China, 1989 to 2000	Children (2 to 5 years) and Adults (18 to 45 years)	Population	China
2018	Zhang et al.	Double burden of malnutrition among children under 5 in poor areas of China	Preschool children (< 5 years)	Population	China
2016	Zhang et al.	Patterns and Determinants of Double-Burden of Malnutrition among Rural Children: Evidence from China	Children (< 18 years)	Individual	China
2021	Zhang et al.	Prevalence of thinness, overweight and obesity among Tibetan adolescents aged 12–17 years	Adolescents (12 to 17 years)	Population	China
2021	Zhang et al.	Stunting, wasting, overweight and their coexistence among children under 7 years in the context of the social rapidly developing: Findings from a population-based survey in nine cities of China in 2016	Children (<7 years)	Individual	China
2015	Zhang et al.	The double burden of overweight and thinness among children and adolescents in Shandong China	Children (7 to 18 years)	Population	China
2015	Zhao et al.	Obesity and iron deficiency: a quantitative meta-analysis	-	Individual	Global
2020	Zhou et al.	Double Burden of Malnutrition: Examining the Growth Profile and Coexistence of Undernutrition, Overweight, and Obesity among School-Aged Children and Adolescents in Urban and Rural Counties in Henan Province, China	Children (6 to 18 years)	Population	China

2008	Zimmermann et al.	Adiposity in women and children from transition countries predicts decreased iron absorption, iron deficiency and a reduced response to iron fortification	Children (5 to 16 years) and Women (18 to 50 years)	Individual	Thailand, Morocco, and India
2016	Zou et al.	The Rural-Urban Difference in BMI and Anemia among Children and Adolescents	Children (7 to 17 years)	Population	China

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