

Table S1. Search strategy for Medline.

Search terms	
1. Population	(Preschool OR Infants OR Toddlers OR Children OR Childhood)
2. Outcome	(Obesity OR Overweight OR "Body composition" OR "Body constitution" OR "Weight status" OR Anthropometr *)
3. Study design	(Prevalence OR Trend)
4. Types of studies	(Observat * OR "Cross-sectional" OR Longitudinal NOT (Review OR Intervention OR Experimental))
5. Location	(Russia OR Germany OR Turkey OR France OR "United Kingdom" OR Italy OR Spain OR Ukraine OR Poland OR Romania OR Kazakhstan OR Netherlands OR Belgium OR Greece OR Czech Republic OR Portugal OR Sweden OR Hungary OR Azerbaijan OR Belarus OR Austria OR Switzerland OR Bulgaria OR Serbia OR Denmark OR Finland OR Slovakia OR Norway OR Ireland OR Croatia OR Bosnia and Herzegovina OR Georgia OR Moldova OR Armenia OR Lithuania OR Albania OR Macedonia OR Slovenia OR Latvia OR Kosovo OR Estonia OR Cyprus OR Montenegro OR Luxembourg OR Malta OR Iceland OR Andorra OR Liechtenstein OR Monaco OR "San Marino" OR "Vatican city" OR Europe * [title])
1 AND 2 AND 3 AND 4 AND 5	
Truncation symbol: * = all possible word endings included.	

Table S2. Characteristics of studies included in the systematic review ($n = 32$).

Country	Data Collection Years	First Author	Design. Cole criteria	National or Regional Data	Age Range	Sample Size			Prevalence of Overweight and Obesity (%)			Prevalence of Obesity (%)	
						All	girls	boys	All	boys	girls	All	boys
Belgium	2007–2008	Wijnhoven TMA ¹	CS. Cole, 2000	Regional (Flanders)	6	49536	24465	25071	13.0	11.2	14.9	3.3	2.9
Belgium	2007–2008	Ahrens W ²	Cohort (Baseline data T0). Cole, 2012	Regional (Flanders)	3–6.99	1349	659	690	7.7	6.7	8.8	1.9	1.6
Belgium	2009–2010	IDEFICS 2008											
Belgium	2009–2010	Wijnhoven TMA ³	CS. Cole, 2000	Regional (Flanders)	6	52647	26105	26542	12.9	10.8	15.1	3.5	2.8
Bulgaria	2007–2008	Wijnhoven TMA ¹	CS. Cole, 2000	National	7	2488	1230	1258	22.0	20.1	24.1	7.7	6.6
Cyprus	2007–2008	Ahrens W ²	Cohort (Baseline data T0). Cole, 2012	Regional	3–6.99	1565	767	798	21.0	19.7	22.4	7.7	7.0
Cyprus	2013–2014	IDEFICS 2008											
Cyprus	2013–2014	Ahrens W ⁴	Cohort. Cole, 2012	Regional	3–6.99	322	148	174	19.9	18.4	21.7	8.1	9.2
Czech Republic	2007–2008	I FAMILY 2013											
Czech Republic	2007–2008	Wijnhoven TMA ¹	CS. Cole, 2000	National	7	915	470	445	15.2	15.7	14.7	3.9	3.8
Estonia	2007–2008	Ahrens W ²	Cohort (Baseline data T0). Cole, 2012	Regional	3–6.99	769	376	393	8.3	7.6	9.3	1.8	1.3
Finland	2007–2009	IDEFICS 2008											
Finland	2007–2009	Lehto R ⁵ . LATE project	CS. Cole, 2000	Regional (Turku and Kainuu)	3 and 5	1681	N/A	N/A	12.0	N/A	N/A	N/A	N/A
France	2006–2007	LioRET S ⁶	CS. Cole, 2000	National	3–6	228	N/A	N/A	13.6	N/A	N/A	3.0	N/A
France	2007–2008	Thibault H ⁷	CS. Cole, 2000	Regional (Aquitaine region)	5–7	4048	N/A	N/A	9.5	N/A	N/A	2.3	N/A
Germany	2007–2008	Ahrens W ²	Cohort (Baseline data T0). Cole, 2012	Regional	3–6.99	1164	558	606	12.7	14.5	10.9	3.2	2.5
Greece	2006–2007	IDEFICS 2008											
Greece	2006–2007	Smpokos EA ⁸	CS. Cole, 2000	Regional (Crete)	5.7–7.8	361	162	199	34.1	33.7	34.6	N/A	N/A
Country	Data Collection Years	First Author	Design. Cole criteria	National or regional data	Age range (years)	Sample size			Prevalence of overweight and obesity (%)			Prevalence of obesity (%)	
						All	girls	boys	All	boys	girls	All	boys
Greece	2009	Kleanthous K ⁹ West Attica Growth	Cohort. Cole, 2000	National	67	286	131	155	43.4	42.6	44.2	19.2	17.5

		Study											
Greece	2013	Pikramenou V ¹⁰	CS. Cole, 2000	Regional (Thessaloniki)	2.5–6.5	2180	1007	1173	16.0	17.4	3.2	3.2	
Hungary	2007–2008	Ahrens W ²	Cohort (Baseline data To). Cole, 2012	Regional	3–6.99	1350	678	672	11.9	14.7	4.7	3.3	
		IDEFICS 2008							10.9	13.0	3.6	5.8	
Ireland	2007	Barron C ¹¹	CS. Cole, 2000	Regional (Co Kildare)	4–6	323	147	176	26.9	27.2	8.0	9.5	
Ireland	2007–2008	Wijnhoven TMA ¹	CS. Cole, 2000	National	7	2409	1266	1143	21.9	26.7	5.9	6.8	
		COSI Round 1							22.8	6.3	5.6		
Italy	2007–2008	Ahrens W ²	Cohort (Baseline data To) Cole, 2012	Regional	3–6.99	1363	631	732	36.5	38.3	16.6	16.3	
		IDEFICS 2008							34.8	16.9			
Italy	2013	Toselli S ¹² . SoNIA project	CS. Cole, 2000	Regional (Emilia-Romagna)	5–6	2337	1152	1185	25.2	29.0	8.9	9.3	
									21.6	8.6			
Italy	2013–2014	Ahrens W ⁴	Cohort. Cole, 2012	Regional	3–6.99	131	64	67	37.4	42.1	16.8	17.2	
		I FAMILY 2013							32.8	16.4			
Latvia	2007–2008	Wijnhoven TMA ¹	CS. Cole, 2000	National	7	3249	1651	1598	15.2	15.1	3.8	3.1	
		COSI Round 1							15.3	4.5			
Latvia	2009–2010	Wijnhoven TMA ³	CS. Cole, 2012	National	7	2838	1457	1381	16.8	17.7	5.2	5.3	
		COSI Round 2							15.8	5.3			
Lithuania	2007–2008	Wijnhoven TMA ¹	CS. Cole, 2000	National	7	3309	1649	1660	16.1	16.2	5.1	5.1	
		COSI Round 1							16.1	5.1			

Table S3. Quality assessment of prevalence studies included in the systematic review following the Joanna Briggs Institute (JBI) tool.

First author	Was the sample representative of the target population?	Were study participants recruited in an appropriate way?	Was the sample size adequate?	Were the study subjects and the setting described in detail?	Was the data analysis conducted with sufficient coverage of the identified sample?	Were objective, standard criteria used for the measurement of the condition?	Was the condition measured reliably?	Was there appropriate statistical analysis?	Are all important confounding factors/subgroups/differences identified and accounted for?	Were subpopulations identified using objective criteria?
Wijnhoven TMA et al ¹	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Ahrens W et al ²	NO	YES	YES	UNCLEAR	UNCLEAR	YES	YES	YES	YES	YES
Wijnhoven TMA et al ³	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Lehto R et al ⁵	UNCLEAR	YES	YES	YES	YES	YES	YES	YES	YES	YES
Lioret S et al ⁶	YES	YES	YES	YES	YES	UNCLEAR	UNCLEAR	YES	YES	YES
Thibault H et al ⁷	YES	YES	YES	UNCLEAR	YES	UNCLEAR	UNCLEAR	YES	YES	YES
Smpokos EA et al ⁸	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Kleanthous K et al ⁹	UNCLEAR	UNCLEAR	YES	YES	YES	YES	YES	YES	UNCLEAR	YES
Pikramenou V et al ¹⁰	NO	UNCLEAR	YES	UNCLEAR	YES	UNCLEAR	UNCLEAR	YES	N/A	N/A

Barron C et al ¹¹	UNCLEAR	UNCLAR	YES	YES	YES	YES	YES	YES	YES	YES
Toselli S et al ¹²	NO	YES	YES	UNCLEAR	YES	YES	YES	YES	UNCLEAR	UNCLEAR
Bac A et al ¹³	NO	UNCLEAR	YES	UNCLEAR	YES	YES	YES	YES	N/A	N/A
Kowal M et al ¹⁴	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A
Kuřaga Z et al ¹⁵	YES	YES	YES	UNCLEAR	YES	YES	YES	YES	N/A	N/A
Merkel S et al ¹⁶	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A
Bingham D et al ¹⁷	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Vale S et al ¹⁸	YES	YES	YES	UNCLEAR	YES	YES	YES	YES	YES	YES
COSI Round 3 ¹⁹	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Silva-Santos S et al ²⁰	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Barbu CG et al ²¹	YES	YES	YES	YES	YES	UNCLEAR	UNCLEAR	YES	YES	YES
Djordjic V et al ²²	YES	YES	YES	YES	YES	YES	YES	YES	UNCLEAR	UNCLEAR
García García E et al ²³	YES	YES	YES	UNCLEAR	YES	YES	YES	YES	YES	YES
González García A et al ²⁴	YES	YES	YES	UNCLEAR	YES	YES	YES	YES	YES	YES
Gómez Santos SF et al ²⁵	NO	YES	YES	UNCLEAR	YES	YES	UNCLEAR	YES	N/A	N/A
Garmy Pet al ²⁶	NO	YES	YES	YES	YES	UNCLEAR	UNCLEAR	YES	YES	YES
Jeannot E et al ²⁷	YES	YES	YES	UNCLEAR	YES	YES	YES	YES	N/A	N/A
Jeannot E et al ²⁸	YES	YES	YES	UNCLEAR	YES	YES	YES	YES	N/A	N/A
de Wilde JA et al ²⁹	YES	YES	YES	UNCLEAR	YES	UNCLEAR	YES	YES	YES	YES
Schönbeck Y et al ³⁰	YES	YES	YES	YES	YES	YES	YES	YES	N/A	N/A
Senol V et al ³¹	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Basterfield et al ³²	YES	YES	YES	UNCLEAR	YES	YES	YES	YES	YES	YES

Abbreviation: NA: Not applicable.

Table S4. Point estimates and 95% confidence intervals for the prevalence of childhood overweight (OW) and obesity (OB) among European children (aged 2-7 years) using the IOTF definition criteria.

2006–2016									
All				Girls			Boys		
Country	Number of studies	I^2	Pooled estimated (95 % CI)	Number of studies	I^2	Pooled estimated (95 % CI)	Number of studies	I^2	Pooled estimated (95 % CI)
Belgium									
OW/OB	3	93.7	12.0 (11.1–13.1)	3	89.7	14.2 (13.1–15.5)	3	86.6	10.5 (9.7–11.5)
OB	3	82.9	3.3 (3.0–3.6)	3	80.5	3.9 (3.4–4.4)	3	52.9	2.8 (2.7–3.0)
Bulgaria									
OW/OB	1	–	22.0 (20.4–23.7)	1	–	24.1 (21.8–26.5)	1	–	20.1 (18.0–22.4)
OB	1	–	7.7 (6.7–8.8)	1	–	9.0 (7.5–10.8)	1	–	6.6 (5.4–8.1)
Cyprus									
OW/OB	2	0.0	20.8 (19.1–22.7)	2	0.0	22.3 (19.7–25.1)	2	0.0	19.4 (17.1–22.1)
OB	2	0.0	7.7 (6.6–9.0)	2	0.0	8.2 (6.6–10.2)	2	0.0	7.4 (6.0–9.3)
Czech Republic									
OW/OB	1	–	15.2 (13.0–17.7)	1	–	14.7 (11.8–18.2)	1	–	15.7 (12.6–19.4)
OB	1	–	3.9 (2.9–5.4)	1	–	4.0 (2.6–6.3)	1	–	3.8 (2.4–6.1)
Estonia									
OW/OB	1	–	8.3 (6.6–10.5)	1	–	9.3 (6.8–12.7)	1	–	7.6 (5.4–10.7)
OB	1	–	1.8 (1.1–3.1)	1	–	2.4 (1.3–4.5)	1	–	1.3 (0.5–3.0)
Finland									
OW/OB	1	–	12.0 (10.5–13.7)	–	–	–	–	–	–
OB	–	–	–	–	–	–	–	–	–
France									
OW/OB	2	75.6	11.0 (7.7–15.4)	–	–	–	–	–	–
OB	2	0.0	2.3 (1.8–2.7)	–	–	–	–	–	–
Germany									
OW/OB	1	–	12.7 (10.9–14.8)	1	–	10.9 (8.6–13.8)	1	–	14.5 (11.9–17.6)
OB	1	–	3.2 (2.3–4.4)	1	–	4.1 (2.8–6.1)	1	–	2.5 (1.5–4.1)
2006–2016									
All				Girls			Boys		
Country	Number of studies	I^2	Pooled estimated (95 % CI)	Number of studies	I^2	Pooled estimated (95 % CI)	Number of studies	I^2	Pooled estimated (95 % CI)
Greece									
OW/OB	3	98.6	29.6 (14.5–45.0)	3	96.7	30.6 (15.7–45.5)	3	98.0	28.5 (12.9–44.1)
OB	2	99.0	8.1 (1.3–15.0)	2	98.2	8.6 (1.2–16.0)	2	97.8	7.8 (1.4–14.2)
Hungary									
OW/OB	1	–	11.9 (10.3–13.8)	1	–	13.0 (10.7–15.7)	1	–	10.9 (8.7–13.4)

<i>OB</i>	1	-	4.7 (3.7–5.9)	1	-	5.8 (4.2–7.8)	1	-	3.6 (2.4–5.3)
Ireland									
<i>OW/OB</i>	2	75.1	23.9 (19.5–29.0)	2	31.7	23.2 (21.1–25.5)	2	64.3	23.1 (18.3–28.7)
<i>OB</i>	2	54.0	6.2 (5.4–7.2)	2	71.3	7.0 (4.1–11.5)	2	0.0	6.4 (5.2–7.8)
Italy									
<i>OW/OB</i>	3	96.4	32.4 (23.8–42.4)	3	89.3	35.4 (27.7–44.0)	3	95.1	29.1 (19.5–40.9)
<i>OB</i>	3	96.0	13.5 (8.1–21.4)	3	90.1	13.4 (8.4–20.7)	3	93.3	13.1 (7.6–21.8)
Latvia									
<i>OW/OB</i>	2	63.9	16.0 (14.5–17.6)	2	74.4	16.4 (13.9–19.1)	2	0.0	15.5 (14.3–16.9)
<i>OB</i>	2	85.4	4.4 (3.3–6.0)	2	88.4	4.1 (2.5–6.8)	2	13.3	4.9 (4.2–5.8)
Lithuania									
<i>OW/OB</i>	1	-	16.1 (14.9–17.4)	1	-	16.2 (14.5–18.0)	1	-	16.1 (14.4–17.9)
<i>OB</i>	1	-	5.1 (4.4–5.9)	1	-	5.1 (4.1–6.3)	1	-	5.1 (4.1–6.2)
Malta									
<i>OW/OB</i>	1	-	23.6 (21.8–25.4)	1	-	24.8 (22.3–27.5)	1	-	22.7 (20.3–25.3)
<i>OB</i>	1	-	9.7 (8.5–11.0)	1	-	10.6 (8.8–12.6)	1	-	9.0 (7.4–10.8)
Poland									
<i>OW/OB</i>	3	95.2	20.5 (11.9–33.2)	2	23.1	15.3 (14.1–16.7)	1	-	12.2 (11.0–13.5)
<i>OB</i>	3	47.1	4.3 (3.8–4.9)	2	0.0	4.0 (3.3–4.7)	1	-	4.4 (3.7–5.3)
Portugal									
<i>OW/OB</i>	5	87.3	26.4 (23.8–29.2)	5	87.1	29.5 (25.7–33.6)	5	67.7	22.4 (20.2–24.8)
<i>OB</i>	5	68.0	8.1 (7.1–9.2)	5	69.4	9.1 (7.6–10.9)	5	54.3	6.5 (6.7.2)
Romania									
<i>OW/OB</i>	1	-	20.9 (17.7–24.5)	1	-	23.4 (18.8–28.8)	1	-	18.0 (13.9–22.9)
<i>OB</i>	1	-	6.1 (4.4–8.5)	1	-	7.2 (4.7–10.9)	1	-	5.3 (3.3–8.8)
2006–2016									
All			Girls				Boys		
	Number of studies	<i>I</i>²	Pooled estimated (95 % CI)	Number of studies	<i>I</i>²	Pooled estimated (95 % CI)	Number of studies	<i>I</i>²	Pooled estimated (95 % CI)
Serbia									
<i>OW/OB</i>	1	-	23.8 (21.0–26.8)	1	-	23.0 (19.3–27.4)	1	-	24.5 (20.6–28.9)
<i>OB</i>	1	-	8.4 (6.7–10.5)	1	-	7.1 (5.0–10.0)	1	-	9.7 (7.1–12.9)
Slovenia									
<i>OW/OB</i>	2	76.2	18.2 (16.4–20.2)	2	0.0	18.8 (17.5–20.1)	2	74.4	17.9 (16.6–19.2)
<i>OB</i>	2	48.8	5.9 (5.4–6.5)	2	38.4	6.2 (5.4–7.0)	2	9.2	5.6 (4.8–6.4)
Spain									
<i>OW/OB</i>	5	94.5	22.6 (18.7–27.0)	4	92.5	24.3 (17.7–32.3)	4	80.6	22.4 (18.3–27.1)
<i>OB</i>	5	93.2	7.9 (5.8–10.7)	4	62.3	8.9 (7.8–10.2)	4	76.7	8.5 (6.2–11.6)
Sweden									

<i>OW/OB</i>	2	94.6	13.3 (7.3–22.8)	2	93.7	16.4 (8.1–30.4)	2	73.7	10.4 (6.7–15.6)
<i>OB</i>	2	84.7	2.6 (1.9–3.6)	2	37.8	2.9 (1.0–8.4)	2	0.0	2.0 (1.2–3.3)
Switzerland									
<i>OW/OB</i>	2	69.6	13.4 (12.5–14.3)	2	55.3	15.0 (13.8–16.3)	2	0.0	11.6 (10.5–12.8)
<i>OB</i>	2	0.0	3.1 (2.7–3.6)	2	0.0	3.4 (2.8–4.1)	2	0.0	2.9 (2.3–3.6)
The Netherlands									
<i>OW/OB</i>	2	51.4	9.7 (9.0–10.4)	2	34.8	11.0 (10.1–12.1)	2	69.2	7.1 (5.7–8.8)
<i>OB</i>	2	94.9	1.5 (0.6–2.4)	2	96.7	1.6 (0.3–2.9)	2	0.0	1.2 (0.9–1.6)
Turkey									
<i>OW/OB</i>	1	-	15.5 (12.4–19.0)	1	-	15.0 (10.9–20.2)	1	-	15.8 (11.8–21.1)
<i>OB</i>	1	-	2.8 (1.6–4.7)	1	-	1.8 (0.7–4.6)	1	-	3.8 (2.0–7.1)
United Kingdom									
<i>OW/OB</i>	1	-	24.0 (20.2–28.3)	1	-	24.2 (19.0–30.5)	1	-	23.7 (18.4–29.9)
<i>OB</i>	1	-	6.4 (4.4–9.1)	1	-	5.6 (3.2–9.6)	1	-	7.1 (4.3–11.5)
Yugoslav Republic of Macedonia									
<i>OW/OB</i>	1	-	24.5 (22.9–26.1)	1	-	22.9 (20.7–25.2)	1	-	26.2 (24.0–28.5)
<i>OB</i>	1	-	10.2 (9.1–11.4)	1	-	9.6 (8.1–11.3)	1	-	10.9 (9.4–12.6)
- , no published article was found in the selected years.									

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