

# A.15. Odds of developing obesity comparing early introduction with later introduction of CFs, retrospective studies

# Odds of developing obesity

Retrospective studies sorted by author's name

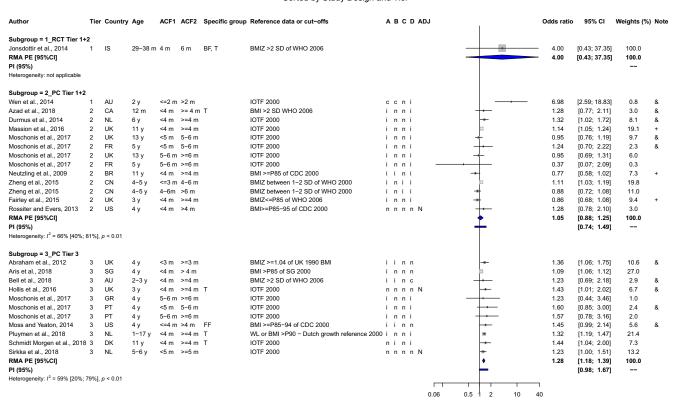
Author	Study design	Country	Age	ACF1	ACF2	ADJ		1		Odds ratio	95% CI	Weights (%)
Study_type = Retrospective		CD	0.42 v	-1 m	F 6 m	N				0.62	[0.40, 0.00]	24.6
Birbilis et al., 2013 Birbilis et al., 2013	CS CS	GR GR	9−13 y 9−13 y	<=4 m <=4 m	5−6 m >6 m	N N		_		0.63 0.45	[0.40; 0.99] [0.26; 0.78]	31.6 26.1
Sandoval Jurado et al., 2016	CS	MX	2-4 y	<6 m	>=6 m					0.86	[0.28; 2.68]	9.5
Vehapoglu et al., 2014	CS	TR	2-14 y	<4 m	>=6 m	N				1.01	[0.66; 1.55]	32.8
RMA PE [95%CI] PI (95%)							_			0.69	[0.39; 1.25] [0.17; 2.76]	100.0 
Heterogeneity: $I^2 = 46\%$ [0%; 82%]	%], <i>p</i> = 0.13							<del>-     -   -   -   -   -   -   -   -   -</del>	1 1			
						0.01	0.1	0.5 1 2	10 4	0		

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, CFs = complementary foods, CI = confidence interval, CS = cross-sectional study, GR = Greece, m = months, MX = Mexico, N = unadjusted, PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis, TR = Turkey, y = years.



### A.16. Odds of developing (at least) overweight comparing early introduction with later introduction of CFs

Odds of developing (at least) overweight Sorted by Study Design and Tier



<sup>+</sup> Risk Ratio (RR), & Combined estimates across study ACF groups adjusted for correlation.

Confounders: A = Education of the caregivers, B = Socioeconomic status (SES), C = Previous measurements, D = Parental Body Mass Index (BMI).

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, AU = Australia, BF = breastfed, BMI = Body Mass Index, BMIZ = Body Mass Index z-score, BR = Brazil, c = considered, CA = Canada, CDC = Centers for Disease Control and Prevention, CI = confidence interval, CN = China, DK: Denmark, FF = formula fed, FR = France, GR = Greece, i = included, IOT= International Obesity Task Force, IS = localand, m = months, n = not considered, N = unadjusted, NL = Netherlands, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, PT = Portugal, RCT = randomised controlled not an endown effects meta-analysis, SD = standard deviation, SG = Singapore, T = term infants, UK = United Kingdom, US = United States, WHO = World Health Organization, WI = weight/length; v = years.

#### Random effects meta-analysis calculated using the DerSimonian and Laird approach without the Hartung and Knapp modification:

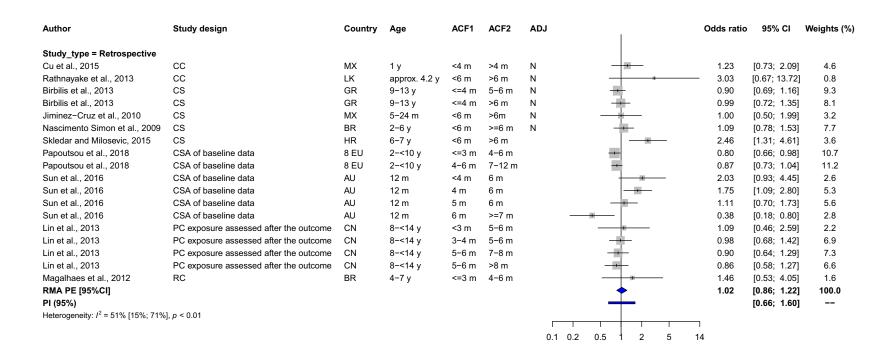
o subgroup prospective cohort studies rated as Tier 3: PE = 1.28; 95% CI [1.14; 1.42]



# A.17. Odds of developing (at least) overweight comparing early introduction with later introduction of CFs, retrospective studies

### Odds of developing (at least) overweight

Retrospective studies sorted by study design



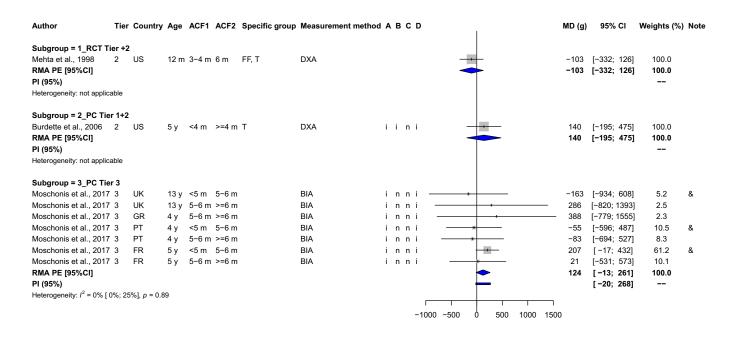
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, AU = Australia, BR = Brazil, CC = case-control study, CFs = complementary foods, CI = confidence interval, CN = China, CS = cross-sectional study, CSA = cross-sectional analysis, EU = Europe, GR = Greece, HR = Croatia, LK = Sri Lanka, m = months, MX = Mexico, N = unadjusted, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RC = retrospective cohort, RMA = random effects meta-analysis, y = years.



### A.18. Fat mass comparing early introduction with later introduction of CFs

#### Fat mass

Sorted by Study Design and Tier



& Combined estimates across study ACF groups adjusted for correlation.

Confounders: A = Education of the caregivers, B = Socioeconomic status (SES), C = Previous measurements, D = Parental Body Mass Index (BMI).

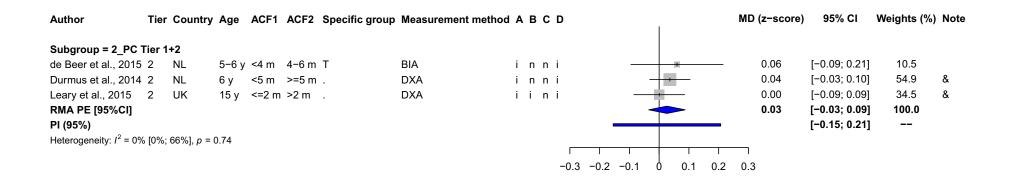
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, BIA = bioelectrical impedance analysis, CI = confidence interval, DXA = dual energy X-ray absorptiometry, FF = formula fed, FR = France, GR = Greece, i = included, m = months, MD = mean difference, n = not considered, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, PT = Portugal, RCT = randomised controlled trial, RMA = random effects meta-analysis, T = term infants, UK = United Kingdom, US = United States, y = years.



### A.19. Fat mass z-score comparing early introduction with later introduction of CFs

### Fat mass z-score

### Sorted by author's name



& Combined estimates across study ACF groups adjusted for correlation.

Confounders: A = Education of the caregivers, B = Socioeconomic status (SES), C = Previous measurements, D = Parental Body Mass Index (BMI).

Abbreviations: ACF = age at complementary feeding, BIA = bioelectrical impedance analysis, CI = confidence interval, DXA = dual energy X-ray absorptiometry, i = included, m = months, MD = mean difference, n = not considered, NL = Netherlands, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis, T = term infants, UK = United Kingdom, y = years.



# A.20. Skinfold thickness comparing early introduction with later introduction of CFs

### Skinfold thickness (SFT)

Sorted by Tier

Author	Study design	Tier	Country	Age	ACF1	ACF2	Specific group	Endpoint	Α	В	С	D	1	MD (mm)	95% CI
Perkin et al., 2016	RCT	1	UK	3 v	3-4 m	6 m	BF	Subscapular SFT						0.5	[-1.3; 2.3]
Perkin et al., 2016	RCT	1	UK	3 v	3-4 m	6 m	BF	Triceps SFT						0.9	[-2.3; 4.1]
Durmus et al., 2012	PC	2	NL	2 y	<4 m	>5 m		Subscapular + suprailiac SFT	i	n	n	i	<del>- +</del>	-0.1	[-1.4; 1.2]
Durmus et al., 2012	PC	2	NL	2 y	4-5 m	>5 m		Subscapular + suprailiac SFT	i	n	n	i	-	0.7	[ 0.0; 1.3]
Durmus et al., 2012	PC	2	NL	2 y	<4 m	>5 m		Triceps + biceps + subscapular + suprailiac SFT	i	n	n	i		1.3	[-1.5; 4.0]
Durmus et al., 2012	PC	2	NL	2 y	4-5 m	>5 m		Triceps + biceps + subscapular + suprailiac SFT	i	n	n	i	-	1.5	[ 0.0; 2.9]
Durmus et al., 2012	PC	2	NL	2 y	<4 m	>5 m		Triceps + biceps SFT	i	n	n	i		1.7	[-0.1; 3.4]
Durmus et al., 2012	PC	2	NL	2 y	4-5 m	>5 m		Triceps + biceps SFT	i	n	n	i	-	8.0	[-0.1; 1.7]
Huh et al., 2011	PC	3	US	3 y	<4 m	4-5 m	FF	Triceps + subscapular SFT	i	i	i	i	-	1.0	[-0.1; 2.2]
Huh et al., 2011	PC	3	US	3 y	4-5 m	>=6 m	FF	Triceps + subscapular SFT	i	i	i	i	*	-0.5	[-2.3; 1.4]
Huh et al., 2011	PC	3	US	3 y	<4 m	4-5 m	BF	Triceps + subscapular SFT	i	i	i	i		-0.2	[-1.4; 1.0]
Huh et al., 2011	PC	3	US	3 y	4-5 m	>=6 m	BF	Triceps + subscapular SFT	i	i	i	i	-	0.3	[-0.6; 1.2]
													-4 -2 0 2 4		

Confounders: A = Education of the caregivers, B = Socioeconomic status (SES), C = Previous measurements, D = Parental Body Mass Index (BMI).

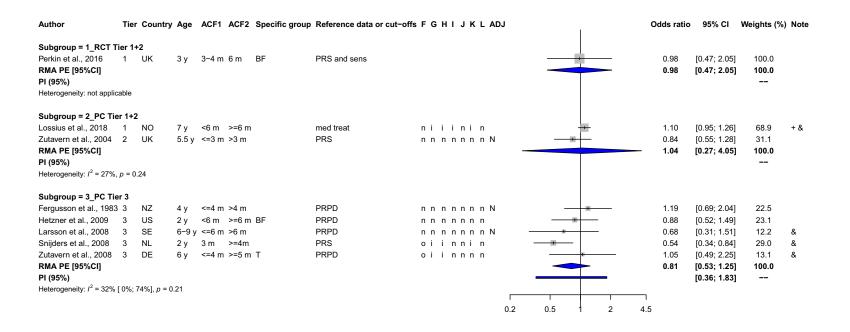
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, BF = breastfed, CI = confidence interval, FF = formula fed, i = included, m = months, MD = mean difference, n = not considered, NL = Netherlands, PC = prospective cohort, RCT = randomised controlled trial, SFT = skinfold thickness, UK = United Kingdom, US = United States, y = years.



# A.21. Asthma-like symptoms and CFs – general population – comparing early introduction with later introduction

#### Asthma-like symptoms and CFs - general population

Sorted by Study Design and Tier



<sup>+</sup> Risk Ratio (RR), & Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural, K = Smoking, L = Pets.

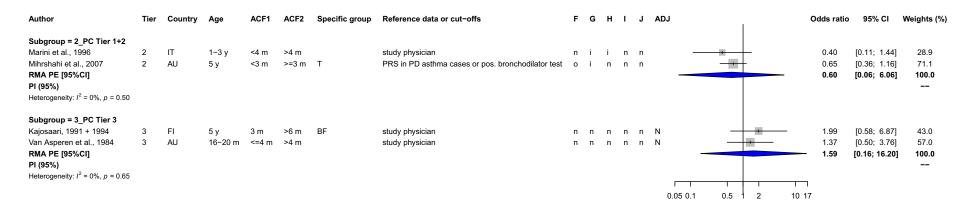
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, BF = breastfed, CF = complementary foods, CI = confidence interval, DE = Germany, i = included, m = months, n = not considered, N = unadjusted, NL = Netherland, NO = Norway, NZ = New Zeland, o = other means were applied to exclude an influence of the covariate, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, PRPD = parents report of physician diagnosis, PRS = parents report of symptoms, RCT = randomised controlled trial, RMA = random effects meta-analysis, SE = Sweden, T = term infants, UK = United Kingdom, US = United States, y = years.



# A.22. Asthma-like symptoms and CFs – at-risk population – comparing early introduction with later introduction

### Asthma-like symptoms and CFs - at-risk population

Sorted by Study Design and Tier



Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural.

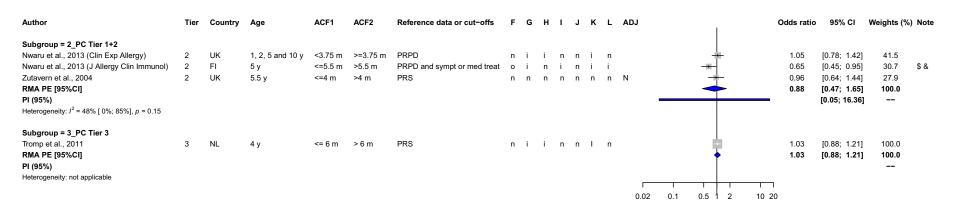
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, AU = Australia, BF = breastfed, CFs = complementary foods, CI = confidence interval, FI = Finland, i = included, IT = Italy, m = months, n = not considered, N = unadjusted, o = other means were applied to exclude an influence of the covariate, PC = prosective cohort, PD = physician diagnosed, PE = pooled estimate, PI = prediction interval, PRS = parents report of symptoms, RMA = random effects meta-analysis, T = term infants, y = years.



# A.23. Asthma-like symptoms and cereals – general population – comparing early introduction with later introduction

#### Asthma-like symptoms and Cereals - general population

Sorted by Study Design and Tier



\$ Hazard Ratio (HR), & Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural, K = Smoking, L = Pets.

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, CI = confidence interval, FI = Finland, i = included, m = months, n = not considered, N = unadjusted, NL = Netherland, o = other means were applied to exclude an influence of the covariate, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, PRDD = parents report of physician diagnosis, PRS = parents report of symptoms, RMA = random effects meta-analysis, UK = United Kingdom, y = years.



# A.24. Asthma-like symptoms and fish – general population – comparing early introduction with later introduction

### Asthma-like symptoms and Fish - general population

Sorted by Study Design and Tier

Author	Tier	Country	Age	ACF1	ACF2	Reference data or cut-offs	F	G	н	I	J	K	L	ADJ	ı	Odds ratio	95% CI	Weights (%	) Note
Subgroup = 2_PC Tier 1+2 Nwaru et al., 2013 (Clin Exp Allergy) Virtanen et al., 2010 Zutavern et al., 2004 RMA PE [95%CI] PI (95%)	2 2 2	UK FI UK	1, 2, 5 and 10 y 5 y 5.5 y	<5.25 m <=6 m <=6 m	>=5.25 m >8.5 m >6 m	PRPD PRPD and med treat PRS	n i n	i i n	i n n	n i n	n n n	i i n	n i n	N	*	1.20 0.99 1.10 <b>1.14</b>	[0.86; 1.68] [0.46; 2.13] [0.71; 1.71] [0.94; 1.39] [0.64; 2.02]	100.0	\$
Heterogeneity: $I^2 = 0\%$ [ 0%; 15%], $\rho = 0.88$ Subgroup = 3_PC Tier 3  Kiefte-de Jong et al., 2012  RMA PE [95%CI]  PI (95%)  Heterogeneity: not applicable	3	NL	4 y	<6 m	6-12 m	PRS	n	i	i	n	n	i	n	г 0	4 0.5	1.53 <b>1.53</b>	[1.07; 2.19] [1.07; 2.19]	100.0 100.0 	

\$ Hazard Ratio (HR).

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural, K = Smoking, L = Pets.

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, CI = confidence interval, FI = Finland, i = included, m = months, n = not considered, N = unadjusted, NL = Netherland, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, PRPD = parents report of physician diagnosis, PRS = parents report of symptoms, RMA = random effects meta-analysis, UK = United Kingdom, y = years.

### Random effects meta-analysis calculated using the DerSimonian and Laird approach without the Hartung and Knapp modification:

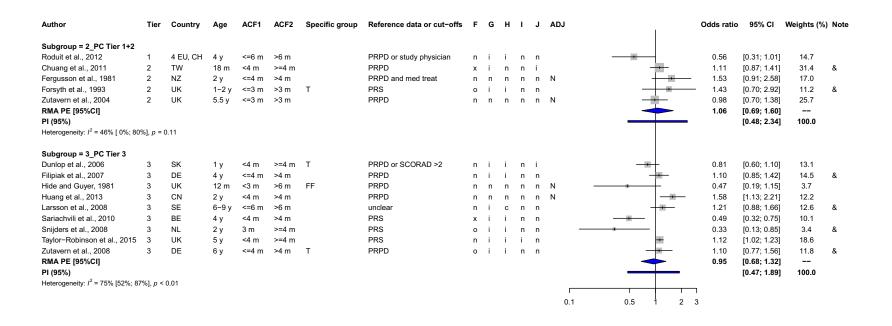
• subgroup of prospective cohort studies rated as Tiers 1 and 2: PE = 1.14; 95% CI [0.88; 1.46]



### A.25. Eczema and CFs – general population – comparing early introduction with later introduction

#### Eczema and CFs - general population

Sorted by Study Design and Tier



& Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural, K = Smoking, L = Pets.

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, BE = Belgium, c = considered, CF = complementary foods, CH = Switzerland, CI = confidence interval, CN = China, DE = Germany, EU = European Union, FF = formula fed, i = included, m = months, n = not considered, N = unadjusted, NL = Netherland, NZ = New Zealand, o = other means were applied to exclude an influence of the covariate, PC = prospective cohort, PE = pooled estimate, PI = prediction interval,

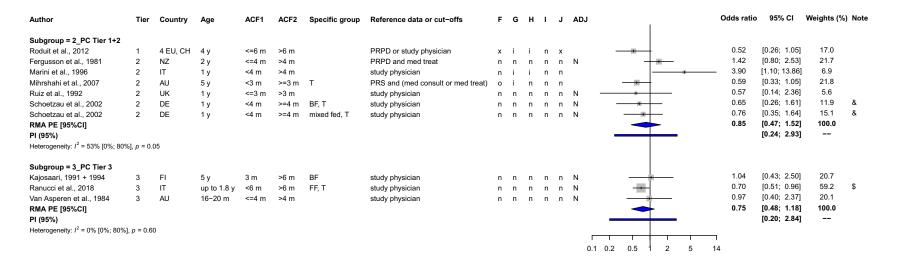
PRPD = parents report of physician diagnosis, PRS = parents report of symptoms, RMA = random effects meta-analysis, SCORAD = Scoring Atopic Dermatitis, SE = Sweden, SK = Slovakia, T = term infants, TW = Taiwan, UK = United Kingdom, x = covariate not relevant fot the comparison, y = years.



# A.26. Eczema and CFs – at-risk population – comparing early introduction with later introduction

#### Eczema and CFs - at-risk population

Sorted by Study Design and Tier



\$ Hazard ratio (HR), & Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural.

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, AU = Australia, BF = breastfed, CFs = complementary foods, CH = Switzerland, CI = confidence interval, DE = Germany, EU = European Union, FF = formula fed, FI = Finland, i = included, IT = Italy, m = months, n = not considered, N = unadjusted, NZ = New Zealand, o: other means were applied to exclude an influence of the covariate, PC: prospective cohort, PE = pooled estimate, PI = prediction interval, PRPD = parents report of physician diagnosis,

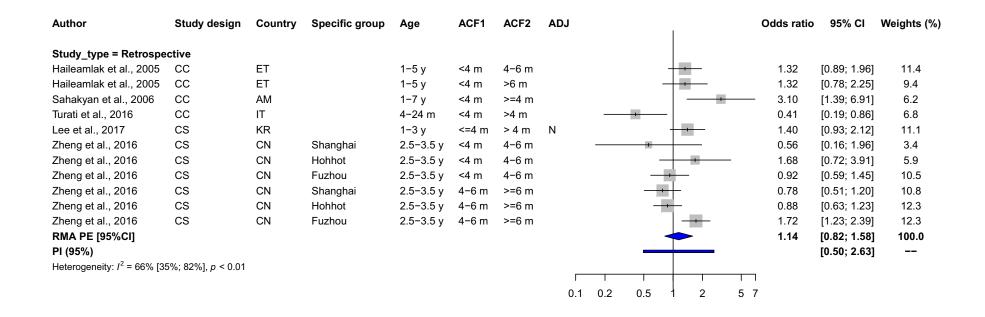
PRS = Parents report of symptoms, RMA = random effects meta-analysis, T = term infants, UK = United Kingdom, x = covariate not relevant for the comparison, y = years.



# A.27. Eczema and CFs – general population – comparing early introduction with later introduction, retrospective studies

# Eczema and CFs - general population

Retrospective studies sorted by study design



Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, AM = Armenia, CC = case-control study, CFs = complementary foods, CN = China, CI = confidence interval, CS = cross-sectional study, ET = Ethiopia, IT = Italy, KR = South Korea, m = months, N = unadjusted, PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis, y = years.



# A.28. Eczema and egg – general population – comparing early introduction with later introduction

### Eczema and Egg - general population

Sorted by Study Design and Tier

Author	Tier	Country	Age	ACF1	ACF2	Specific group	Reference data or cut-offs	F	G	Н	ı	J	1	Odds ratio	95% CI	Weights	(%) Note
Subgroup = 2_PC Tier 1+2 Nwaru et al., 2013 (Clin Exp Allergy) RMA PE [95%CI] PI (95%) Heterogeneity: not applicable	2	UK	1, 2, 5 and 10 y	<5 m	>=5 m		PRPD	n	i	i	n	n	<b>+</b>	1.10 <b>1.10</b>	[0.87; 1.39] [0.87; 1.39]	100.0 <b>100.</b> 0	
Subgroup = 3_PC Tier 3																	
Elbert et al., 2017	3	NL	10 y	<=6 m	>=6 m		PRPD	0	i	i	n	n	<del></del>	1.27	[0.85; 1.89]	29.9	
Filipiak et al., 2007	3	DE	4 y	<6 m	>=6 m		PRPD	n	i	i	n	n	-	0.79	[0.60; 1.05]	45.9	&
Zutavern et al., 2006	3	DE	2 y	<=6 m	>6 m	Т	PRPD	0	i	i	n	n		0.88	[0.56; 1.39]	24.2	
RMA PE [95%CI]													<b>→</b>	0.94	[0.51; 1.75]	100.0	)
PI (95%)														_	[0.06; 16.08]		
Heterogeneity: $I^2 = 45\%$ [ 0%; 83%], $p = 0$	0.16																
												0.05 0.1	0.5 1 2 10	17			

& Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural, K = Smoking, L = Pets.

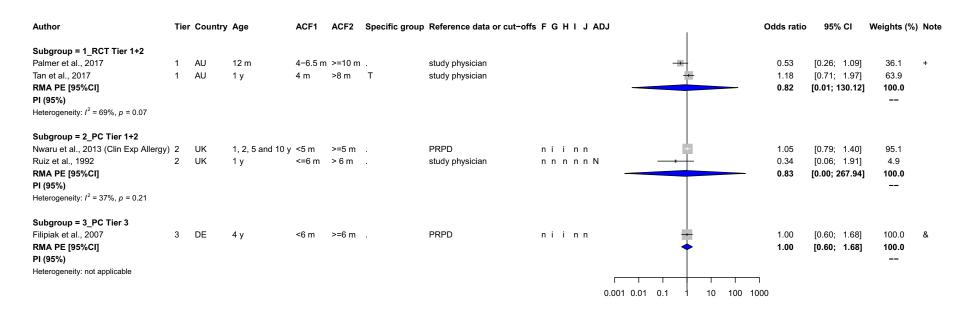
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, CI = confidence interval, DE = Germany, i = included, m = months, n = not considered, NL = Netherland, o = other means were applied to exclude an influence of the covariate, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, PRPD = parents report of physician diagnosis, RMA = random effects meta-analysis, T = term infants, UK = United Kingdom, y = years.



# A.29. Eczema and egg – at-risk population – comparing early introduction with later introduction

### Eczema and egg - at-risk population

Sorted by Study Design and Tier



+ Risk Ratio (RR), & Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural.

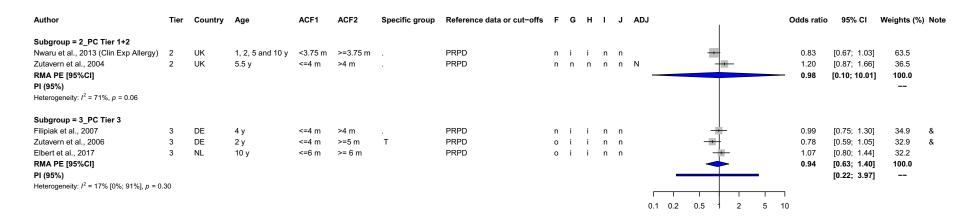
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, AU = Australia, CI = confidence interval, DE = Germany, i = included, m = months, n = not considered, N = unadjusted, PC = prospective cohort, PE = pooled estimate,
PI = prediction interval, PRPD = parents report of physician diagnosis, RCT = randomised controlled trial, RMA = random effects meta-analysis, T = term infants, UK = United Kingdom, y = years.



### A.30. Eczema and cereals – general population – comparing early introduction with later introduction

### Eczema and Cereals - general population

Sorted by Study Design and Tier



& Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural, K = Smoking, L = Pets.

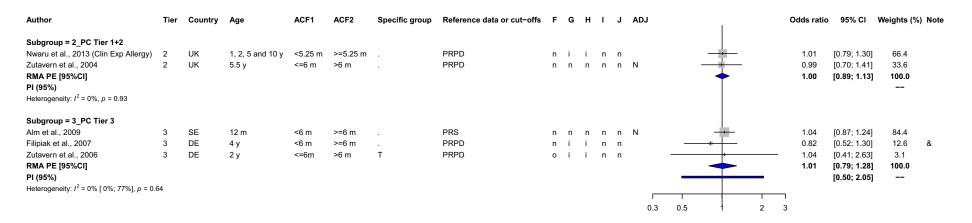
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, CI = confidence interval, DE = Germany, i = included, m = months, n = not considered, N = unadjusted, NL = Netherland, o = other means were applied to exclude an influence of the covariate,
PC = prospective cohort, PE = pooled estimate, PI = prediction interval, PRPD = parents report of physician diagnosis, RMA = random effects meta-analysis, UK = United Kingdom, y = years.



### A.31. Eczema and fish – general population – comparing early introduction with later introduction

#### Eczema and Fish - general population

Sorted by Study Design and Tier



& Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural, K = Smoking, L = Pets.

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, CI = confidence interval, DE = Germany, i = included, m = months, n = not considered, N = unadjusted, o = other means were applied to exclude an influence of the covariate,
PC = prospective cohort, PE = pooled estimate, PI = prediction interval, PRPD = parents report of physician diagnosis, PRS = parents report of symptoms, RMA = random effects meta-analysis, SE = Sweden, T = term infants, UK = United Kingdom, y = years.

### Random effects meta-analysis calculated using the DerSimonian and Laird approach without the Hartung and Knapp modification:

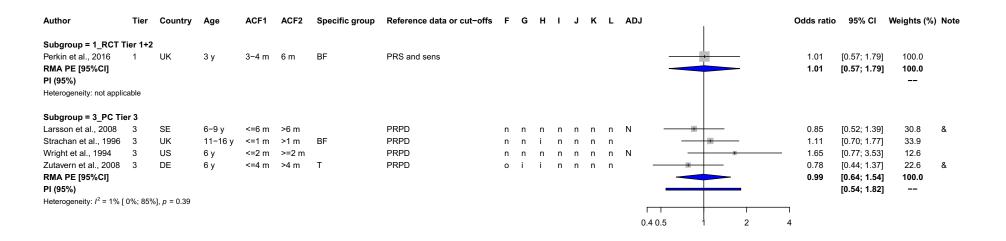
 $\circ$  subgroup of prospective cohort studies rated as Tiers 1 and 2: PE = 1; 95% CI [0.81; 1.22]



### A.32. Allergic rhinitis and CFs – general population – comparing early introduction with later introduction

### Allergic rhinitis and CFs - general population

Sorted by Study Design and Tier



& Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year, G = Parents history of allergy, H = Breastfeeding or type of milk feeding, I = Mode of delivery, J = Area of residence urban or rural, K = Smoking, L = Pets.

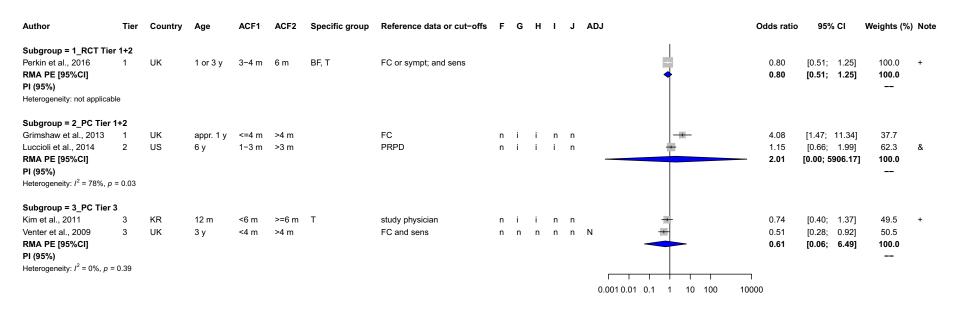
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, BF = breastfed, CFs = complementary foods, CI = confidence interval, DE = Germany, i = included, m = months, n = not considered, N = unadjusted, o = other means were applied to exclude an influence of the covariate, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, PRPD = parents report of physician diagnosis, PRS = parents report symptoms, RCT = randomised controlled trial, RMA = random effects meta-analysis, SE = Sweden, T = term infants, UK = United Kingdom, US = United States, y = years.



# A.33. Symptomatic food allergy and CFs – general population – comparing early introduction with later introduction

### Symptomatic food allergy and CFs - general population

Sorted by Study Design and Tier



<sup>+</sup> Risk Ratio (RR), & Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year; G = Parents history of allergy; H = Breastfeeding or type of milk feeding; I = Mode of delivery; J = Area of residence urban or rural; K = Smoking; L = Pets.

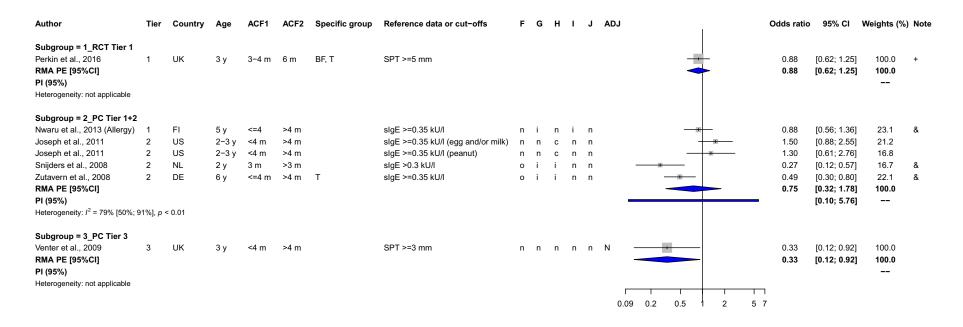
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, BF = breastfeed, c = considered, C = confidence interval, CFs = complementary foods, FC = Food challenge, i = included, m = months, KR = South Korea, n = not considered, N = unadjusted, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RCT = randomised controlled trial, PRPD = parents report of physician diagnosis, RMA = random effects meta-analysis, T = term infants, UK = United Kingdom, US = United States, y = years.



### A.34. Sensitisation and CFs – general population – comparing early introduction with later introduction

### Sensitisation and CFs - general population

Sorted by Study Design and Tier



<sup>+</sup> Risk Ratio (RR); & Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the fisrt half year; G = Parents history of allergy; H = Breastfeeding or type of milk feeding; I = Mode of delivery; J = Area of residence urban or rural; K = Smoking; L = Pets.

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, c = considered, CFs = complementary foods, CI = confidence interval, DE = Germany, FI = Finland, i = included, m = months, n = not considered,

N = unadjusted, NL = Netherland, o = other means were applied to exclude an influence of the covariate, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RCT = randomised controlled trial,

RMA = random effects meta-analysis, SPT = skin prick test, slgE = specific immunoglobulin E, T = term infants, UK = United Kingdom, y = years.



# A.35. Sensitisation and CFs – at-risk population – comparing early introduction with later introduction

### Sensitisation and CFs - at-risk population

Sorted by Study Design and Tier

Author	Tier	Country	Age	ACF1	ACF2	Specific group	Reference data or cut-offs	F	G	н	ı	J		Odds ratio	95% CI	Weights (%	%) Note
Subgroup = 2_PC Tier 1+2													1				
Nwaru et al., 2013 (Allergy)	1	FI	5 y	<=4 m	>4 m		slgE >=0.35 kU/l	0	i	n	i	n		0.70	[0.55; 0.90]	37.5	&
Joseph et al., 2011	2	US	2-3 y	<4 m	>4 m		slgE >=0.35 kU/l (egg and/or milk)	n	n	С	n	n	-	0.80	[0.50; 1.29]	25.9	
Joseph et al., 2011	2	US	2-3 y	<4 m	>4 m		slgE >=0.35 kU/l (peanut)	n	n	С	n	n		0.20	[0.08; 0.53]	11.0	
Mihrshahi et al., 2007	2	AU	5 y	<3 m	>=3 m	T	SPT >=2 mm	0	i	n	n	n		0.54	[0.33; 0.88]	25.6	
RMA PE [95%CI]														0.59	[0.28; 1.25]	100.0	
PI (95%)														-	[0.12; 2.86]		
Heterogeneity: $I^2 = 59\%$ [0%; 86	6%], p =	0.06															
														7			
												0.06	0.5 1 2	3			

& Combined estimates across study ACF groups adjusted for correlation.

Confounders: F = Allergic symptoms in the first half year; G = Parents history of allergy; H = Breastfeeding or type of milk feeding; I = Mode of delivery, J = Area of residence urban or rural.

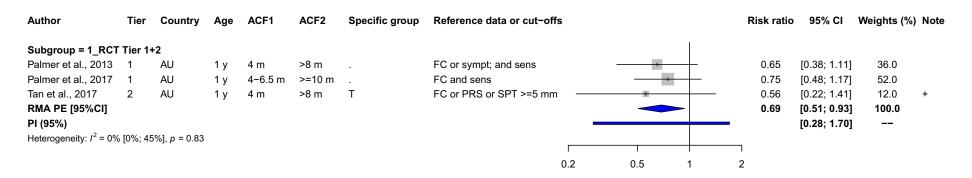
Abbreviations: ACF = age at complementary feeding, AU = Australia, c = considered, CFs = complementary foods, CI = confidence interval, FI = Finland, i = included,
o = other means were applied to exclude an influence of the covariate, m = months, n = not considered, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis,
slgE = specific immunoglobulin E, SPT = Skin Prick Test, T = term infants, US = United States, y = years.



# A.36. Symptomatic food allergy and egg – at-risk population – comparing early introduction with later introduction

# Symptomatic food allergy and egg – at-risk population

Sorted by Tier



+ Odds ratio (OR).

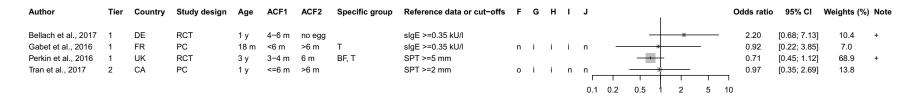
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, AU = Australia, CI = confidence interval, FC = food challenge, i = included, m = months, n = not considered, PE = pooled estimate PI = prediction interval, PRS = Parents report of symptoms, RCT = randomised controlled trial, RMA = random effects meta-analysis, SPT = skin prick test, T = term infants, y = years.



### A.37. Sensitisation and egg – general population – comparing early introduction with later introduction

### Sensitisation and Egg - general population

Sorted by Study Design and Tier



+ Risk Ratio (RR). Confounders: F = Allergic symptoms in the first half year; G = Parents history of allergy; H = Breastfeeding or type of milk feeding; I = Mode of delivery, J = Area of residence urban or rural.

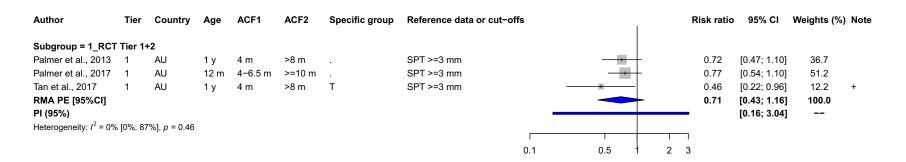
Abbreviations: ACF = age at complementary feeding, BF = breastfed, CA = Canada, CI = confidence interval, DE = Germany, i = included, FR = France, m = months, n = not considered, o = other means were applied to exclude an influence of the covariate,
PC = prospective cohort, RCT = randomised controlled trial, slgE = specific immunoglobulin E, SPT = skin prick test, T = term infants, UK = United Kingdom, y = years.



# A.38. Sensitisation and egg – at-risk population – comparing early introduction with later introduction

# Sensitisation and Egg - at-risk population

Sorted by Author's name



+ Odds ratio (OR).

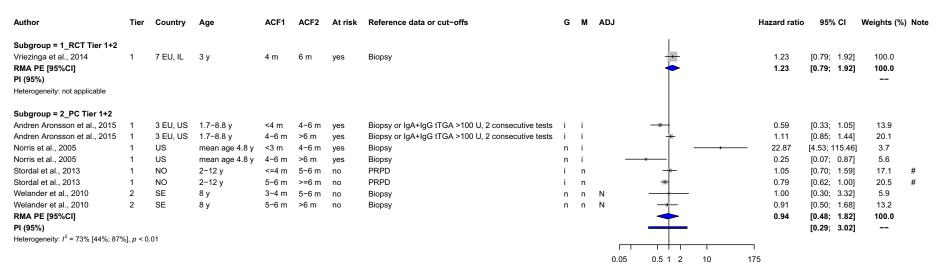
Abbreviations: ACF = age at complementary feeding, AU = Australia, CI = confidence interval, i = included, m = months, n = not considered, PE = pooled estimate, PI = prediction interval, RCT = randomised controlled trial, RMA = random effects meta-analysis, SPT = skin prick test, T = term infants, y = years.



### A.39. Coeliac disease and gluten comparing early introduction with later introduction

#### Coeliac disease and gluten

Sorted by Study Design and Tier



# Odds Ratio (OR). Confounders: G = Family history of coeliac disease; M = Human leukocyte antigen (HLA) status.

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, CI = confidence interval, EU = European Union, i = included, IgA = immunoglobulin A, IgG = immunoglobulin A



# A.40. Coeliac disease and gluten comparing early introduction with later introduction, retrospective studies Coeliac disease and gluten

Retrospective studies sorted by author's name

Author	Study design	Country	Age	ACF1	ACF2	At risk	ADJ			Odds ratio	95% CI	Weights (%)
Study_type = Retros <sub>i</sub>	pective											
Auricchio at al., 1983	CC	IT	mean age 15 m	<=2 m	>=2 m	no	N	_		1.46	[0.83; 2.58]	20.3
Greco et al., 1983	CC	IT	up to 2 y	<=2 m	>=2 m	no	N			1.46	[0.93; 2.30]	27.9
Ivarsson et al., 2002	CC	SE	up tp 2 y	<=4 m	5-6 m	no			+	0.71	[0.43; 1.18]	23.7
Ivarsson et al., 2002	CC	SE	up tp 2 y	<=4 m	>6 m	no				1.32	[0.72; 2.43]	18.4
Peters et al., 2001	CC	DE	mean age 6.4 y	<=3 m	>3 m	no				1.38	[0.56; 3.39]	9.6
RMA PE [95%CI]								<b>-</b>		1.20	[0.80; 1.81]	100.0
PI (95%)											[0.58; 2.49]	
Heterogeneity: $I^2 = 26\%$	[0%; 71%], <i>p</i> = 0.25	5										
										$\neg$		
							0.2	0.5	1 2	4		

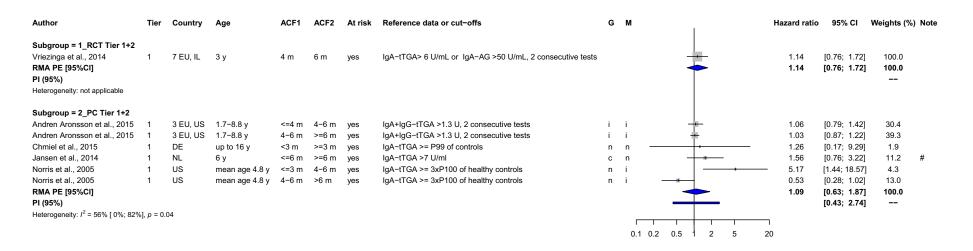
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, CC = case-control study, CI = confidence interval, DE = Germany, IT = Italy, m = months, N = unadjusted, PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis, SE = Sweeden, y = years.



### A.41. Coeliac disease autoimmunity and gluten comparing early introduction with later introduction

#### Coeliac disease autoimmunity and gluten

Sorted by Study Design and Tier



# Odds Ratio (OR). Confounders: G = Family history of coeliac disease; M = Human leukocyte antigen (HLA) status.

Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, AG = anti-gliadin, c = considered, CI = confidence interval, DE = Germany, EU = European Union, i = included, IgA = immunoglobulin A, IgG = immunoglobulin G, IL = Israel, m = months, n = not considered, NL = Netherland, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RCT = randomised controlled trial, RMA = random effects meta-analysis, tTGA = tissue transglutaminase autoantibodies, US = United States, y = years.



# A.42. Type 1 diabetes mellitus and CFs comparing early introduction with later introduction

### Type 1 diabetes mellitus and CFs

Sorted by author's name and tier

Author	Tier	Country	Age	ACF1	ACF2	At risk	Reference data or cut-offs	G	N	P	ADJ			1		Hazard ratio	95% CI	Weights (%	%) Note
Subgroup = 2_PC Tier 1	1+2																		
Frederiksen et al., 2013	1	US	unclear	<4 m	4-5 m	yes	ADA criteria	i	С	С						1.91	[1.04; 3.51]	19.8	
Frederiksen et al., 2013	1	US	unclear	4-5 m	>=6 m	yes	ADA criteria	i	С	С						0.33	[0.14; 0.78]	15.3	
Hakola et al., 2017	1	FI	up to 15 y	<=4 m	>4 m	yes	WHO criteria	n	n	n	N		_	-		1.01	[0.71; 1.45]	24.5	&
Lund-Blix et al., 2015	1	NO	mean 7.7 y	<5 m	5-5.9 m	yes	clinical diagnosis	i	n	i			_			1.89	[0.67; 5.35]	12.7	
Lund-Blix et al., 2015	1	NO	mean 7.7 y	5-5.9 m	>=6 m	yes	clinical diagnosis	i	n	i		_			-	0.72	[0.21; 2.51]	10.2	
Savilahti et al., 2009	2	FI	up to 12 y	<3.9 m	>3.9 m	no	diabetes register	n	n	n	N			+		0.58	[0.28; 1.21]	17.6	#
RMA PE [95%CI]							-							<b>-</b>		0.92	[0.45; 1.86]	100.0	
PI (95%)												_					[0.20; 4.32]		
Heterogeneity: $I^2 = 65\%$ [17	%; 86%	p = 0.01																	
																1			
											(	.1 0.2	0.5	1 2	5 1	0			

# Odds Ratio (OR); & Combined estimates across study ACF groups adjusted for correlation. Confounders: G = Family history of type 1 diabetes mellitus; N = Ethnicity; P = Child's gender.

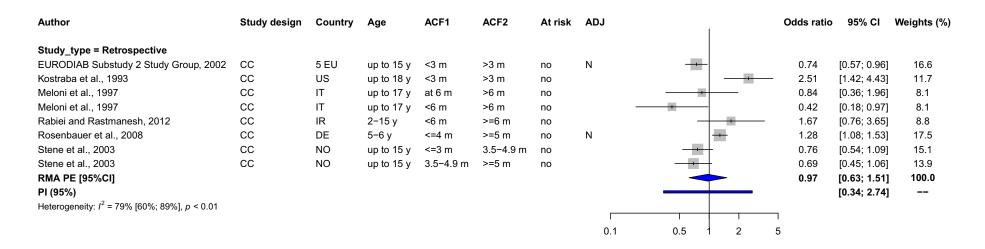
Abbreviations: ACF = age at complementary feeding, ADA = American Diabetes Association, ADJ = adjusted, c = considered, CI = confidence interval, CFs = complementary foods, FI = Finland, i = included, m = months, n = not considered, N = unadjusted, NO = Norway, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis, US = United States, WHO = World Health Organization, y = years.



# A.43. Type 1 diabetes mellitus and CFs comparing early introduction with later introduction, retrospective studies

# Type 1 Diabetes Mellitus and CFs

Retrospective studies sorted by author's name



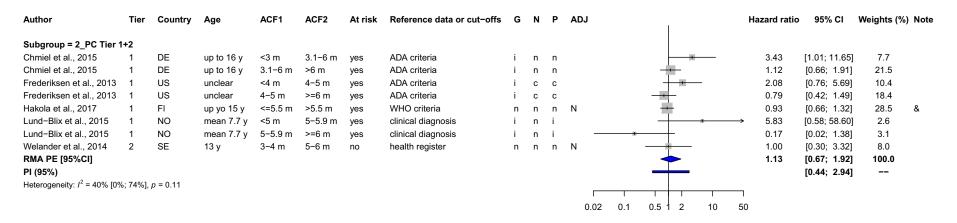
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, CC = case-control study, CF = complementary foods,
CI = confidence interval, EU = European Union, EURODIAB = EUROpe and DIABetes, DE = Germany, IR = Iran, IT = Italy, m = months, N = unadjusted, NO = Norway,
PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis, US = United States, y = years.



### A.44. Type 1 diabetes mellitus and gluten comparing early introduction with later introduction

### Type 1 diabetes mellitus and gluten

Sorted by author's name and tier



& Combined estimates across study ACF groups adjusted for correlation.

Confounders: G = Family history of type 1 diabetes mellitus; N = Ethnicity; P = Child's gender.

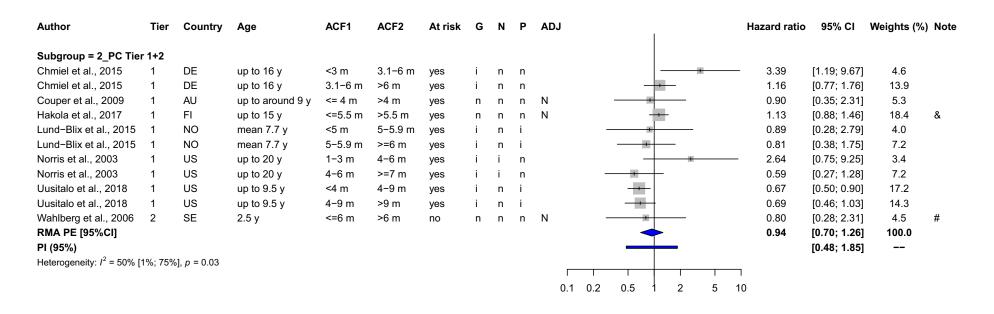
Abbreviations: ACF = age at complementary feeding, ADA = American Diabetes Association, ADJ = adjusted, c = considered, CI = confidence interval, DE = Germany, FI = Finland, i = included, m = months, n = not considered, N = unadjusted, NO = Norway, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis, SE = Sweden, US = United States, WHO = World Health Organization, y = years.



# A.45. Islet autoimmunity and gluten comparing early introduction with later introduction of CFs

# Islet autoimmunity and gluten

Sorted by author's name and tier



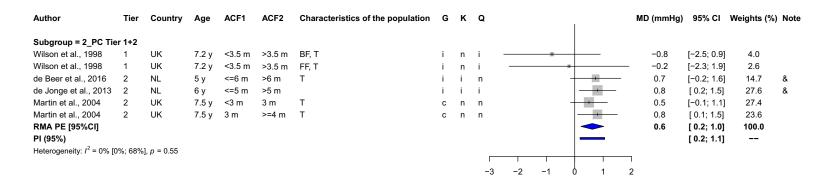
# Odds Ratio (OR); & Combined estimates across study ACF groups adjusted for correlation.



### A.46. Systolic blood pressure comparing early introduction with later introduction of CFs

### Systolic blood pressure and CFs

Sorted by Tier



& Combined estimates across study ACF groups adjusted for correlation.

Confounders: G = Parents history of the disease; K = Smoking; Q = Child's Body Mass Index (BMI).

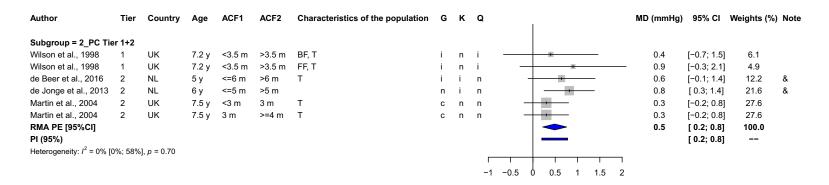
Abreviations: ACF = age at complementary feeding, ADJ = adjusted, BF = breastfed, c = considered, CI = confidence interval, CFs = complementary foods, FF = formula fed, i = included, m = months, MD = mean difference, n = not considered, NL = Netherland, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis, T = term infants, UK = United Kingdom, y = years.



### A.47. Diastolic blood pressure comparing early introduction with later introduction of CFs

### Diastolic blood pressure and CFs

#### Sorted by Tier



& Combined estimates across study ACF groups adjusted for correlation.

Confounders: G = Parents history of the disease; K = Smoking; Q = Child's Body Mass Index (BMI).

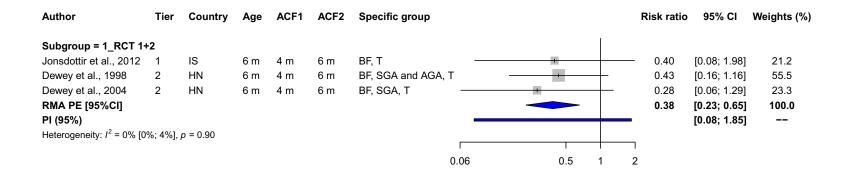
Abbreviations: ACF = age at complementary feeding, ADJ = adjusted, BF = breastfed, c = considered, CI = confidence interval, CFs = complementary foods, FF = formula fed, i = included, m = months, MD = mean difference, n = not considered, NL = Netherland, PC = prospective cohort, PE = pooled estimate, PI = prediction interval, RMA = random effects meta-analysis, T = term infants, UK = United Kingdom, y = years.



# A.48. Risk of iron depletion at 6 months of age (SF < 12 $\mu$ g/L) in exclusively breastfed infants comparing early introduction with later introduction of CFs\*

Risk of iron depletion at 6 months of age (SF <12  $\mu$ g/L)

In exclusively BF term infants, sorted by Tier – without Hartung–Knapp modification



Abbreviations: ACF = age at complementary feeding, AGA = appropriate for gestational age, BF = breastfed, CI = confidence interval, HN = Honduras, IS = Iceland, m = months, PE = pooled estimate, PI = prediction interval, RCT = randomised controlled trial, RMA = random effects meta-analysis, SGA = small for gestational age, SF = serum ferritin.

\*The meta-analysis was calculated using the DerSimonian and Laird approach without the Hartung and Knapp (H&K) modification.



# Appendix B - Publications considered in the assessment

# B.1. Body weight, body length/height and head circumference – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments
Cohen et al. (1995a)	2	RCT	n/a	Attained body length Attained body weight Length gain Weight gain	No PE No PE No PE No PE
Dewey et al. (1999)	2	RCT	n/a	L(H)AZ WAZ	
Jonsdottir et al. (2014)	1	RCT	n/a	Attained HC Attained body length Attained body weight HCZ L(H)AZ WAZ	No PE No PE No PE
Mehta et al. (1998)	2	RCT	n/a	Attained HC Attained body length Attained body weight	
Perkin et al. (2016)	1	RCT	Enquiring About Tolerance (EAT)	Attained HC HCZ Attained body length Attained body weight L(H)AZ WAZ WL(H)Z	
Azad et al. (2018)	2	PC	Canadian Healthy Infant Longitudinal Development (CHILD)	WAZ gain Rapid/high weight gain	
Atkins et al. (2016)	3	PC	Melbourne Infant Feeding, Activity and Nutrition Trial (InFANT)	Attained body length Attained body weight	
Baker et al. (2004)	3	PC	Danish National Birth Cohort (DNBC)	Weight gain	No PE
Butte et al. (2000)	2	PC	n/a	WAZ WL(H)Z L(H)AZ	
de Beer et al. (2015)	2	PC	Amsterdam Born Children and their Development (ABCD)	CLG CWG L(H)AZ	
Eriksen et al. (2017)	1	PC	Early Nutrition and Immune Development (ENID)	WAZ WL(H)Z	
Forsyth et al. (1993)	1	PC	Dundee Infant Feeding Study	Attained body weight	
Gaffney et al. (2012)	3	PC	Infant feeding practices study (IFPS) II and year 6 follow-up (Y6FU)	WAZ	
Griffiths et al. (2009)	2	PC	Millennium Cohort Study (MCS)	CWG	
Griffiths et al. (2010)	3	PC	MCS	Rapid/high weight gain	No PE



Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments
Grote et al. (2011)	1	PC	n/a	Attained body length Attained body weight L(H)AZ L(H)AZ-trajectories WAZ WAZ-trajectories WL(H)Z WL(H)Z-trajectories	No PE No PE No PE
Haschke and van't Hof (2000)	2	PC	Euro-Growth Study	L(H)AZ Length gain WAZ Weight gain	CV CV
Heinig et al. (1993)	3	PC	Davis Area Research on Lactation, Infant Nutrition and Growth (DARLING)	L(H)AZ Length gain WAZ Weight gain	
Hodgson (1978)	3	PC	n/a	Attained body weight	
Huh et al. (2011)	3	PC	ProjectViva	Attained body length Attained body weight L(H)AZ WAZ	
Imai et al. (2014)	2	PC	n/a	Attained body length Attained body weight Weight gain	
Kalanda et al. (2006)	3	PC	n/a		
Kalies et al. (2005)	3	PC	Einfluss von Lebensbedingungen und Verhaltensweisen auf die Entwicklung von Immunsystem und Allergien (LISA)	Rapid/high weight gain	
Kramer et al. (1985b); Kramer et al. (1985a)	2	PC	n/a	Attained body weight	CV, no PE
Layte et al. (2014)	2	PC	n/a	Rapid/high weight gain	
Mäkelä et al. (2014)	2	PC	Steps to Healthy Development (STEPS)	Weight gain	
Morgan et al. (2004)	3	PA	n/a	Attained body length Attained body weight HC gain Weight gain Length gain	No PE No PE
Moschonis et al.	3	PC	Greek EuroPrevall	L(H)AZ	
(2017)	3	PC	Generation XXI	L(H)AZ	
	2	PC	Etude des déterminants pré et postnatals précoces du développement et de la santé (EDEN)	L(H)AZ	
	2	PC	Avon Longitudinal Study of Parents and Children (ALSPAC)	L(H)AZ	

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Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments
Noppornlertwong and Tantibhaedhyangkul (2016)	2	PC	n/a	Attained body weight Weight gain Attained body length Length gain Attained HC HC gain	
Simondon and Simondon (1997)	2	PC	n/a Length gain Weight gain		
Vail et al. (2015)	3	PC	Cambridge Baby Growth Study (CBGS)	L(H)AZ WAZ	CV CV
van Rossem et al. (2013)	2	PC	Generation R	WL(H)Z	
Warrington and Storey (1988)	3	PC	n/a	Attained body weight	No PE
WHO Working Group on Infant Growth (1994)	3	PA	WHO Growth Reference Study	L(H)AZ WAZ WL(H)Z	No PE No PE No PE
Wilson et al. (1998)	2	PC	Dundee Infant Feeding Study	WAZ	
Wright et al. (2004)	3	PC	Millennium Baby Study	CWG	No PE
Kim and Peterson (2008)	3	RETRO: CSA of baseline data of a PC	Early Childhood Longitudinal Study-Birth Cohort (ECLS-B)	Weight gain	
Klag et al. (2015)	3	RETRO: RC	Moms2Moms	WAZ Weight gain WAZ gain	CV
Mihrshahi et al. (2011)	3	RETRO: CSA of baseline data of an RCT	Nourishing Our Understanding of Role Modelling to Improve Support and Health (NOURISH)	Rapid/high weight gain	
Sit et al. (2001)	3	RETRO: CS	n/a	Proportion of children who had started CFs < 4 m in WAZ and WLZ tertiles	
Sloan et al. (2008)	3	RETRO: CSA of baseline data of a PC	n/a	WAZ CWG	
<b>Zhu et al. (2015) 3</b> RETRO: CS		National Children's Study Formative Research in Anthropometry	WAZ WL(H)Z L(H)AZ	CV	

CLG: conditional length gain; CS: cross-sectional study; CSA: cross-sectional analysis; CWG: conditional weight gain; CV: timing of introduction of CF used as a continuous variable in the analysis, HC: head circumference; HCZ: head circumference-for-age z-score; L(H)AZ: length (height)-for-age z-score; m: months; n/a: not available; PA: pooled analysis; PC: prospective cohort study; PE: point estimate; RC: retrospective cohort study; RCT: randomised controlled trial; RETRO: retrospective study; RoB: risk of bias; WAZ: weight-for-age z-score; WHO: World Health Organization; WL(H)Z: weight-for-length (height) z-score.



# B.2. BMI and related endpoints – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments
Jonsdottir et al. (2014)	1	RCT	n/a	Attained BMI BMIZ	No PE
Perkin et al. (2016)	1	RCT	Enquiring About Tolerance (EAT)	Attained BMI BMIZ	
Agras et al. (1990)	1	PC	n/a	Attained BMI	No PE
Azad et al. (2018)	2	PC	Canadian Healthy Infant Longitudinal Development (CHILD)	BMIZ	
Burdette et al. (2006)	2	PC	n/a	BMIZ	
Caleyachetty et al. (2013)	2	PC	Mysore Parthenon Study	High BMI	CV
de Beer et al. (2015)	2	PC	Amsterdam Born Children and their Development (ABCD)	BMIZ	
Durmuş et al. (2014)	2	PC	Generation R	BMIZ	Data from Vogelezang et al. (2018) considered
Fairley et al. (2015)	2	PC	Born in Bradford	BMIZ	
Garden et al. (2012)	2	PC	Childhood Asthma Prevention Study (CAPS)	, ,	
Grote et al. (2011)	1	PC	n/a	Attained BMI BMIZ BMIZ trajectories	No PE
Haschke and van't Hof (2000)	3	PC	Euro-Growth Study	BMI gain BMIZ	CV
Huh et al. (2011)	3	PC	ProjectViva	Attained BMI	
	2		_	BMIZ	
Iguacel et al. (2018)	3	PC	Longitudinal Study of Australian Children (LSAC)	BMIZ	
Imai et al. (2014)	3	PC	n/a	Attained BMI	
Kramer et al. (1985b); Kramer et al. (1985a)	2	PC	n/a	Attained BMI	No PE, CV
Lande et al. (2005)	1	PC	n/a	Attained BMI	No PE, CV
Leary et al. (2015)	2	PC	Avon Longitudinal Study of Parents and Children (ALSPAC)	BMIZ	
Poskitt and Cole (1978)	3	PC	n/a	% expected weight	No PE, CV
Robinson et al. (2009)	2	PC	Southampton Women's Survey (SWS)	•	
Salahuddin et al. (2017)	3	PC	Early Childhood Longitudinal Study-Birth Cohort (ECLS-B)  BMI trajectory class membership		
Schack-Nielsen et al. (2010)	3	PC	Copenhagen Perinatal Cohort	BMIZ Waist circumference	CV CV
Schmidt Morgen et al. (2018)	3	PC	Danish National Birth Cohort (DNBC)	BMIZ	



Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments
Sirkka et al. (2018)	3	PC	ABCD	BMIZ	Data from de Beer et al. (2015) considered
Thorogood et al. (1979)	1	PC	n/a	Shukla index	No PE, CV
Vail et al. (2015)	3	PC	Cambridge Baby Growth Study (CBGS)	BMIZ	CV
Veena et al. (2010)	3	PC	Mysore Parthenon Study	Attained BMI	
Vogelezang et al. (2018)	2	PC	Generation R	BMIZ	
Wen et al. (2014)	1	PC	Healthy Beginnings	Attained BMI	
Wilson et al. (1998)	3	PC	Dundee Infant Feeding Study	BMIZ	No PE
Zheng et al. (2015)	2	PC	Jiaxing Birth Cohort	BMIZ	
Brambilla et al. (2016)	3	RETRO: CS	New Millennium Baby Study	BMIZ	
Kramer (1981)	3	RETRO: CS	n/a	Relative weight	No PE, CV
Lin et al. (2013)	3	RETRO: PC with exposure assessed after outcome	Hong Kong Children of 1997	BMIZ	
Magalhaes et al. (2012)	3	RETRO: RC	n/a	High waist circumference	
Patterson et al. (1986)	3	RETRO: CS	n/a	Relative weight	No PE, CV
Vafa et al. (2012)	3	RETRO: CS	n/a	Attained BMI BMI class membership	No PE
Zhu et al. (2015)	3	RETRO: CS	National Children's Study Formative Research in Anthropometry		No PE, CV
CS, bas dat		RETRO: CSA of baseline data of a PC	Study of Children's Activity and Nutrition (SACN)	Attained BMI	No PE, CV

BMI: body mass index; BMIZ: body mass index-for-age z-score; CS: cross-sectional study; CSA: cross-sectional analysis; CV: timing of introduction of CF used as a continuous variable in the analysis; n/a: not applicable; PC: prospective cohort study; PE: point estimate; RCT: randomised controlled trial; RETRO: retrospective study; RC: retrospective cohort study; RoB: risk of bias.

# B.3. Obesity and overweight – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments
Jonsdottir et al. (2014)	1	RCT	n/a	Odds/risk of developing (at least) overweight	
Abraham et al. (2012)	3	PC	Growing-up in Scotland (GUS)	, , ,	



Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments	
Aris et al. (2018)	3	PC	Growing Up in Singapore Towards healthy Outcomes (GUSTO)	Odds/risk of developing (at least) overweight		
Azad et al. (2018)	2	PC	Canadian Healthy Infant Longitudinal Development (CHILD)	Odds/risk of developing (at least) overweight		
Barrera et al. (2016)	3	PC	Infant feeding practices study (IFPS) II and year 6 follow-up (Y6FU)	tudy (IFPS) II and year obesity		
Bell S et al. (2018)	3	PC	Study of Mothers and Infants Life Events Affecting Oral Health (SMILE)	Odds/risk of developing (at least) overweight		
Brophy et al. (2009)	2	PC	Millennium Cohort Study (MCS)	Odds/risk of developing obesity		
Burdette et al. (2006)	2	PC	n/a	% overweight		
Durmuş et al. (2014)	2	PC	Generation R	Odds/risk of developing (at least) overweight		
Fairley et al. (2015)	2	PC	Born in Bradford	Odds/risk of developing (at least) overweight		
Flores and Lin (2013a)	3	PC	Early Childhood Longitudinal Study-Birth Cohort (ECLS-B)	Timing of CF introduction in cases and controls (severe obesity)	No PE	
Flores and Lin (2013b)	3	PC	ECLS-B	Odds/risk of developing (at least) overweight		
			Timing of CF introduction in cases and controls (overweight)		No PE	
Gibbs and Forste (2014)	3	PC	ECLS-B	Odds/risk of developing obesity	Data from Moss and Yeaton (2014) considered	
Gooze et al. (2011)	3	PC	ECLS-B	Odds/risk of developing obesity	Data from Moss and Yeaton (2014) considered	
Hawkins et al. (2009)	2	PC	MCS	Odds/risk of developing (at least) overweight	Data from Massion et al (2016) were considered	
Hollis et al. (2016)	3	PC	Southampton Women's Survey (SWS)	Odds/risk of developing (at least) overweight		
Huh et al. (2011)	2	PC	Project Viva	Odds/risk of developing obesity		
Layte et al. (2014)	2	PC	n/a Odds/risk of developing obesity			
Mäkelä et al. (2014)	1	PC	Steps to Healthy Development (STEPS)	Odds/risk of developing (at least) overweight	CV	
				Odds/risk of developing obesity	CV	
Massion et al. (2016)	2	PC	MCS	Odds/risk of developing (at least) overweight		



Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments
Moschonis et al. (2017)	3	PC	Greek EuroPrevall	Odds/risk of developing (at least) overweight	
	3	PC	Generation XXI	Odds/risk of developing (at least) overweight	
	2	PC	Etude des déterminants pré et postnatals précoces du développement et de la santé (EDEN)	Odds/risk of developing (at least) overweight	
	2	PC	Avon Longitudinal Study of Parents and Children (ALSPAC)	Odds/risk of developing (at least) overweight	
Moss and Yeaton (2014)	3	PC	ECLS-B	Odds/risk of developing (at least) overweight	
				Odds/risk of developing obesity	
Neutzling et al. (2009)	2	PC	n/a	Odds/risk of developing (at least) overweight	
				Odds/risk of developing obesity	
Pluymen et al. (2018)	3	PC	Prevention and Incidence of Asthma and Mite Allergy (PIAMA)	Odds/risk of developing (at least) overweight	
Reilly et al. (2005)	2	PC	ALSPAC	Odds/risk of developing obesity	
Rios-Castillo et al. (2015)	3	PC	n/a	Timing of CF introduction in cases and controls (overweight)	
Rossiter and Evers (2013)	2	PC	Better Beginnings, Better Futures	Odds/risk of developing (at least) overweight	
Schack-Nielsen et al. (2010)	3	PC	Copenhagen Perinatal Cohort	Odds/risk of developing (at least) overweight	CV
				Odds/risk of developing obesity	CV
Schmidt Morgen et al. (2018)	3	PC	Danish National Birth Cohort (DNBC)	Odds/risk of developing (at least) overweight	
Seach et al. (2010)	3	PC	Melbourne Atopy Cohort Study (MACS)	Odds/risk of developing (at least) overweight	CV
Sirkka et al. (2018)	3	PC	Amsterdam Born Children and their Development (ABCD)	Odds/risk of developing (at least) overweight	
Wen et al. (2014)	1	PC	Healthy Beginnings	Odds/risk of developing (at least) overweight	
Wolman (1984)	3	PC	n/a	% obese	No PE
Zheng et al. (2015)	2	PC	Jiaxing Birth Cohort	Odds/risk of developing (at least) overweight	
				Odds/risk of developing obesity	
Birbilis et al. (2013)	3	RETRO: CS	n/a	Odds/risk of developing (at least) overweight	_
	3			Odds/risk of developing obesity	
		RETRO: CS	Viva La Familia	Odds/risk of developing (at least) overweight	CV



Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments
Cu et al. (2015)	3	RETRO: CC	n/a	Odds/risk of developing (at least) overweight	
Gillman et al. (2001)	3	RETRO: CS	Growing Up Today	Odds/risk of developing (at least) overweight	No PE, CV
				Odds/risk of developing obesity	No PE, CV
Gomes et al. (2010)	3	RETRO: n/a Timing of introduction of CF in cases and control (overweight)			
Gungor et al. (2010)	3	RETRO: CC	n/a	Timing of introduction of CF in cases and control (overweight)	
Hediger et al. (2001)	3	RETRO: CS	National Health and Nutrition Examination Survey (NHANES) III	Odds/risk of developing (at least) overweight	CV
Jiang et al. (2009)	3	RETRO: CC	n/a	Odds of having been introduced to CF < 4 months - overweight	
Jimenez-Cruz et al. (2010)	3	RETRO: CS	n/a	Odds/risk of developing (at least) overweight	
Lin et al. (2013)	3	RETRO: PC with exposure assessed after outcome	Hong Kong Children of 1997	Odds/risk of developing (at least) overweight	
Magalhaes et al. (2012)	3	RETRO: RC	n/a	Odds/risk of developing (at least) overweight	
Nascimento Simon et al. (2009)	3	RETRO: CS	n/a	Odds/risk of developing (at least) overweight	
Papoutsou et al. (2018)	3	RETRO: CSA of baseline data of a PC	Identification and prevention of dietary- and lifestyle-induced health effects in children and infants (IDEFICS)	Odds/risk of developing (at least) overweight	
Rathnayake et al. (2013)	3	RETRO: CC	n/a	Odds/risk of developing (at least) overweight	
Sandoval Jurado et al. (2016)	3	RETRO: CS	n/a	Odds/risk of developing (at least) overweight	
Sinigaglia et al. (2016)	3	RETRO: CS	n/a	Odds of being normal weight	CV
Škledar and Milošević (2015)	3	RETRO: CS	n/a	Odds/risk of developing (at least) overweight	
Sun et al. (2016)	3	RETRO: CSA of baseline data	HealthNuts	Odds/risk of developing (at least) overweight	
Vehapoglu et al. (2014)	3	RETRO: CS	n/a	Odds/risk of developing (at least) overweight	
Zhou et al. (2011)	3	RETRO: CS	n/a	Odds/risk of developing obesity	
				Odds of having been introduced to CF < 4 months - obesity	



CC: case–control study; CF: complementary food; CS: cross-sectional study; CSA: cross-sectional analysis; CV: timing of introduction of CF used as a continuous variable in the analysis; n/a: not applicable; PC: prospective cohort study; PE: point estimate; RCT: randomised controlled trial; RETRO: retrospective study; RoB: risk of bias.

# B.4. Body composition – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	Endpoints assessed	Additional comments
Mehta et al. (1998)	2	RCT	n/a	% fat mass Fat mass Lean mass	
Perkin et al. (2016)	1	RCT	Enquiring About Tolerance (EAT)	Subscapular SFT Triceps SFT	
Burdette et al. (2006)	2	PC	n/a Fat mass High fat mass		
Caleyachetty et al. (2013)	2	PC	Mysore Parthenon Study	% difference in triceps + subscapular SFT	CV
de Beer et al. (2015)	2	PC	Amsterdam Born Children and their Development (ABCD)	Fat free mass z-score Fat mass z-score	
Durmuş et al. (2012)					
Durmuş et al. (2014)					
Ejlerskov et al. (2015)	3	PC	Smabørns Kost og Trivsel (SKOT)	Fat mass index	
Huh et al. (2011)	3	PC	ProjectViva	Triceps + subscapular SFT	
Kramer et al. (1985b); Kramer et al. (1985a)	2	PC	n/a	Triceps + subscapular + suprailiac SFT	1985a: no PE 1985a and b: CV
Leary et al. (2015)	2	PC	Avon Longitudinal Study of Parents and Children (ALSPAC)	Fat mass z-score Lean mass z-score	
Morgan et al. (2004)	3	PA	n/a	Subscapular SFT gain Triceps SFT gain	
Moschonis et al.	3	PC	Greek EuroPrevall	Fat mass	
(2017)	3	PC	Generation XXI	Fat mass	
	2	PC	Etude des déterminants pré et postnatals précoces du développement et de la santé (EDEN)	Fat mass	
	2	PC	ALSPAC	Fat mass %fat mass	
Robinson et al. (2009)	2	PC	Southampton Women's Survey (SWS)	Fat mass Fat mass index	No PE, CV
van den Hooven 1 PC et al. (2016)		PC	Generation R	aBMC BMD Bone area	



Bibliography	RoB Tier	Study design	' STUDY DAMA FRANCINTS ASSE		Additional comments
Vogelezang et al. (2018)	2	PC	Generation R	Fat mass index z-score Fat-free mass index z-score	
Wilson et al. (1998)	3	PC	Dundee Infant Feeding Study	% fat mass	
Magalhaes et al. (2012)	3	RETRO: RC	n/a	High fat mass High fat in the android region	
Patterson et al. (1986)	3	RETRO: CS	n/a	Triceps SFT	No PE, CV
Zive et al. (1992)	3	RETRO: CSA of baseline data of a PC	Study of Children's Activity and Nutrition (SACN)	Triceps + subscapular SFT	No PE, CV

aBMC: areal bone mineral content; BMD: bone mineral density; CS: cross-sectional study; CSA: cross-sectional analysis; CV: timing of introduction of CF used as a continuous variable in the analysis; n/a: not applicable; PA: pooled analysis; PC: prospective cohort study; PE: point estimate; RC: retrospective cohort study; RCT: randomised controlled trial; RETRO: retrospective study; RoB: risk of bias; SFT: skinfold thickness.

# B.5. Atopic diseases – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments
Bellach et al. (2017)	1	RCT	Hen's Egg Allergy	No	No Egg	Food allergy	Symptomatic food allergy	
			Prevention (HEAP)			Sensitisation	sIgE	
Halpern et al. (1973)	3	RCT	n/a	No	Egg	Atopic disease	Atopic disease	
Palmer et al. (2013)	l. 1	RCT	Western Australian	Yes	Egg	Food allergy	Symptomatic food allergy	
			Solids Timing for Allergy Research (STAR)			Sensitisation	SPT	
Palmer et al. (2017)	2	RCT	Starting Time of Egg Protein	Yes	Egg	Asthma-like symptoms	Wheeze	
	1		(STEP)			Eczema	Symptomatic eczema	
	1					Eczema	Atopic dermatitis	
	1					Food allergy	Symptomatic food allergy	
	1					Sensitisation	SPT	



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments
Perkin et al. (2016)	1	RCT	Enquiring About Tolerance (EAT)	No	CF, cereals, egg, peanut, fish	Food allergy	Symptomatic food allergy	No PE
					Egg	Sensitisation	SPT	
					CF	Allergic rhinitis	Allergic rhinitis	
					CF	Atopic disease	Atopic disease	
					CF	Asthma-like symptoms	Wheeze	
Tan et al. (2017)	1	RCT	Beating Egg Allergy Trial	Yes	Egg	Eczema	Symptomatic eczema	
			(BEAT)			Food allergy	Probable food allergy	
						Sensitisation	SPT	
Alm et al. (2009)	3	PC	Infants of Western Sweden	No	Fish	Eczema	Symptomatic eczema	
Chuang et al. (2011)	2	PC	Taiwan Birth Cohort Study (TBCS)	No	CF	Eczema	Atopic dermatitis	
Dunlop et al. (2006)	3	PC	n/a	No	CF	Eczema	Atopic dermatitis	
Elbert et al. (2017)	3	PC	Generation R	No	Peanut	Food allergy	Symptomatic food allergy	
					Peanut	Sensitisation	SPT	
					Cereals, egg, peanut	Eczema	Symptomatic eczema	
Fergusson et al. (1981)	2	PC	Christ-church Child	No/Yes	CF,	Eczema	Symptomatic eczema	
			Developmental Study		Cereals, egg			No PE
Fergusson et al. (1990)	2	PC	Christ-church Child Developmental Study	No	Cereals, egg	Eczema	Symptomatic eczema	No PE
Fergusson et al. (1983)	3	PC	Christ-church Child Developmental Study	No	CF	Asthma-like symptoms	Asthma	
Filipiak et al. (2007)	3	PC	German Infant Nutritional	No/Yes	CF, cereals,	Eczema	Atopic dermatitis	
		Intervention Program (GINI)		egg, fish	Eczema	Symptomatic eczema		
Forsyth et al. (1993)	2	PC	Dundee Infant Feeding Study	No	CF	Eczema	Symptomatic eczema	
Gabet et al. (2016)	1	PC	Pollution and Asthma Risk: an Infant Study (PARIS)	No	Egg, fish	Sensitisation	sIgE	



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments	
Grimshaw et al. (2013)	1	NCC	Prevalence of Infant Food	No	CF	Food allergy	Symptomatic food allergy		
			Allergy Study (PIFA) (UK Euro-Prevall)				Timing of introduction of CF in cases and controls	No PE	
Hesselmar et al. (2010)	1	NCC	ALLERGY- FLORA	No	CF	Asthma-like symptoms	Timing of introduction of CFs in cases and controls	No PE	
						Eczema	Timing of introduction of CFs in cases and controls	No PE	
					Food allergy	Timing of introduction of CFs in cases and controls	No PE		
						Sensitisation	Timing of introduction of CFs in cases and controls	No PE	
Hetzner et al. (2009)	3	PC	Early Childhood Longitudinal Study-Birth Cohort (ECLS-B)	No	CF	Asthma-like symptoms	Asthma		
Hide and Guyer (1981)	3	PC	n/a	No	CF	Eczema	Symptomatic eczema		
Hua et al. (2017)	) 3 PC	<b>3</b> PC	Allergies		No	Aller- genic foods (fruit, egg, fish, shell fish, peanut)	Eczema	Atopic dermatitis	
					CF	Sensitisation	BioIC		
					CF	Sensitisation	Timing of introduction of CFs		
Huang et al. (2013)	3	PC	n/a	No	CF	Eczema	Symptomatic eczema		
Illi et al. (2004)	3	PC	Multicenter Allergy Study (MAS)	No	CF	Eczema	Atopic dermatitis	No PE	
Jonsson et al. (2017)	2	PC	FARM-FLORA	No	Cereals	Atopic disease	Atopic disease	CV	



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments
Joseph et al. (2011)	2	PC	Wayne County Health, Environment, Allergy and Asthma Longitudinal Study (WHEALS)	No/Yes	CF	Sensitisation	sIgE	
Kajosaari and Saarinen (1983)	3	PC	n/a	Yes	CF	Eczema	Atopic dermatitis	
						Food allergy	Symptomatic food allergy	
Kajosaari (1991, 1994)	3	PC	n/a	Yes	CF	Asthma-like symptoms	Asthma	
						Atopic disease	Atopic disease	
						Eczema	Atopic dermatitis	
Keijzers et al. (2018)	3	PC	Environments for Healthy Living (EFHL): Griffith Birth Cohort	No	CF	Atopic disease	Atopic disease	
Kiefte-de Jong et al. (2012)	3	PC	Generation R	No	Fish	Asthma-like symptoms	Wheeze in the past 12 months	
Kim et al. (2011)	3	PC	n/a	No	CF	Food allergy	Symptomatic food allergy	
Kurukulaaratchy et al. (2004)	3	PC	Isle of Wight Birth Cohort	No	CF	Asthma-like symptoms	Early-onset persistent wheeze	No PE
							Late-onset persistent wheeze	No PE
Larsson et al. (2008)	3	PC	Dampness in Building and	No	CF	Allergic rhinitis	Allergic rhinitis	
			Health (DBH)			Allergic rhinitis	Allergic rhinitis symptoms	
						Asthma-like symptoms	Asthma	
						Eczema	Symptomatic eczema	
Lawson et al. (2017)	2	Observ ational analysis of RCT	Learning Early About Peanut Allergy (LEAP)	Yes	Peanut	Food allergy	Symptomatic food allergy	
Lossius et al. (2018)	1	PC	Den norske mor og barn- undersøkelsen (MoBa)	No	CF	Asthma-like symptoms	Asthma	



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments
Luccioli et al. (2014)	2	PC	Infant feeding practices study (IFPS) II and year 6 follow- up (Y6FU)	No/Yes	CF	Food allergy	Diagnosed food allergy	
Marini et al. (1996)	2	PC	n/a	Yes	CF	Allergic rhinitis	Allergic rhinitis	
						Asthma-like	Recurrent	
						symptoms Eczema	wheeze	
				Voc		Eczema	Atopic dermatitis	
McGowan et al. (2015)	2	NCC	Urban Environment and Childhood Asthma (URECA)	Yes	CF	Food allergy	Timing of introduction of CFs in cases and controls	
						Sensitisation	Timing of introduction of CFs in cases and controls	
Mihrshahi et al. (2007)	2	PC	Childhood Asthma	Yes	CF	Asthma-like symptoms	Asthma	
			Prevention Study (CAPS)			Eczema	Symptomatic eczema	
						Sensitisation	SPT	
Moore et al. (1985)	2	PC	n/a	Yes	CF	Eczema	Symptomatic eczema	No PE
Morgan et al. (2004)	3	PA	n/a	No	CF	Asthma-like symptoms	Asthma	No PE
						Asthma-like symptoms	Wheeze	No PE
						Eczema	Symptomatic eczema	No PE
Nwaru et al. (2010)	2	PC	Type 1 Diabetes Prediction and Prevention (DIPP) nutrition	No	CF, cereals	Sensitisation	sIgE	Data from Nwaru et al. (2013c) (Allergy) considered
Nwaru et al. (2013c) (Allergy)	1	PC	DIPP nutrition	No/Yes	CF, cereals, fish	Sensitisation	sIgE	
Nwaru et al. (2013a)	3	PC	DIPP nutrition	No	CF, cereals,	Allergic rhinitis	Allergic rhinitis	
(J Allergy Clin Immunol)					fish	Asthma-like symptoms	Asthma	
						Eczema	Atopic dermatitis	No PE



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments
Nwaru et al. (2013b) (Clin Exp	2	PC	Study of Eczema and Asthma To	No/Yes	Cereals, egg, fish	Asthma-like symptoms	Wheeze in the past 12 months	
Allergy)			Observe the influence of Nutrition (SEATON)			Asthma-like symptoms	Wheeze without cold in the past 12 months	
						Asthma-like symptoms	Asthma	
						Eczema	Symptomatic eczema	
Poole et al. (2006)	3	PC	Diabetes Auto- immunity Study in the Young (DAISY)	No	Cereals	Food allergy	Probable food allergy	
Pöysä et al. (1991)	2	PC	n/a	Yes	CF	Atopic disease	Atopic disease	
Ranucci et al. (2018)	3	Observ ational analysis of an RCT	Prebiotics in Prevention of Atopy (PIPA)	Yes	CF	Eczema	Atopic dermatitis	
Roduit et al. (2012)	1	PC	Protection Against Allergy–Study in Rural Environments (PASTURE)	No/Yes	CF	Eczema	Atopic dermatitis with onset after 1 year	
Ruiz et al. (1992)	2	PC	n/a	Yes	CF, egg	Eczema	Atopic dermatitis	
Sandini et al. (2011)	2	PC	n/a	Yes	CF	Atopic disease	Atopic disease	No PE
						Food allergy	Symptomatic food allergy	No PE
						Eczema	Atopic dermatitis	No PE
						Asthma-like symptoms	Asthma	No PE
						Allergic rhinitis	Allergic rhinitis	No PE
Sariachvili et al. (2010)	3	NCC	Prospective Cohort on the	No	CF	Eczema	Symptomatic eczema	
			Influence of Perinatal Factors on the Occurrence of Asthma and Allergies (PIPO)			Eczema	Odds of having been introduced to CF < 4 months	
Savilahti et al. (1987)	2	PC	n/a	No	CF	Atopic disease	Atopic disease	No PE, CV
Schoetzau et al. (2002)	2	PC	GINI	Yes	CF	Eczema	Atopic dermatitis	



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments
Snijders et al. (2008)	3	PC	Kind, ouders en	No	CF	Asthma-like symptoms	Recurrent wheeze	
			gezondheid: aandacht voor			Eczema	Symptomatic eczema	
			leefstijl en aanleg			Eczema	Atopic dermatitis	
			(KOALA)			Sensitisation	sIgE	
Strachan et al. (1996)	3	PC	Sheffield child development study	No	CF	Allergic rhinitis	Allergic rhinitis	
Taylor-Robinson et al. (2016)	3	PC	Millennium Cohort Study (MCS)	No	CF	Eczema	Symptomatic eczema	
Tham et al. (2017)	2	PC	Growing Up in Singapore Towards healthy Outcomes (GUSTO)	No	Egg	Food allergy	Symptomatic food allergy	No PE
Tran et al. (2017)	2	PC	Canadian Healthy Infant Longitudinal Develop-ment (CHILD) Study	No	Egg	Sensitisation	SPT	
Tromp et al. (2011)	3	PC	Generation R	No	Cereals, egg,	Asthma-like symptoms	Wheeze	
					peanut, soy	Eczema	Symptomatic eczema	
Van Asperen et al. (1984)	3	PC	n/a	Yes	CF	Allergic rhinitis	Allergic rhinitis	
						Asthma-like symptoms	Wheeze	
						Eczema	Symptomatic eczema	
Venter et al. (2009)	3	PC	Food Allergy and	No	CF	Food allergy	Symptomatic food allergy	
			Intolerance Research (FAIR)			Sensitisation	SPT	
Venter et al. (2016)	1	NCC	FAIR	No	CF	Food allergy	Symptomatic food allergy	CV
Virtanen et al. (2010)	2	PC	DIPP nutrition	No	Cereals, fish	Allergic rhinitis	Allergic rhinitis	
						Asthma-like symptoms	Persistent asthma	
Wilson et al. (1998)	2	PC	Dundee Infant Feeding Study	No	CF	Asthma-like symptoms	Asthma	No PE
- •						Asthma-like symptoms	Wheeze	No PE
Wright et al. (1994)	3	PC	Tucson Children's Respiratory Study	No	CF	Allergic rhinitis	Allergic rhinitis	



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments
Zutavern et al. (2004)	2	PC	n/a	No	CF, cereals, fish	Asthma-like symptoms	Pre-school wheeze without cold in the past 12 months	
						Asthma-like symptoms	Transient wheeze without cold in the past 12 months	
						Eczema	Symptomatic eczema	
Zutavern et al. (2006)	3	PC	Einfluss von Lebensbe-	No	CF, cereals,	Eczema	Atopic dermatitis	
			dingungen und Verhaltens-		egg, fish	Eczema	Symptomatic eczema	
	2		weisen auf die Entwick-lung von Immun- system und Allergien (LISA)		CF	Sensitisation	sIgE	
Zutavern et al. (2008)	3	PC	LISA	No	CF	Allergic rhinitis	Allergic rhinitis	
` ,						Allergic rhinitis	Allergic rhinitis symptoms	
						Asthma-like symptoms	Asthma	
						Asthma-like	Asthma	
						symptoms	symptoms	
						Eczema	Symptomatic eczema	
						Sensitisation	sIgE	
Alkazemi et al. (2018)	3	RETRO: CC	n/a	No	CF	Food allergy	Symptomatic food allergy	
Bascunan Gamboa et al. (2012)	3	RETRO: CC	n/a	No	CF	Food allergy	Symptomatic food allergy	No PE
DesRoches et al. (2010)	3	RETRO: CC	n/a	No	CF	Food allergy	Timing of introduction of CFs in cases and controls	
Forster et al. (1990)	3	RETRO: CS	n/a	No	CF	Atopic disease	Atopic disease	No PE, CV
Haileamlak et al. (2005)	3	RETRO: CC	n/a	No	CF	Eczema	Atopic dermatitis	
Hatakka et al. (2008)	3	RETRO: CS	n/a	No	CF	Atopic disease	Atopic disease	
Karunasekera et al. (2001)	3	RETRO: CC	n/a	No	CF	Asthma-like symptoms	Asthma	



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments
Koplin et al. (2010)	3	RETRO: CSA of baseline data of a PC	HealthNuts	Yes	CF, egg	Food allergy	Symptomatic food allergy	
Koplin et al. (2012)	3	RETRO: CSA of baseline data of a PC	HealthNuts	No	egg	Food allergy	Symptomatic food allergy	
Kramer (1981)	3	RETRO: CC	n/a	No	CF	Eczema	Timing of introduction of CFs in cases and controls	No PE
Kucukosmanoglu et al. (2008)	3	RETRO: CC	n/a	No	CF	Sensitisation	Timing of introduction of CFs in cases and controls – sensitisation (egg)	
Kumar et al. (2010)	3	RETRO: CS	n/a	No	Cereals, allergenic foods (egg, peanut, tree nut, shellfish, fish, sesame)	Food allergy	Symptomatic food allergy	
Lee et al. (2017)	3	RETRO: CS	Korea National Health and Nutrition Examination Survey (KNHANES) IV and V	No	CF	Eczema	Atopic dermatitis	
Nathan et al. (2012)	3	RETRO: CC	n/a	No	CF	Asthma-like symptoms	Asthma	
Parihar et al. (1984)	3	RETRO: CC	n/a	No	CF	Atopic disease	Atopic disease	
Peters et al. (2015)	3	RETRO: CSA of baseline data of a PC	HealthNuts	Yes	egg	Eczema	Symptomatic eczema	
Sahakyan et al. (2006)	3	RETRO: CC	n/a	No	CF	Eczema	Atopic dermatitis	
Sicherer et al. (2010)	3	RETRO: CC	n/a	Yes	CF	Sensitisation	Sensitisation (peanut)	CV
Suryati et al. (2006)	3	RETRO: CS	n/a	Yes	CF, egg	Eczema	Atopic dermatitis	
Takahashi et al. (1999)	3	RETRO: CS	n/a	No	CF, egg	Eczema	Atopic dermatitis	



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Outcome	Endpoint	Additional comments
Turati et al. (2016)	3	RETRO: CC	n/a	No	CF	Eczema	Atopic dermatitis	
Yung et al. (2015)	3	RETRO: CC	n/a	No	CF	Atopic disease	Timing of introduction of CFs in cases and controls	
Zheng et al. (2016)	3	RETRO: CS	n/a	No	CF	Eczema	Symptomatic eczema	

BioIC: automated microfluidic-based immunoassay system; CC: case—control study, CF: complementary food; CS: cross-sectional study; CSA: cross-sectional analysis; CV: timing of introduction of CF used as a continuous variable in the analysis; n/a: not applicable; NCC: nested case—control study; PC: prospective cohort study; PE: point estimate; RCT: randomised controlled trial; RETRO: retrospective study; RoB: risk of bias; sIgE: specific immunoglobulin E; SPT: skin prick test.

# B.6. Coeliac disease – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Endpoint assessed	Additional comments
Vriezinga et al. (2014)	1	RCT	Prevent Coeliac Disease (PreventCD)	Yes	Gluten	Coeliac disease Coeliac disease autoimmunity	
Andren Aronson et al. (2015)	1	PC	The Environmental Determinants of Diabetes in the Young (TEDDY)	Yes	Gluten	Coeliac disease Coeliac disease autoimmunity	
Andren Aronson et al. (2016)	1	NCC	Swedish TEDDY	Yes	Gluten	Coeliac disease Timing of introduction of gluten in cases and controls	CV
Chmiel et al. (2015)	1	PC	BABYDIET + BABYDIAB	Yes	Gluten	Coeliac disease autoimmunity	
Hummel et al. (2007)	1	PC	BABYDIAB	Yes	Gluten	Coeliac disease autoimmunity	
Jansen et al. (2014)	1	PC	Generation R	Yes	Gluten	Coeliac disease autoimmunity	
Norris et al. (2005)	1	PC	Diabetes Autoimmunity Study in the Young (DAISY)	Yes	Gluten	Coeliac disease Coeliac disease autoimmunity	
Savilahti et al. (2018)	3	NCC	n/a	Yes	Gluten	Timing of introduction of gluten in cases and controls	
Størdal et al. (2013)	1	PC	Den norske mor og barn- undersøkelsen (MoBa)	No	Gluten	Coeliac disease	
Welander et al. (2010)	2	PC	Alla Barn i Sydöstra Sverige (ABIS)	No	Gluten	Coeliac disease	
Ziegler et al. (2003)	1	PC	BABYDIAB	Yes	Gluten	Coeliac disease autoimmunity	



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Endpoint assessed	Additional comments
Ascher et al. (1997)	3	RETRO: SCC	n/a	Yes	Gluten	Timing of introduction of gluten in cases and controls	
Auricchio et al. (1983)	3	RETRO: CC	n/a	Yes	Gluten	Coeliac disease	
Greco et al. (1988)	3	RETRO: CC	n/a	Yes	Gluten	Coeliac disease	
Ivarsson et al. (2002)	3	RETRO: CC	n/a	No	Gluten	Coeliac disease	
Myleus et al. (2012)	3	RETRO: CC	n/a	No	Gluten	Coeliac disease	CV
Peters et al. (2001)	3	RETRO: CC	n/a	No	Gluten	Coeliac disease	

CC: case–control study; CV: timing of introduction of CF used as a continuous variable in the analysis; n/a: not applicable; NCC: nested case–control study; PC: prospective cohort study; RCT: randomised controlled trial; RETRO: retrospective study; RoB: risk of bias; SCC: sibling case–control study (i.e. diseased cases and their healthy siblings).

# B.7. Type 1 diabetes mellitus – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Endpoint assessed	Additional comments
Chmiel et al.	1	PC	BABYDIET +	Yes	Gluten	Islet autoimmunity	
(2015)			BABYDIAB			Multiple islet autoimmunity	
						T1DM	
Couper et al. (2009)	1	PC	Australian BabyDiab	Yes	Gluten, non- gluten cereal	Islet autoimmunity	
Frederiksen et al. (2015)	1	PC	Diabetes Autoimmunity Study in the Young (DAISY)	Yes	CF, gluten	T1DM	
Hakola et al. (2018)	1	PC	Type 1 Diabetes Prediction and	Yes	CF, gluten	Advanced islet autoimmunity	
			Prevention Study (DIPP) nutrition		CF, gluten	T1DM	
Lund-Blix et al.	1	PC	Miljøårsaker til	Yes	Gluten	Islet autoimmunity	
(2015)			type 1-diabetes (MIDIA)		CF, gluten	T1DM	
Norris et al. (2003)	1	PC	DAISY	Yes	Gluten	Islet autoimmunity	
Savilahti and Saarinen (2009)	2	NCC	n/a	No	CF	T1DM	
Uusitalo et al. (2018)	1	PC	Environmental Determinants of Diabetes in the Young (TEDDY)	Yes	Gluten	Islet autoimmunity	
Virtanen et al. (2006)	1	PC	DIPP nutrition	Yes	CF, gluten	Advanced islet autoimmunity	Data from Hakola et al. (2018) considered



Bibliography	RoB Tier	Study design	Study name	At-risk group	Food	Endpoint assessed	Additional comments
Virtanen et al. (2011)	1	PC	DIPP nutrition	Yes	CF, gluten	Islet autoimmunity	Data from Hakola et al. (2018) considered
Wahlberg et al. (2006)	2	PC	Alla Barn i Sydöstra Sverige (ABIS)	No	Gluten	Islet autoimmunity	
Welander et al. (2010)	2	PC	ABIS	No	Gluten	T1DM	
Ziegler et al. (2003)	1	PC	BABYDIAB	Yes	Gluten	Islet autoimmunity	
Bezzera Alves et al. (2012)	3	RETRO: SCC	n/a	No	Gluten	Timing of introduction of gluten in cases and controls	
EURODIAB Substudy 2 Study Group (2002)	3	RETRO: CC	EURODIAB substudy 2	No	CF	T1DM	
Kostraba et al. (1993)	3	RETRO: CC	n/a	No/Yes	CF	T1DM	
Liese et al. (2012)	3	RETRO: CC	Search for Diabetes in Youth' case- control (SEARCH CC) study	No	CF	Timing of introduction of CFs in cases and controls	
Meloni et al. (1997)	3	RETRO: CC	n/a	No	CF	T1DM	
Perez-Bravo et al. (1996)	3	RETRO: CC	n/a	No	CF	Timing of introduction of CFs in cases and controls	
Rabiei and Reza (2012)	3	RETRO: CC	n/a	No	CF	T1DM	
Rosenbauer et al. (2008)	3	RETRO: CC	n/a	No	CF	T1DM	
Stene et al., (2003)	3	RETRO: CC	n/a	No	CF	T1DM	
Visalli et al. (2003)	3	RETRO: CC	n/a	No	CF	T1DM	No PE

CC: case—control study; CF: complementary food; CV: timing of introduction of CF used as a continuous variable in the analysis; n/a: not applicable; NCC: nested case—control study; PC: prospective cohort study; PE: point estimate; RETRO: retrospective study; RoB: risk of bias; SCC: sibling case—control (i.e. diseased cases and their healthy siblings); T1DM: type 1 diabetes mellitus.

# B.8. Risk factors for cardiovascular diseases – individuals born at term or mixed populations (sorted by study design and author)

Bibliography		Study design	Study name	Endpoint assessed	Additional comments
de Beer et al. (2016)	2	PC	Amsterdam Born Children and their Development (ABCD)	Systolic blood pressure Diastolic blood pressure	



Bibliography	RoB Tier	Study design	Study name	Endpoint assessed	Additional comments
de Jonge et al. (2013)	2	PC	Generation R	Systolic blood pressure Diastolic blood pressure Carotid-femoral pulse wave velocity Aortic root diameter Fractional shortening Left atrial diameter Left ventricular diameter Left ventricular mass	
Gishti et al. (2014)	2	PC	Generation R	Total cholesterol z-scores HDL-cholesterol z-scores LDL-cholesterol z-scores Triglycerides z-scores Cluster of cardiometabolic risk factors	
Gishti et al. (2016)	2	PC	Generation R	Retinal arteriolar calibers Retinal venular calibers	
Martin et al. (2004)	2	PC	Avon Longitudinal Study of Parents and Children (ALSPAC)	Systolic blood pressure Diastolic blood pressure	
Wilson et al. (1998)	1	PC	Dundee Infant Feeding Study	Systolic blood pressure Diastolic blood pressure	
Behairy et al. (2017)	3	RETRO: CS	n/a	HDL-cholesterol LDL-cholesterol	
Brambilla et al. (2016)	3	RETRO: CS	n/a	Systolic blood pressure z-scores Diastolic blood pressure z- scores	

CS: cross-sectional study; HDL: high density lipoproteins; LDL: low density lipoproteins; n/a: not applicable; PC: prospective cohort study; RETRO: retrospective study.

# B.9. Infections – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	Outcome assessed	Endpoint assessed	Additional comments
Cohen et al. (1994)	2	RCT	n/a	GI infections RT infections	Diarrhoea URTI URTI with fever	
Cohen et al. (1995a)	2	RCT	n/a	GI infections RT infections Infections	Diarrhoea URTI Fever	
Dewey et al. (1999)	2	RCT	n/a	GI infections RT infections	Diarrhoea URTI	
Perkin et al. (2016)	2	RCT	Enquiring About Tolerance (EAT)	GI infections RT infections	Diarrhoea Vomiting URTI LRTI	
Forsyth et al. (1993)	1	PC	Dundee Infant Feeding Study	GI infections RT infections	Diarrhoea or vomiting URTI	



Bibliography	RoB Tier	Study design	Study name	Outcome assessed	Endpoint assessed	Additional comments
Heinig et al. (1993)	3	PC	Davis Area Research on Lactation, Infant Nutrition and Growth (DARLING)	Infections	Respiratory illness, diarrhoea, otitis media, unexplained fevers, vomiting, chicken pox and other non- respiratory, presumably viral infections	
Lopez-Alarcon et al. (1997)	1	PC	n/a	GI infections	Diarrhoea	CV
Morgan et al. (2004)	3	PA	n/a	GI infections RT infections	Gastroenteritis LRTI	
Nopporniertwong and Tantibhaedhyangkul (2016)	2	PC	n/a	GI infections RT infections	Not specified	
Størdal et al. (2017)	1	PC	Den norske mor og barn-under- søkelsen (MoBa)	Infections	Hospitalisation for infection	
Wright et al. (2004)	3	PC	Millennium Baby Study	GI infections RT infections	Diarrhoea LRTI URTI	
Quigley et al. (2009)	3	RETRO: CSA of baseline data of a PC	Millennium Cohort Study (MCS)		Diarrhoea LRTI	

CSA: cross-sectional analysis; CV: timing of introduction of CF used as a continuous variable in the analysis; GI: gastrointestinal; LRTI: lower respiratory tract infections; n/a: not applicable; PA: pooled analysis; PC: prospective cohort study; RCT: randomised controlled trial; RETRO: retrospective study; RoB: risk of bias; RT: respiratory tract; URTI: upper respiratory tract infections.

# **B.10.** Sleep-related endpoints – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	Endpoint assessed	Additional comments
Bainbridge et al. (1996)	2	RCT	n/a	Night time sleep duration	
Perkin et al. (2018)	2	RCT	Enquiring About Tolerance (EAT)	Night time sleep duration Night wakings Sleep problems	
Heinig et al. (1993)	3	PC	Davis Area Research on Lactation, Infant Nutrition and Growth (DARLING)	Sleep time (unspecified)	
Morgan et al. (2004)	3	PA	n/a	Night time sleep duration	
Nevarez et al. (2010)	3	PC	Project Viva	24-h sleep duration	

n/a: not applicable; PA: pooled analysis; PC: prospective cohort study; RCT: randomised controlled trial; RoB: risk of bias.



# **B.11.** Infant and child development – individuals born at term or mixed populations (sorted by study design and author)

Bibliography	graphy RoB Tier Study design Study name Endpoint assessed		Additional comments		
Jonsdottir et al. (2013)	1	RCT	n/a	Risk of developmental delay Gross motor skills Fine motor skills	
Veena et al. (2010)	3	PC	Mysore Parthenon study	Language development Learning ability Memory span Pattern Reasoning Language production Visuo-spatial problem solving Visual-motor processing speed	CV
Metwally et al. (2016)	3	RETRO: CS	n/a	Odds of being below average of the socio-emotional composite score socio-emotional composite score of Bayley III	

CS: cross-sectional study; CV: timing of introduction of CF used as a continuous variable in the analysis; n/a: not applicable; PC: prospective cohort study; RCT: randomised controlled trial; RETRO: retrospective study; RoB: risk of bias.

# B.12. Nutrient status – infants born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	Endpoint assessed	Additional comments
Dewey et al. (1998)	2	RCT	n/a	SF < 12 μg/L Hb < 110 g/L	Same RCT as Cohen et al. (1995a), reported in previous sections
Dewey et al. (2004)	2	RCT	n/a	SF < 12 μg/L	Same RCT as Dewey et al. (1999), reported in previous sections
Kattelmann et al. (2001)	2	RCT	n/a	$SF < 12~\mu g/L \\ Hb < 110~g/L$	Same RCT as Mehta et al. (1998), reported in previous sections
Jonsdottir et al. (2012)	1	RCT	n/a	SF < 12 μg/L	
Libuda et al. (2016)	2	PC	Polyunsaturated fatty acids in child nutrition—A German multimodal optimisation study (PINGU)	$SF < 12 \ \mu g/L \\ SF < 12 \ + \\ Hb < 105 \ g/L$	
Meinzen-Derr et al. (2006)	2	PC	n/a	Hb < 100 g/L	CV
Hong et al. (2017)	3	RETRO: CS	n/a	SF < 12 ng/mL, MCV < 70 fl and TfS < 10%	

CS: cross-sectional study; CV: timing of introduction of CF used as a continuous variable in the analysis; Hb: haemoglobin; MCV: mean corpuscular volume; n/a: not applicable; PC: prospective cohort study; RCT: randomised controlled trial; RETRO: retrospective study; RoB: risk of bias; SF: serum ferritin; TfS: transferrin saturation.



# B.13. Food preferences and eating behaviours – infants born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	Food	Endpoint assessed	Additional comments
Cohen et al. (1995b)	3	RCT	n/a	CF	Composite food acceptance scores Food intake at midday meal Number of food groups consumed per day	
Abraham et al. (2012)	2	PC	Growing Up in Scotland (GUS)	CF	Positive eating pattern	
Bielemann et al. (2018)	3	PC	Pelotas Birth Cohort	CF	Proportion of daily energy intake from ultra-processed foods	
Brown and Lee (2012)	1	PC	n/a	CF	Food responsiveness Satiety responsiveness	CV
Burnier et al. (2011)	1	PC	Québec Longitudinal Study of Child Development (QLSCD)	Vegetables	Vegetable intake	
de Barse et al. (2017)	2	PC	Generation R	CF Fruit Vegetables	Food fussiness	
de Lauzon- Guillain et al. (2013)	2	PC	Avon Longitudinal Study of Parents and Children (ALSPAC)	Fruit Vegetables	Fruit intake Vegetable intake	No PE
()	2	3	Étude des déterminants pré et post natals précoces de la santé et de développement de l'enfant (EDEN)			
	3		Generation XXI			
	3		Greek EuroPrevall			
Emmett et al. (2018)	3	PC	ALSPAC	CF	Picky eating behaviour	
Grimm et al. (2014)	2	PC	Infant feeding practices II study and its year 6 follow-up (IFPS II/Y6FU)	Fruit Vegetables	Fruit and vegetable intake	
Hollis et al. (2016)	2	PC	Southampton Women's Survey (SWS)	CF	Feeding difficulties	
Jones et al.	2	PC	ALSPAC	Fruit	Food diversity of	
(2015)	2		EDEN	Vegetables	'healthy' foods	
	3		Generation XXI			
	3		Greek EuroPrevall			
Lange et al. (2013)	2	PC	Observatory of Food Preferences in Infants and Children (OPALINE)	CF Fruit Vegetables	Acceptance of new foods, fruit and vegetables	CV and no PE
Möller et al. (2013)	2	PC	Amsterdam Born Children and their Development (ABCD)	CF	Enjoyment of food Food responsiveness Fruit intake Satiety responsiveness Slowness in eating Vegetable intake	



Bibliography	RoB Tier	Study design	Study name	Food	Endpoint assessed	Additional comments
Bell LK et al. (2018)	3	RETRO: CS	How and what parents feed their children: an international study	CF	Food neophobia/ acceptance of new foods	CV
Cooke et al. (2004)	3	RETRO: CS	n/a	Fruit Vegetables	Frequency of fruit consumption Frequency of vegetable consumption	
Okubo et al. (2016)	3	RETRO: CSA of baseline data of a PC	Osaka Maternal and Child Health Study (OMCHS)	CF	Odds of consuming < 1 serving of fruit per day Odds of consuming < 1 serving of vegetables per day	
Shim et al. (2011)	3	RETRO: CSA of baseline data of a PC	Synergistic Theory and Research on Obesity and Nutrition Group Kids (STRONG Kids)	CF	Food neophobia/ acceptance of new foods	

CF: complementary food; CS: cross-sectional study; CSA: cross-sectional analysis; CV: timing of introduction of CF used as a continuous variable in the analysis; n/a: not available; PC: prospective cohort study; PE: point estimate; RCT: randomised controlled trial; RETRO: retrospective study; RoB: risk of bias.

# B.14. Other health outcomes – infants born at term or mixed populations (sorted by study design and author)

Bibliography	RoB Tier	Study design	Study name	Food	Endpoint assessed	Additional comments
Ayonrinde et al. (2017)	3	PC	Western Australian Pregnancy Cohort (Raine Cohort)	CF	Non-alcoholic fatty liver disease	
Kindgren et al. (2017)	2	NCC	Alla Barn i Sydöstra Sverige (ABIS)	Gluten	Juvenile idiopathic arthritis	
Tanaka et al. (2013)	3	PC	Osaka Maternal and Child Health Study (OMCHS)	CF	Early childhood dental caries	
Ellis et al. (2012)	3	RETRO: CC	Childhood Arthritis Risk factor Identification Study (CLARITY)	CF	Juvenile arthritis – Timing of introduction of CFs in cases and controls	
Fort et al. (1990)	3	RETRO: CC	n/a	CF	Autoimmune thyroid disease – Timing of introduction of CFs in cases and controls	
Strisciuglio et al. (2017)	3	RETRO: CC	n/a	Gluten	Crohn's disease Ulcerative colitis	

CC: case–control study; CF: complementary food; n/a: not applicable; NCC: nested case–control study; PC: prospective cohort study; RETRO: retrospective study; RoB: risk of bias.



# B.15. Outcomes in individuals born preterm (sorted by study design and author)

Bibliography	Tier	Study design	Study name	Food	Endpoint assessed	Additional comments
Gupta et al. (2017)	1	RCT	n/a	CF	WAZ Attained body weight L(H)AZ Attained body length (height) HCZ Attained HC BMIZ Attained BMI BMD Lean + BMC mass % fat mass Fat mass Total cholesterol HDL-cholesterol LDL-cholesterol VLDL-cholesterol Triglycerides Systolic blood pressure Diastolic blood pressure Iron status	
Morgan et al. (2004)	3	PA n/a CF Attained body weight Weight gain Attained body length Length gain HC gain Subscapular SFT gain Triceps SFT gain Asthma-like symptoms Eczema		No PE No PE No PE No PE No PE No PE		
Spiegler et al. (2015)	3	PC	German Neonatal Network (GNN)	CF	WAZ Attained body weight L(H)AZ Attained body length (height)	CV
Yrjänä et al. (2018)	3	RETRO: CC	n/a	CF	Eczema - Timing of introduction of CFs in cases and controls Food allergy - Timing of introduction of CFs in cases and controls	No PE (eczema)

BMC: bone mineral content; BMD: bone mineral density; BMI: body mass index; BMIZ: body mass index-for age z-scores; CC: case-control study; CF: complementary food; CV: timing of introduction of complementary foods used as a continuous variable in the analysis; GI: gastrointestinal; HC: head circumference; HCZ: head circumference-for-age z-scores; HDL: high density lipoprotein; LDL: low density lipoprotein; L(H)AZ: length (height)-for-age z-scores; LRTI: lower respiratory tract infections; n/a: not applicable; PA: pooled analysis; PC: prospective cohort study; PE: point estimate; RCT: randomised controlled trial; RETRO: retrospective study; SFT: skin fold thickness; VLDL: very low density lipoprotein; WAZ: weight-for-age z-scores.



## Appendix C – Specific items considered in the appraisal of studies

The approach followed by the Panel for the assessment of the risk of bias (RoB) was described in brief in the protocol (EFSA, 2017b) and in details in Section 2.2.2 of this scientific opinion.

The specific items considered by the Panel are described below, as well as how they were judged according to a four-level rating scale.

#### 1. Timing of introduction of CFs for observational studies (detection bias)

#### **Definitely low RoB**

• Assessment of the timing of introduction of CFs at multiple time points or diaries in the first six months of life with complete information on how the assessment was done.

#### **Probably low RoB**

- · Assessment of the timing of introduction of CFs
  - o at a single time point during the first six months of life (irrespective of the method used)
  - during the second half of infancy (irrespective of the method used)
  - o between or at 1 and 2 years of age if elicited by a face-to-face interview.

#### **Probably high RoB**

- Assessment of the timing of introduction of CFs
  - between or at 1 and 2 years of age if obtained through a caregiver-completed questionnaire or by a phone interview
- Insufficient information available for a judgment.

#### **Definitely high RoB**

 Assessment of the timing of introduction of CFs >2 years of age (irrespective of the method used).

#### 2. Assessment of compliance with the intervention (RCTs)

#### **Definitely low RoB**

 Assessment of the compliance with the intervention at several time points using reliable methods (e.g. home visits by trained research staff, diaries, number of sachets or amount of intervention products returned).

#### **Probably low RoB**

• Assessment of the compliance with the intervention with some information on the modalities missing (the extent of missing information determining the low or high RoB decisions).

#### **Probably high RoB**

This category was not used.

#### **Definitely high RoB**

Compliance not assessed.

#### 3. Outcome assessment for those outcomes addressed in the opinion<sup>50</sup> (detection bias)

## 3.1. Outcomes that involve anthropometric measurements (i.e. body weight, body length/height, HC, BMI, overweight and obesity)

#### **Definitely low RoB**

Measurements performed for the purpose of the study by trained personnel with either full
information on the equipment used (using appropriate equipment) or reference to specific
(standard) procedure that were followed (e.g. WHO manual).

<sup>&</sup>lt;sup>50</sup> Outcomes assessed in single studies only and which have not been used in the assessment are not listed.



#### **Probably low RoB**

 Measurements performed for the purpose of the study by trained personnel, but with some information missing (e.g. type of scale) or reference to not further defined standard procedures.

#### **Probably high RoB**

- Measurements not performed for the purpose of the study (e.g. transcripts from health cards of measurements taken at last family doctor's or paediatrician's visit).
- Insufficient information available for a judgement.

#### **Definitely high RoB**

• Self- or caregivers' reports of self-measurements.

#### 3.2. Body composition

#### Fat mass

#### **Definitely low RoB**

Measurements taken by DXA.

#### **Probably high RoB**

Measurements taken by BIA.

#### **Probably or definitely high RoB**

These categories were not used for this outcome.

#### Skinfold thickness

#### **Definitely low RoB**

• Triplicate measurements performed by trained personnel with calibrated calipers following standard procedures.

#### **Probably low RoB**

At least two measurements performed by trained personnel.

#### **Probably high RoB**

- Single measurements by trained personnel.
- Insufficient information available for a judgement.

#### **Definitely high RoB**

Measurements by untrained individuals.

#### 3.3. Atopic diseases

#### Asthma-like symptoms, eczema and allergic rhinitis

#### **Definitely low RoB**

Diagnosis made by the study physician for the purpose of the study using pre-defined criteria.

#### **Probably low RoB**

 Caregivers' reports of family doctors'/physicians' diagnoses plus the use of medication or other treatments for the disease.

#### **Probably high RoB**

- Caregivers' reports of family doctors'/physicians' diagnoses.
- Caregivers' reports of symptoms.

#### **Definitely high RoB**

This category was not used.



#### Symptomatic food allergy and food sensitisation

#### **Definitely low RoB**

- Diagnoses based on double-blind placebo-controlled food challenge (a minor number of cases of food allergy diagnosed by other means were acceptable).
- Sensitisation (sIgE, skin prick test (SPT)) measured by well-accepted standard methods using cut-offs usually used in clinical practice.

### **Probably low RoB**

- Diagnoses based on open food challenge.
- Caregivers' report of convincing symptoms of food allergy (e.g. vomiting, eczema) after ingestion of the food plus other supporting evidence (e.g. food avoidance, positive SPT).
- Sensitisation measured by well-accepted standard methods but using cut-offs that are not usually used in clinical practice.

#### **Probably high RoB**

- Caregivers' reports of family doctors'/physicians' diagnoses.
- Caregivers' reports of symptoms.

#### **Definitely high RoB**

• Unclear assessment and/or criteria.

#### 3.4. Coeliac disease

#### **Definitely low RoB**

- Assessment according to the ESPHGAN diagnostic criteria (Husby et al., 2012).
- Coeliac disease autoimmunity assessed by tissue transglutaminase (tTG = TGC = TGM2) autoantibody measurements using well-accepted standard methods (NB: independent of the cut-off used, usually IgA antibodies to tTG are measured, in case of IgA deficiency IgG can be used some studies used a combination).

#### **Probably low RoB**

- Caregivers' reports of coeliac disease diagnoses
- Combination of various method to obtain information on coeliac disease diagnosis.

#### **Probably or definitely high RoB**

These categories were not used.

#### 3.5. Type 1 diabetes mellitus

#### **Definitely low RoB**

- Based on well accepted criteria for diagnosis of type 1 diabetes mellitus (e.g. criteria of WHO
  or the American Diabetes Association).
- Diabetes autoimmunity assessed by islet autoantibodies using well-accepted standard methods (NB: independent of the cut-off used, and the autoantibodies assessed).

#### Probably low, high or definitely high RoB

These categories were not used.

#### 3.6 Blood pressure

## **Definitely low RoB**

• Automatic measurements with an average of at least two readings taken, including a full description of how measurements were taken (e.g. after rest in supine position).

#### **Probably low RoB**

- Automatic measurements, but with details of the exact procedures lacking.
- Manual measurements.



#### Probably and definitely high

These categories were not used.

#### 3.7. Infections

#### **Definitely low RoB**

This category was not used.

#### **Probably low RoB**

- Hospitalisation for infection.
- Caregivers' recording of symptoms plus confirmation by research staff or medical doctors.
- For diarrhoea, daily records of stool consistency and frequency.

#### **Probably high RoB**

- Caregivers' report of symptoms.
- Insufficient information.

#### **Definitely high RoB**

This category was not used.

#### 3.8. Sleep-related endpoints

#### **Probably and definitely low RoB**

These categories were not used.

#### **Probably high RoB**

 Measurements based on a validated sleep questionnaire that assessed sleep over the past week (this was not considered sufficiently precise for the purpose of the present assessment).

#### **Definitely high RoB**

• Caregivers' reports.

#### 3.9. Infant and child development

#### **Probably low RoB**

Assessments based on validated tools to assess infant and child development.

#### Definitely low, probably high or definitely high RoB

These categories were not used.

#### 3.10. Nutrient status

#### **Definitely low RoB**

Measurements performed according to standard criteria.

#### Probably low or high or definitely high RoB

These categories were not used.

#### 3.11. Food preferences and eating behaviours

#### **Definitely low RoB**

This category was not used.

#### **Probably low RoB**

- Use of validated questionnaires.
- Use of non-validated tools but caregivers were provided with a detailed description and examples how behaviours should be rated.
- Use of 24-h dietary recalls.
- Use of food frequency questionnaires to assess frequency of consumption/number of servings.



• Use of validated food frequency questionnaires to assess amount of consumption for which details on their validation is publicly available and could be assessed.

#### **Probably high RoB**

- Use of validated food frequency questionnaires to assess amount of consumption for which details on their validation are not publicly available and could not be assessed.
- Use of non-validated tools for which caregivers were not provided with a description or examples how behaviours should be rated.

#### **Definitely high RoB**

This category was not used.

## 4. Assessment of the appropriate adjustment for confounders in observational studies for those outcomes addressed in the opinion<sup>50</sup> (confounding bias)

## **Definitely low RoB**

• Consideration of (most) of the main confounders identified for each outcome, plus consideration of other relevant confounders, including a detailed description on how confounders were assessed and subsequently selected for inclusion in the analysis.

#### **Probably low RoB**

- Consideration of some of the main confounders and some other relevant confounders.
- Lack of adjustment for confounders when the result of the analyses was not statistically significant under the assumption that adjustment for confounders would yield results even closer to the null effect.

#### **Probably high RoB**

- Lack of the majority of main confounders.
- Insufficient information for a judgement.

#### **Definitely high RoB**

• Lack of adjustment for confounders, if the results were statistically significant.

## The main confounders (selected based on expert knowledge) considered to determine the RoB were the following:

#### 4.1. Body weight

- Socioeconomic status
- Education of the caregiver.

#### 4.2. Body length/height

· Parents' height.

#### 4.3. BMI; overweight and obesity; fat, fat-free and lean mass

- Maternal BMI
- Previous measurements of related outcomes, e.g. growth rates during infancy (reverse causality).

#### 4.4. Atopic diseases

- Allergic symptoms before or at the timing of introduction of CFs (reverse causality, always), unless this item was addressed in another way (e.g. through sensitivity analysis)
- Parental history of allergy (always), unless this item was addressed in another way (i.e. children selected based on the parental history of allergy)
- Smoking (for respiratory outcomes only)
- Furry pets (for respiratory outcomes only).



#### 4.5. Autoimmune disease (coeliac disease, type 1 diabetes)

- Family history (if children were recruited from the general population)
- Gender
- Ethnicity (if children were recruited from the general population).

#### 4.6. Blood pressure

- Child's body weight/BMI
- Family history of hypertension/parents' blood pressure
- Smoking during pregnancy (not passive smoking after birth, in the same room).

#### 4.7. Infections (low income countries excluded)

- Socioeconomic status
- Education of the caregiver
- Smoking (respiratory infections only)
- Number of siblings
- Day-care attendance
- Breastfeeding vs formula feeding.

#### 4.8. Sleep-related endpoints

- Socioeconomic status
- Smoking
- Breastfeeding vs formula feeding.

#### 4.9. Infant and child development

- Socioeconomic status
- Education of the caregiver
- Gestational age.

#### 4.10. Nutrient status

- Education of the caregiver
- Gestational age
- Breastfeeding vs formula feeding.

#### 4.11. Food preferences and eating behaviours

- Socioeconomic status
- Education of the caregiver
- Caregivers' age
- Number of siblings.

#### 5. Randomisation in RCTs (selection bias)

#### **Definitely low RoB**

• Use of appropriate methods for randomisation (e.g. computer-generated random numbers).

## **Probably low RoB**

This category was not used.

#### **Probably high RoB**

• Insufficient information on randomisation (e.g. statement that subjects were randomly allocated to groups without further information).

#### **Definitely high RoB**

• Inappropriate methods for randomisation (e.g. division of subjects based on birth dates).



#### 6. Concealed allocation in RCTs (selection bias)

#### **Definitely low RoB**

• Use of appropriate methods for ensuring concealed allocation (e.g. web-based central randomisation, telephone randomisation, sealed non-transparent envelopes).

#### **Probably low RoB**

This category was not used.

#### **Probably high RoB**

Insufficient information available.

#### **Definitely high RoB**

This category was not used.

#### 7. Blinding in RCTs (performance bias)

#### **Definitely low RoB**

- Intervention and control products did not differ in appearance (including packaging), smell and taste.
- No breaking of the blinding during the study.
- Detailed explanation provided how blinding was ensured even if blinding had to be broken for a subject (based on criteria pre-defined in the study protocol).

#### **Probably low RoB**

• Blinding of outcome assessors for studies in which blinding of the exposure was not possible (e.g. timing of introduction of CFs).

#### **Probably high RoB**

• No blinding of outcome assessors in studies in which blinding of the exposure was not possible (e.g. timing of introduction of CFs).

#### **Definitely high RoB**

• No blinding in studies in which blinding of both the exposure and the outcome assessment was possible.

#### 8. Attrition/exclusion from analysis (attrition/exclusion bias)

#### **Definitely low RoB**

No attrition or exclusion from analysis.

#### **Probably low RoB**

- Comparison of characteristics of subjects that were included with those that were excluded from the analysis, and no appreciable differences were observed with respect to characteristics which could be related both to exposure and outcome.
- Limited number of subjects excluded (based on expert judgment).
- Time-to-event analyses.

## **Probably high RoB**

- No comparison of characteristics of subjects that were included with those that were excluded from the analysis presented.
- Appreciable differences in the characteristics of subjects included and excluded from analysis.

#### **Definitely high RoB**

• Substantial number of subjects excluded from analysis without any comparison of characteristics.



#### 9. Other risks of bias

In this category, the appropriateness of the statistical analysis was assessed, as was any selective reporting or any other threats to internal validity (e.g. changes in feeding recommendations during the course of the study which might have shifted the exposure category of some of the infants in the study).

- For most of the studies, this item was rated as probably low RoB.
- Definitely high RoB was used in case of unadjusted analyses with statistically significant findings owing to the inappropriate statistical analysis.



# Appendix D – Search strings of the literature searches undertaken by EFSA D.1. Original search performed by the contractor (5 and 8 May 2017)

The search strings are published in the report by the contractor (Pallas Health Research and Consultancy, 2019).

## D.2. Original complementary search (16 October 2017)

#### Cochrane

ID	Search	Items found
#1	[mh ^Infant] or infan*:ti,ab,kw or young child*:ti,ab,kw or baby:ti,ab,kw or babies:ti,ab,kw or early childhood:ti,ab,kw or weanling*:ti,ab,kw or "first year of life":ti,ab,kw or "early life":ti,ab,kw	59,821
#2	(Exclusiv*:ti,ab,kw or fully:ti,ab,kw or full:ti,ab,kw) near/5 (breastfeed*:ti,ab,kw or breast feed*:ti,ab,kw or breastfed:ti,ab,kw)	927
#3	(Exclusiv*:ti,ab,kw or fully:ti,ab,kw or full:ti,ab,kw) and [mh "breast feeding"]	564
#4	(full:ti,ab,kw or fully:ti,ab,kw or exclusiv*) and ("breast milk":ti,ab,kw or "human milk":ti,ab,kw or "maternal milk":ti,ab,kw or "mother's own milk":ti,ab,kw) and (fed:ti,ab,kw or feeding*:ti,ab,kw or diet:ti,ab,kw or intake:ti,ab,kw)	464
#5	#2 or #3 or #4	1,234
#6	(time:ti,ab,kw or timing:ti,ab,kw or moment:ti,ab,kw or duration:ti,ab,kw or age:ti,ab,kw or month:ti, ab,kw or months:ti,ab,kw or early:ti,ab,kw or week:ti,ab,kw or weeks:ti,ab,kw or year:ti,ab,kw or day:ti,ab,kw or days:ti,ab,kw or [mh "Time factors"] or [mh ^"Age Factors"])	690,281
#7	#1 and #5 and #6	1,052
#8	#7 Publication Year from 1990	1,007

#### **Pubmed**

ID	Search	Items found
#14	Search #13 AND ("1990"[Date - Publication]: "3000"[Date - Publication])	4,381
#13	Search #11 NOT #12	4,739
#12	Search (Afghanistan*[tiab] OR Benin*[tiab] OR Burkina Faso[tiab] OR Burund*[tiab] OR Central African Republic[tiab] OR Republique Centrafricaine[tiab] OR Chad*[tiab] OR Comoros[tiab] OR Congo*[tiab] OR Eritrea[tiab] OR Ethiopi*[tiab] OR Gambia[tiab] OR Guinean[tiab] OR Haliti*[tiab] OR Korea*[tiab] OR Liberia*[tiab] OR Madagascar*[tiab] OR Malawi*[tiab] OR Mali[tiab] OR Mozambiqu*[tiab] OR Nepal[tiab] OR Niger[tiab] OR Rwand*[tiab] OR Senegal*[tiab] OR "Sierra Leone"[tiab] OR Somali*[tiab] OR Sudan*[tiab] OR Tanzani*[tiab] OR Togo[tiab] OR Togolese[tiab] OR Ugand*[tiab] OR Zimbabw*[tiab] OR Armenia*[tiab] OR Banglades*[tiab] OR Bhutan[tiab] OR Bolivia[tiab] OR "Cabo Verde"[tiab] OR "Cape Verde"[tiab] OR Cambodia*[tiab] OR Cameroon*[tiab] OR Congo[tiab] OR "Cote D'Ivoire"[tiab] OR "Ivory Coast"[tiab] OR Dijbout*[tiab] OR Egypt*[tiab] OR "El Salvador"[tiab] OR Ghana*[tiab] OR Guatemala[tiab] OR Honduras[tiab] OR India*[tiab] OR Indonesia*[tiab] OR Kyrgyzstan*[tiab] OR "Kyrgyz Republic"[tiab] OR Lao*[tiab] OR Micronesi*[tiab] OR Mauritiania*[tiab] OR Mauritiania*[tiab] OR Mauritiania*[tiab] OR Mongolia* (tiab) OR Pakistan*[tiab] OR Burma[tiab] OR Myanmar[tiab] OR Nicaragua*[tiab] OR Solomon Island*[tiab] OR Pakistan*[tiab] OR Sudan*[tiab] OR Swazi*[tiab] OR Syria*[tiab] OR Samoa[tiab] OR Sri Lanka[tiab] OR Sudan*[tiab] OR Swazi*[tiab] OR Syria*[tiab] OR Tajikistan*[tiab] OR Timor-Leste[tiab] OR Tonga[tiab] OR Tunisia*[tiab] OR Uzbekistan* (tiab] OR Vanuatu*[tiab] OR Vietnam*[tiab] OR Nicaragua*[tiab] OR DR Burkina Faso[tiab] OR Comoros[tiab] OR Congo*[tiab] OR Republique Centrafricaine (tiab) OR Chad*[tiab] OR Comoros[tiab] OR Congo*[tiab] OR Republique Centrafricaine (tiab) OR Chad*[tiab] OR Comoros[tiab] OR Congo*[tiab] OR Gainéa-Bissau (tiab) OR Guinea-Bissau (tiab) OR Guinea-	519,702



ID	Search	Items found
	[tiab] OR Liberia*[tiab] OR Madagascar*[tiab] OR Malawi*[tiab] OR Mali[tiab] OR Mozambiqu*[tiab] OR Nepal[tiab] OR Niger[tiab] OR Rwand*[tiab] OR Senegal* [tiab] OR Sierra Leone"[tiab] OR Somani*[tiab] OR Sudan*[tiab] OR Tanzani*[tiab] OR Togo[tiab] OR Togolese[tiab] OR Ugand*[tiab] OR Zimbabw*[tiab] OR Armenia*[tiab] OR Banglades*[tiab] OR Bhutan[tiab] OR Bolivia[tiab] OR "Cabo Verde"[tiab] OR "Cape Verde"[tiab] OR Cambodia*[tiab] OR Cameroon*[tiab] OR Congo[tiab] OR "Cote D'Ivoire"[tiab] OR "Ivory Coast"[tiab] OR Dibiout*[tiab] OR Egypt*[tiab] OR "Cote D'Ivoire"[tiab] OR Neinya*[tiab] OR Guatemala[tiab] OR Honduras[tiab] OR India*[tiab] OR India*[tiab] OR Keny*[tiab] OR Kiribati[tiab] OR Kyrgyzstan*[tiab] OR Mauritians*[tiab] OR Mauritians*[tiab] OR Mauritians*[tiab] OR Mauritians*[tiab] OR Mauritians*[tiab] OR Mauritians*[tiab] OR Micronesi*[tiab] OR Mongoci*[tiab] OR Morocc*[tiab] OR Waynmar[tiab] OR Nicaragua*[tiab] OR Nigeria*[tiab] OR Pakistan*[tiab] OR "Papua New Guinea*[tiab] OR Philippine*[tiab] OR Samoa[tiab] OR "Soa Tomé and Principe"[tiab] OR "Sao Tomé e Principe"[tiab] OR Solomon Island*[tiab] OR Sri Lanka [tiab] OR Sudan*[tiab] OR Tunisia*[tiab] OR Vicaram*[tiab] OR	
	Search #9 NOT #10	5,787
#10		4,382, 326
#9	Search #7 NOT #8	5,800
#8	Search (Editorial[ptyp] OR Letter[ptyp])	1,403, 312
#7	Search #1 AND #5 AND #6  Search (time[tiab] OR timing[tiab] OR moment[tiab] OR duration[tiab] OR age[tiab] OR month[tiab] OR months[tiab] OR early[tiab] OR week[tiab] OR weeks[tiab] OR years[tiab] OR days[tiab] OR "Time factors"[Mesh] OR "Age Factors"[Mesh:NoExp])	5,824 8,822,572
#5	Search #2 OR #3 OR #4	8,051
#4	Search Exclusiv*[tiab] AND (breastfeed*[tiab] OR breast feed*[tiab] OR breastfed[tiab] OR "breast feed"[tiab] OR lactat*[tiab] OR "breast feeding"[Mesh])	·
#3	Search (full[tiab] OR fully[tiab] OR exclusiv*[tiab]) AND ("breast milk"[tiab] OR "human milk"[tiab] OR "maternal milk"[tiab] OR "mother's own milk"[tiab]) AND (fed[tiab] OR feeding*[tiab] OR diet[tiab] OR intake[tiab])	2,047
#2	Search "fully breastfeeding"[tiab] OR "fully breastfeeding"[tiab] OR fully breastfed*[tiab] OR fully breastfed*[tiab] OR "full breastfeeding"[tiab] OR "full breastfeeding"[tiab]	394
#1	Search "Infant"[mh:noexp] OR infan*[tiab] OR young child*[tiab] OR baby[tiab] OR babies [tiab] OR early childhood[tiab] OR weanling*[tiab] OR "first year of life"[tiab] OR "early life"[tiab]	1,031, 125



## **Web of Science. Core Collection**

ID	Search	Items found
#10	#9 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1990-2017	3,410
#9	#6 NOT #7 <b>Refined by:</b> [excluding] <b>DOCUMENT TYPES:</b> (LETTER OR EDITORIAL MATERIAL) <i>Indexes=SCI-EXPANDED, SSCI, A&amp;HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years</i>	3,425
#8	#6 NOT #7 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	3,456
#7	TS=((Afghanistan* OR Benin* OR Burkina Faso OR Burund* OR Central African Republic OR Republique Centrafricaine OR Chad* OR Comoros OR Congo* OR Eritrea OR Ethiopi* OR Gambia* OR Guinea OR Guinée OR Guinée OR Guinée Bissau OR Guinée Bissau OR Haiti* OR Korea* OR Liberia* OR Madagascar* OR Malawi* OR Mali OR Malian OR Mozambiqu* OR Nepal* OR Niger OR Rwand* OR Senegal* OR "Sierra Leone" OR Somali* OR Sudan* OR Tanzani* OR Togo OR Togolese OR Ugand* OR Zimbabw*) OR (Armenia* OR Banglades* OR Bhutan OR Bolivia OR "Cabo Verde" OR "Cape Verde" OR Cambodia* OR Cameroon* OR Congo OR "Cote D'Ivoire" OR "Ivory Coast" OR Dijbout* OR Lesotho* OR Mauritania* OR Kiribati OR Kyrgyzstan* OR "Kyrgyz Republic" OR Lao* OR Lesotho* OR Mauritania* OR Mauritius OR Mauritian* OR Micronesi* OR Mongolia* OR Morocc* OR Burma OR Nyanmar OR Nicaragua* OR Nigeria* OR Pakistan* OR "Papua New Guinea" OR Philippine* OR Samoa OR "São Tomé and Principe" OR "São Tomé e Principe" OR Solomon Island* OR Sri Lanka OR Sudan* OR Swazi* OR Syria* OR Timor-Leste OR Tonga OR Tunisia* OR Lubekistan* OR Vanuatut* OR Vietnam* OR "West Bank" OR Gaza OR Yemen* OR Zambia*) NOT ((Afghanistan* OR Benin* OR Burrika Faso OR Burund* OR Central African Republic OR Republique Centrafricaine OR Chad* OR Comoros OR Congo* OR Eritrea OR Ethiopi* OR Gambia* OR Korea* OR Liberia* OR Madagascar* OR Malawi* OR Malia OR Malian OR Mozambiqu* OR Korea* OR Liberia* OR Madagascar* OR Malawi* OR Malia OR Malian OR Mozambiqu* OR Korea* OR Liberia* OR Modagascar* OR Malawi* OR Malia OR Malian OR Mozambiqu* OR Korea* OR Liberia* OR Modagascar* OR Malawi* OR Sidnah* OR Sudan* OR Tanzani* OR Togo OR Togolese OR Ugand* OR Zimbabw*) OR (Armenia* OR Banglades* OR Bhutan OR Bolivia OR "Cabo Verde" OR "Cape Verde" OR Camboon* OR Congo OR "Cote D'Ivoire" OR "Viroy Coast" OR Dijbout* OR Camboon* OR Congo OR "Cote D'Ivoire" OR "Viroy Coast" OR Dijbout* OR Camboon* OR Congo OR "Cote D'Ivoire" OR "Viroy Coast" OR Dijbout* OR Genal* OR Edavasor OR Morocc* OR Burma OR Myanmar OR Nicaragua* OR Ni	



ID	Search	Items found
#6	#5 AND #4 AND #1 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	4,300
#5	TS=(time OR timing OR moment OR duration OR age OR month OR months OR early OR week OR weeks OR year OR years OR day OR days)  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	12,919,619
#4	#3 OR #2 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	6,170
#3	TS=((full OR fully OR exclusiv*) NEAR ("breast milk" OR "human milk" OR "maternal milk" OR breastmilk OR "mother* own milk") AND (fed OR feeding* OR diet OR intake)) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	761
#2	TS=((Exclusiv* OR fully OR full) NEAR/5 (breastfeed* OR "breast feed*" OR breastfed OR "breast fed*" OR lactat*))  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	5,815
#1	TS= (infan* OR "young child*" OR baby OR babies OR "early childhood" OR weanling* OR "first year of life" OR "early life")  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	539,234

## D.3. Update and upgrade of the literature searches (2 October 2018)

# **D.3.1.** Update and upgrade of the search performed by the contractor Cochrane Library

ID	Search	Items found
#1	[mh ^Infant] OR [mh "child, preschool"] OR infan*:ti,ab,kw OR young child*:ti,ab,kw OR baby:ti,ab,kw OR babies:ti,ab,kw OR "early childhood":ti,ab,kw OR weanling*:ti,ab,kw OR "first year of life":ti,ab,kw OR "early life":ti,ab,kw OR (("pre school":ti,ab,kw OR preschool: ti,ab,kw OR kindergar*:ti,ab,kw) AND (child*:ti,ab,kw)) OR "preschool aged":ti,ab,kw OR "preschool aged":ti,ab,kw OR "kindergarten aged":ti,ab,kw OR "kindergarten aged":ti,ab,kw	79,467
#2	[mh ^"Infant Nutritional Physiological Phenomena"] OR [mh ^"Infant Food"] OR [mh Weaning] OR diet:ti,ab,kw OR nutrition:ti,ab,kw OR food*:ti,ab,kw OR feeding:ti,ab,kw OR wean*:ti,ab,kw OR beikost:ti,ab,kw OR "partial breastfeeding":ti,ab,kw OR "partial breastfeeding":ti,ab,kw OR "non-exclusive breastfeeding":ti,ab,kw OR "mixed breastfeeding":ti,ab,kw OR "mixed breastfeeding":ti,ab,kw OR "mixed breastfeeding":ti,ab,kw OR fruit*:ti,ab,kw OR vegetable*:ti,ab,kw OR cereal*:ti,ab,kw OR wheat:ti,ab,kw OR gluten:ti,ab,kw OR egg*:ti,ab,kw OR peanut*:ti,ab,kw OR fish:ti,ab,kw OR shellfish:ti,ab,kw OR porridge:ti,ab,kw OR rice:ti,ab,kw OR meat:ti,ab,kw OR bread:ti,ab,kw OR juice:ti,ab,kw OR corn:ti,ab,kw OR spoonfed:ti,ab,kw OR meal*:ti,ab,kw OR solid*:ti,ab,kw OR "spoon-fed":ti,ab,kw OR spoonfed:ti,ab,kw OR meal*:ti,ab,kw	108,124
#3	(introduction:ti,ab,kw,kw OR introduce*:ti,ab,kw,kw OR introducing:ti,ab,kw,kw OR start:ti, ab,kw,kw OR beginning:ti,ab,kw,kw OR milestone*:ti,ab,kw,kw) NEAR (time:ti,ab,kw OR timing:ti,ab,kw OR moment:ti,ab,kw OR duration:ti,ab,kw OR age:ti,ab,kw OR month:ti,ab,kw OR months:ti,ab,kw OR early:ti,ab,kw OR week:ti,ab,kw OR weeks:ti,ab,kw OR year:ti,ab,kw OR years:ti,ab,kw OR day:ti,ab,kw OR day:ti,ab,kw)	
#4	#1 AND #2 AND #3	673

Systematic reviews (SR): 31

Clinical trials (CT), filtered from 1990: 611

642 imported into a library (1 clinical question not imported)



## **Pubmed**

ID	Search	Items found
#18	Search (#17) AND ("1990"[Date - Publication] : "3000"[Date - Publication])	8,789
#17	Search #15 NOT #16	9,807
#16	Search Editorial[ptyp] OR Letter[ptyp] OR Case Reports[ptyp] OR Clinical Conference [ptyp] OR Comment[sb] OR "pubmed books"[Filter]	3,377,353
#15	Search #13 NOT #14	10,636
#14	Search "Animals" [Mesh] NOT ("Humans" [Mesh] AND "Animals" [Mesh])	4,499,401
#13	Search #8 AND #10 AND #11 AND #12	11,246
#12	Search "Infant Nutritional Physiological Phenomena" [Mesh:NoExp] OR "Infant Food" [Mesh:NoExp] OR "Weaning" [Mesh] OR wean* [tiab] OR diet[tiab] OR nutrition* [tiab] OR food* [tiab] OR feeding [tiab] OR beikost [tiab] OR "partial breastfeeding" [tiab] OR "non-exclusive breastfeeding" [tiab] OR "non-exclusive breastfeeding" [tiab] OR "mixed breastfeeding" [tiab] OR "mixed breastfeeding" [tiab] OR fruit* [tiab] OR vegetable* [tiab] OR cereal* [tiab] OR wheat [tiab] OR gluten [tiab] OR egg* [tiab] OR peanut* [tiab] OR fish [tiab] OR shellfish [tiab] OR puree* [tiab] OR IYCF [tiab] OR solid* [tiab] OR "spoon-fed" [tiab] OR "spoonfed" [tiab] OR meal* [tiab]	1,721,416
#11	Search time[tiab] OR timing[tiab] OR moment[tiab] OR duration[tiab] OR age[tiab] OR month[tiab] OR months[tiab] OR early[tiab] OR week[tiab] OR weeks[tiab] OR years[tiab] OR days[tiab]	8,740,036
#10	Search introduction[tiab] OR introduce*[tiab] OR introducing[tiab] OR start*[tiab] OR beginning[tiab] OR milestone*[tiab]	1,296,548
#8	Search "Infant" [mh:noexp] OR "Child, Preschool" [Mesh] OR infan* [tiab] OR young child* [tiab] OR baby [tiab] OR babies [tiab] OR early childhood [tiab] OR weanling* [tiab] OR "first year of life" [tiab] OR "early life" [tiab] OR (("pre school" [tiab] OR preschool [tiab] OR kindergar* [tiab]) AND (child* [tiab])) OR "preschool aged" [tiab] OR "preschool age" [tiab] OR "preschool aged" [tiab] OR "kindergarten age" [tiab] OR "kindergarten aged" [tiab]	1,461,295

## **Web of Science. Core Collection**

ID	Search	Items found
#6	#5 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1990-2018	5,324
#5	#3 AND #2 AND #1 Refined by: DOCUMENT TYPES: (ARTICLE OR REVIEW OR REPRINT OR PROCEEDINGS PAPER OR CORRECTION OR BOOK REVIEW) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	5,329
#4	#3 AND #2 AND #1 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	5,466
#3	TS=((introduction OR introduce* OR introducing OR start OR beginning OR milestone*) NEAR (time OR timing OR moment OR duration OR age OR month OR months OR early OR week OR weeks OR year OR years OR day OR days)) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR- EXPANDED, IC Timespan=All years	489,108



ID	Search	Items found
#2	TS=(diet OR nutrition OR food* OR wean* OR feeding OR beikost OR IYCF OR "partial breastfeeding" OR "partial breastfeeding" OR "non-exclusive breastfeeding" OR "non-exclusive breastfeeding" OR "mixed breastfeeding" OR fruit* OR vegetable* OR cereal* OR wheat OR gluten OR egg* OR peanut* OR fish OR shellfish OR porridge OR rice OR meat OR bread OR juice OR corn OR puree* OR solid* OR "spoonfed" OR meal*)  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	4,066,938
#1	TS=(infan* OR "young child*" OR baby OR babies OR "early childhood" OR weanling* OR "first year of life" OR "early life" OR (("pre school" OR preschool OR kindergar*) NEAR (child* OR "age" OR "aged")))  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	626,719

## **D.3.2.** Update and upgrade of the complementary search

## **Cochrane Library**

ID	Search	Items found
#1	[mh ^Infant] OR [mh "child, preschool"] OR infan*:ti,ab,kw OR young child*:ti,ab,kw OR baby:ti,ab,kw OR babies:ti,ab,kw OR "early childhood":ti,ab,kw OR weanling*:ti,ab,kw OR "first year of life":ti,ab,kw OR "early life":ti,ab,kw OR (("pre school":ti,ab,kw OR preschool: ti,ab,kw OR kindergar*:ti,ab,kw) AND (child*:ti,ab,kw)) OR "preschool aged":ti,ab,kw OR "pre school aged":ti,ab,kw OR "kindergarten aged":ti,ab,kw OR "kindergarten aged":ti,ab,kw	79,467
#2	(Exclusiv*:ti,ab,kw or fully:ti,ab,kw or full:ti,ab,kw) near/5 (breastfeed*:ti,ab,kw or breast feed*:ti,ab,kw or breastfed:ti,ab,kw)	1,813
#3	(Exclusiv*:ti,ab,kw or fully:ti,ab,kw or full:ti,ab,kw) and [mh "breast feeding"]	609
#4	(full:ti,ab,kw or fully:ti,ab,kw or exclusiv*) and ("breast milk":ti,ab,kw or "human milk":ti, ab,kw or "maternal milk":ti,ab,kw or "mother's own milk":ti,ab,kw) and (fed:ti,ab,kw or feeding*:ti,ab,kw or diet:ti,ab,kw or intake:ti,ab,kw)	566
#5	#2 OR #3 OR #4	2,044
#6	(time:ti,ab,kw or timing:ti,ab,kw or moment:ti,ab,kw or duration:ti,ab,kw or age:ti,ab,kw or month:ti,ab,kw or months:ti,ab,kw or early:ti,ab,kw or week:ti,ab,kw or weeks:ti,ab,kw or year:ti,ab,kw or day:ti,ab,kw or days:ti,ab,kw or [mh "Time factors"] or [mh \"Age Factors"])	816,392
#7	#1 AND #5 AND #6	1,639

SR: 81

CT from 1990: 1,501 Protocols (8) not imported

#### **Pubmed**

ID	Search	Items found
#12	Search (#11) AND ("1990"[Date - Publication] : "3000"[Date - Publication])	5,708
#11	Search #9 NOT #10	6,095
#10	Search Editorial[ptyp] OR Letter[ptyp] OR Case Reports[ptyp] OR Clinical Conference [ptyp] OR Comment[sb] OR "pubmed books"[Filter]	3,377,353
#9	Search #8 NOT #7	6,363
#8	Search #1 AND #5 AND #6	6,378
#7	Search "Animals" [Mesh] NOT ("Humans" [Mesh] AND "Animals" [Mesh])	4,499,401



ID	Search	Items found
#6	Search (time[tiab] OR timing[tiab] OR moment[tiab] OR duration[tiab] OR age[tiab] OR month[tiab] OR months[tiab] OR early[tiab] OR week[tiab] OR weeks[tiab] OR years[tiab] OR years[tiab] OR days[tiab] OR days[tiab] OR "Time factors" [Mesh] OR "Age Factors" [Mesh:NoExp])	9,319,237
#5	Search #2 OR #3 OR #4	8,749
#4	Search Exclusiv*[tiab] AND (breastfeed*[tiab] OR breast feed*[tiab] OR breastfed[tiab] OR "breast feed"[tiab] OR lactat*[tiab] OR "breast feeding"[Mesh])	7,687
#3	Search (full[tiab] OR fully[tiab] OR exclusiv*[tiab]) AND ("breast milk"[tiab] OR "human milk"[tiab] OR "maternal milk"[tiab] OR "mother's own milk"[tiab]) AND (fed[tiab] OR feeding*[tiab] OR diet[tiab] OR intake[tiab])	2,171
#2	Search "fully breastfeeding"[tiab] OR "fully breastfeeding"[tiab] OR fully breastfed*[tiab] OR fully breastfeeding"[tiab] OR "full breastfeeding"[tiab]	388
#1	Search "Infant" [mh:noexp] OR "Child, Preschool" [Mesh] OR infan* [tiab] OR young child* [tiab] OR baby [tiab] OR babies [tiab] OR early childhood [tiab] OR weanling* [tiab] OR "first year of life" [tiab] OR "early life" [tiab] OR (("pre school" [tiab] OR preschool [tiab] OR kindergar* [tiab]) AND (child* [tiab])) OR "preschool aged" [tiab] OR "preschool age" [tiab] OR "pre school aged" [tiab] OR "kindergarten aged" [tiab] OR "kindergarten aged" [tiab]	1,461,295

## **Web of Science. Core Collection**

ID	Search	Items found
#13	#12 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1990-2018	5,077
#12	#10 AND #9 AND #1 Refined by: DOCUMENT TYPES: (ARTICLE OR CORRECTION OR REVIEW OR RETRACTED PUBLICATION OR PROCEEDINGS PAPER) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1975-2018	5,084
#11	#10 AND #9 AND #1 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1975-2018	5,174
#10	TS=(time OR timing OR moment OR duration OR age OR month OR months OR early OR week OR weeks OR year OR years OR day OR days)  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1975-2018	14,434,421
#9	#8 OR #7 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1975-2018	7,402
#8	TS=((full OR fully OR exclusiv*) NEAR ("breast milk" OR "human milk" OR "maternal milk" OR breastmilk OR "mother* own milk") AND (fed OR feeding* OR diet OR intake)) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1975-2018	890
#7	TS=((Exclusiv* OR fully OR full) NEAR/5 (breastfeed* OR "breast feed*" OR breastfed OR "breast fed*" OR lactat*))  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1975-2018	6,994
#6	#5 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=1990-2018	5,324



ID	Search	Items found
#5	#3 AND #2 AND #1 Refined by: DOCUMENT TYPES: (ARTICLE OR REVIEW OR REPRINT OR PROCEEDINGS PAPER OR CORRECTION OR BOOK REVIEW) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	5,329
#4	#3 AND #2 AND #1 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	5,466
#3	TS=((introduction OR introduce* OR introducing OR start OR beginning OR milestone*) NEAR (time OR timing OR moment OR duration OR age OR month OR months OR early OR week OR weeks OR year OR years OR day OR days)) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	489,108
#2	TS=(diet OR nutrition OR food* OR wean* OR feeding OR beikost OR IYCF OR "partial breastfeeding" OR "partial breastfeeding" OR "non-exclusive breastfeeding" OR "non-exclusive breastfeeding" OR "mixed breastfeeding" OR fruit* OR vegetable* OR cereal* OR wheat OR gluten OR egg* OR peanut* OR fish OR shellfish OR porridge OR rice OR meat OR bread OR juice OR corn OR puree* OR solid* OR "spoon-fed" OR meal*)  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	4,066,938
#1	TS=(infan* OR "young child*" OR baby OR babies OR "early childhood" OR weanling* OR "first year of life" OR "early life" OR (("pre school" OR preschool OR kindergar*) NEAR (child* OR "age" OR "aged")))  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	626,719

# D.4. Search strings of the extensive literature search undertaken by EFSA on motor development (developmental readiness of the infant to receive CFs)

## **Sources of information**

Source of information	Platform	Date range	Date of search
PubMed	PubMed	Inception-Present	6/2/2019
Science Citation Index Expanded (SCI-EXPANDED)	Web of Science. Core Collection	1975-present	
Social Sciences Citation Index (SSCI)		1975-present	
Arts & Humanities Citation Index (A&HCI)		1975-present	
Conference Proceedings Citation Index- Science (CPCI-S)		1990-present	
Conference Proceedings Citation Index- Social Science & Humanities (CPCI-SSH)		1990-present	
Book Citation Index- Science (BKCI-S)		2005-present	
Book Citation Index– Social Sciences & Humanities (BKCI-SSH)		2005-present	
Emerging Sources Citation Index (ESCI)		2005-present	



## **Search strings**

## **Pubmed**

ID	Search	Items found
#20	Search ((#18) NOT ("Animals"[Mesh] NOT "humans"[Mesh]))) NOT ((rat[ti] OR rats[ti] OR mouse[ti] OR mice[ti] OR murine[ti] OR rodent[ti] OR rodents[ti] OR hamster[ti] OR hamsters[ti] OR pig[ti] OR pigs[ti] OR porcine[ti] OR rabbit[ti] OR rabbits[ti] OR animals[ti] OR dogs[ti] OR dogs[ti] OR cats[ti] OR cow[ti] OR bovine[ti] OR sheep[ti] OR ovine[ti] OR monkey[ti] OR monkeys[ti] OR horses[ti]) NOT medline[sb])	1,083
#19	Search (rat[ti] OR rats[ti] OR mouse[ti] OR mice[ti] OR murine[ti] OR rodent[ti] OR rodents[ti] OR hamster[ti] OR hamsters[ti] OR pig[ti] OR pigs[ti] OR porcine[ti] OR rabbit [ti] OR rabbits[ti] OR animals[ti] OR animals[ti] OR dogs[ti] OR dogs[ti] OR cats[ti] OR cow [ti] OR bovine[ti] OR sheep[ti] OR ovine[ti] OR monkeys[ti] OR monkeys[ti] OR horses[ti] OR horses[ti]	107,607
#18	Search #16 NOT ("Animals"[Mesh] NOT "humans"[Mesh])	1,084
#17	Search "Animals" [Mesh] NOT "humans" [Mesh]	4,544,991
#16	Search #15 OR #13 OR #10 OR #8	1,119
#15	Search ((((((("Infant"[Mesh] OR infan*[tiab] OR child*[tiab] OR baby[tiab] OR babies[tiab] OR "first year of life"[tiab] OR "early life"[tiab] OR "preschool aged"[tiab] OR "preschool aged"[tiab] OR "preschool aged"[tiab] OR "kindergarten age"[tiab] OR "kindergarten aged"[tiab] OR "kindergarten aged"[tiab])) AND ("Growth and Development"[Mesh] OR "growth and development" [Subheading] OR develop*[tiab] OR grow*[tiab]))) OR "Child Development"[Mesh:NoExp])) AND (("Deglutition"[Mesh] OR deglutition*[tiab] OR swallow*[tiab]) AND ("Physiology"[Mesh] OR physiolog*[tiab])) OR "Deglutition/physiology"[Majr])	158
#14	Search (("Deglutition"[Mesh] OR deglutition*[tiab] OR swallow*[tiab]) AND ("Physiology"[Mesh] OR physiolog*[tiab])) OR "Deglutition/physiology"[Majr]	3,831
#13	Search ((((((("Infant"[Mesh] OR infan*[tiab] OR child*[tiab] OR baby[tiab] OR babies [tiab] OR "first year of life"[tiab] OR "early life"[tiab] OR "preschool aged"[tiab] OR "preschool aged"[tiab] OR "preschool aged"[tiab] OR "kindergarten aged"[tiab] OR "kindergarten aged"[tiab])) AND ("Growth and Development"[Mesh] OR "growth and development" [Subheading] OR develop*[tiab] OR grow*[tiab]))) OR "Child Development"[Mesh:NoExp])) AND ("Head Movements"[Mesh] OR ((head[tiab] OR heads[tiab]) AND (Hold*[tiab] OR held[tiab] OR movement*[tiab])) OR ((head[ti] OR heads[ti]) AND control*[ti]) OR head control*[tiab] OR "Postural Balance"[Mesh] OR postural balance*[tiab] OR postural equilibr*[tiab] OR body equilibr* [tiab] OR body balance[tiab])) AND ("Motor Skills"[Mesh] OR "Motor Activity"[Mesh:noexp] OR "Psychomotor Performance"[Mesh:NoExp] OR motor skill*[tiab] OR motor milestone*[tiab] OR motor activit*[tiab] OR motor performance*[tiab] OR neurodevelopmental milestone*[tiab] OR neurodevelopmental activit*[tiab] OR neurodevelopmental performance*[tiab] OR neurodevelopmental function*[tiab] OR psychomotor skill*[tiab] OR psychomotor skill*[tiab] OR psychomotor performance*[tiab] OR psychomotor activit*[tiab] OR psychomotor performance*[tiab] OR psychomotor function*[tiab] OR psychomotor activit*[tiab]	513
#12	Search "Motor Skills" [Mesh] OR "Motor Activity" [Mesh:noexp] OR "Psychomotor Performance" [Mesh:NoExp] OR motor skill* [tiab] OR motor milestone* [tiab] OR motor activit* [tiab] OR motor performance* [tiab] OR motor function* [tiab] OR neurodevelopmental skill* [tiab] OR motor abilit* [tiab] OR neurodevelopmental milestone* [tiab] OR neurodevelopmental activit* [tiab] OR neurodevelopmental performance* [tiab] OR neurodevelopmental function* [tiab] OR psychomotor skill* [tiab] OR psychomotor milestone* [tiab] OR psychomotor activit* [tiab] OR psychomotor performance* [tiab] OR psychomotor function* [tiab] OR psychomotor abilit* [tiab]	206,728
#11	Search "Head Movements" [Mesh] OR ((head[tiab] OR heads[tiab]) AND (Hold*[tiab] OR held[tiab] OR movement*[tiab])) OR ((head[ti] OR heads[ti]) AND control*[ti]) OR head control*[tiab] OR "Postural Balance" [Mesh] OR postural balance*[tiab] OR postural equilibr*[tiab] OR body equilibr*[tiab] OR body balance[tiab]	43,898



ID	Search	Items found
#10	Search (("Infant"[Mesh] OR infan*[tiab] OR child*[tiab] OR baby[tiab] OR babies[tiab] OR "first year of life"[tiab] OR "early life"[tiab] OR "preschool aged"[tiab] OR "preschool age"[tiab] OR "pre school age"[tiab] OR "kindergarten age"[tiab] OR "kindergarten aged"[tiab]) AND ("Gagging"[Mesh] OR ((extrusion[tiab] OR gag[tiab] OR gagging[tiab] OR tongue*[tiab] OR "Tongue"[Mesh] OR oralpharyn*[tiab]) AND (reflex*[tiab] OR "Reflex"[Mesh] OR "push out"[tiab] OR pushing[tiab])) OR (oral* [ti] AND reflex*[ti]) OR oral reflex*[tiab] OR tongue thrust*[tiab] OR tongue push*[tiab])	325
#9	Search "Gagging" [Mesh] OR ((extrusion[tiab] OR gagg[tiab] OR gagging[tiab] OR tongue* [tiab] OR "Tongue" [Mesh] OR oralpharyn* [tiab]) AND (reflex* [tiab] OR "Reflex" [Mesh] OR "push out" [tiab] OR pushing [tiab])) OR (oral* [ti] AND reflex* [ti]) OR oral reflex* [tiab] OR tongue thrust* [tiab] OR tongue push* [tiab]	2,095
#8	Search ((((((("Infant"[Mesh] OR infan*[tiab] OR child*[tiab] OR baby[tiab] OR babies [tiab] OR "first year of life"[tiab] OR "early life"[tiab] OR "preschool aged"[tiab] OR "preschool aged"[tiab] OR "preschool aged"[tiab] OR "kindergarten aged"[tiab] OR "kindergarten aged"[tiab])) AND ("Growth and Development"[Mesh] OR "growth and development" [Subheading] OR develop*[tiab] OR grow*[tiab]))) OR "Child Development"[Mesh:NoExp])) AND (("Deglutition"[Mesh] OR deglutition*[tiab] OR swallow*[tiab]))) AND (("Feeding Behavior"[Mesh:noexp] OR ((feed*[tiab] OR eat*[tiab] OR alimentar*[tiab]) AND (behav*[tiab] OR skill*[tiab]))))	189
#7	Search ("Feeding Behavior"[Mesh:noexp] OR ((feed*[tiab] OR eat*[tiab] OR alimentar* [tiab]) AND (behav*[tiab] OR skill*[tiab])))	136,822
#6	Search ("Deglutition"[Mesh] OR deglutition*[tiab] OR swallow*[tiab])	31,928
#5	Search (((("Infant"[Mesh] OR infan*[tiab] OR child*[tiab] OR baby[tiab] OR babies[tiab] OR "first year of life"[tiab] OR "early life"[tiab] OR "preschool aged"[tiab] OR "preschool age"[tiab] OR "pre school age"[tiab] OR "kindergarten age"[tiab] OR "kindergarten aged"[tiab]) AND ("Growth and Development"[Mesh] OR "growth and development" [Subheading] OR develop*[tiab] OR grow*[tiab]))) OR "Child Development"[Mesh:NoExp]	607,960
#4	Search "Child Development"[Mesh:NoExp]	42,995
#3	Search (("Infant"[Mesh] OR infan*[tiab] OR child*[tiab] OR baby[tiab] OR babies[tiab] OR "first year of life"[tiab] OR "early life"[tiab] OR "preschool aged"[tiab] OR "preschool age"[tiab] OR "pre school age"[tiab] OR "kindergarten age"[tiab] OR "kindergarten aged"[tiab] OR "kindergarten aged"[tiab] OR "kindergarten aged"[tiab] OR "growth and development"[Mesh] OR "growth and development" [Subheading] OR develop*[tiab] OR grow*[tiab])	602,540
#2	Search "Growth and Development" [Mesh] OR "growth and development" [Subheading] OR develop*[tiab] OR grow*[tiab]	6,122,998
#1	Search "Infant" [Mesh] OR infan*[tiab] OR child*[tiab] OR baby[tiab] OR babies[tiab] OR "first year of life" [tiab] OR "early life" [tiab] OR "preschool aged" [tiab] OR "preschool age" [tiab] OR "pre school aged" [tiab] OR "kindergarten aged" [tiab] OR "kindergarten aged" [tiab] OR "kindergarten aged" [tiab]	2,130,451

## **Web of Science. Core Collection**

ID	Search	Items found
#15	#13 NOT #14	640
#14		
#13	#12 OR #10 OR #7 OR #5 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	653



ID	Search	Items found
#12	#11 AND #2 AND #1 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	84
#11	TS=((deglutition* OR swallow*) AND physiolog*) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	1,720
#10	#9 AND #8 AND #2 AND #1 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	
#9	TS=((motor OR neurodevelopmental OR psychomotor) NEAR (skill* OR milestone* OR activit* OR performance* OR ability* OR function*))  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	136,076
#8	TS=((("head" OR heads) NEAR (hold* OR held OR control* OR movement*)) OR ((postural OR body) NEAR (balance* OR equilibr*)))  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	51,476
#7	#6 AND #1 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	190
#6	TS=(((extrusion OR gag OR "gagging" OR tongue* OR oral OR oralpharyn*) NEAR (reflex* OR "push out" OR "pushing")) OR "tongue thrust*" OR "tongue push*")  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	
#5	#4 AND #3 AND #2 AND #1 Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	168
#4	TS=((feed* OR eat* OR alimentar*) AND (behav* OR skill*)) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	181,405
#3	TS=(Deglutition* OR swallow*) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	32,197
#2	TS=(develop* OR grow*) Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	10,703,331
#1	TS=(infan* OR child* OR baby OR babies OR "first year of life" OR "early life" OR (("pre school" OR preschool OR kindergar*) NEAR ("age" OR "aged")))  Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC Timespan=All years	2,045,346



## Annex A – Outcome of the data extraction from the included prospective and retrospective studies

Description: The annex is an Microsoft Excel $^{\otimes}$  file that provides the full details of the data extracted from the included papers on prospective (intervention or observational) studies (Table A.1) and retrospective studies (Table A.2). The methodology applied for the data extraction is described in Section 2.2.3 and the assessment of the extracted data is provided in Sections 4–18 and related Appendices.

# Annex B – Result of the assessment of the risk of bias per question and outcome for randomised controlled trials and prospective observational studies

Description: The annex is an Microsoft Excel<sup>®</sup> file that provides the results of the assessment of the internal validity undertaken per question/item considered and outcome. The methodology applied is described in Section 2.2.2. The colour code used in the Annex is as follows: dark green for definitely low RoB, light green for probably low RoB, light red for probably high RoB and dark red for definitely high RoB.

## Annex C – List of papers excluded at full-text screening (step 2) of the searches

Description: The annex is an Microsoft Excel<sup>®</sup> file that comprises the list of papers excluded at the second step of the full-text screening (Section 2.2.1), either in full or for some outcomes only. It also includes publications from cohorts for which for the same endpoint and for the same outcome assessment another publication had already been considered in the review (Section 2.1.1.2). It shows the name of first author, the country, the study design, the outcome and the reasons for exclusion.

## Annex D – Funnel plots for the assessment of publication bias

Description: The annex is a PDF file that provides the funnel plots that were used in the assessment of publication bias (Section 2.2.3.2).

# Annex E – Sensitivity analyses on the use of different between-study variance estimators in the random effects meta-analyses

Description: The annex is a PDF file that provides the result of a sensitivity analysis per outcome, study design and Tier of RoB, showing the confidence intervals calculated based on the DerSimonian and Laird approach or based on the Paule and Mandel approach, with or without the Hartung and Knapp modification, as described in Section 2.2.3.2.