Country	Population Group	Sweeteners	Food		Chemical I	Data	Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
China	Female college	□Ace-K	Quantitative	⊠MPL	□Yes	□Yes	⊠Deterministic
Liu et al., 2012 [20]	students, 18–25	□Aspartame	FFQ	□Reported Use	⊠No	⊠No	⊠Simple Distribution
	years ( <i>n</i> = 2044)	⊠Cyclamate		Level			$\Box$ Probabilistic
	Cohort of female	⊠Saccharin		⊠Analytical			
	college students	□Steviol		Data ( <i>n</i> = 252)			2 models:
	attending 10	□Sucralose					(A) Point estimate: average
	different schools in	$\Box$ Thaumatin		Analytical			population intake + average
	the Guangdong			measurement in			sweetener concentration
	province			preserved fruits			(B) Simple distribution:
				( <i>n</i> = 252) and			Individual consumption data +
				MPL			MPL
China	All ages, ≥2 years; 2	□Ace-K	3*24-hour	$\boxtimes$ MPL <sup>1</sup>	□Yes	□Yes	Deterministic
Cao <i>et al.,</i> 2016	to 3 years; 4–9	$\Box$ Aspartame	recalls, FFQ (1-	□Reported Use	⊠No	⊠No	$\boxtimes$ Simple Distribution
[21]	years; 10–17 years;	⊠Cyclamate	year) and/or	Level			$\Box$ Probabilistic
	18–59 years; >60	$\Box$ Saccharin	weighed	$\Box$ Analytical			
	years ( $n = NR$ )	□Steviol	record	Data			Individual consumption data +
	Participants of	□Sucralose	included as				MPL <sup>1</sup>
	China Nutrition	$\Box$ Thaumatin	part of China	GB 2760-2014 -			
	and Health Survey		Nutrition and	National Health			
	(2002)		Health Survey	and Family			
			(2002)	Planning			
				Commission of			

Table S1. Methodologies Utilized for Intake Assessments Conducted for Low-/No-Calorie Sweeteners in Asia.	

Country	Population Group	Sweeteners	Food	Chemical Data			Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
				the PRC, 2014			
				[40]			
India	Cohort of assumed	⊠Ace-K	Semi-	⊠MPL (PFA,	□Yes	□Yes	Deterministic
Singhal and	heavy consumers -	⊠Aspartame	quantitative	2006) [41]	⊠No	⊠No	$\boxtimes$ Simple Distribution
Mathur, 2008 [22]	diabetics $(n = 72)$ ,	$\Box$ Cyclamate	FFQ	⊠Reported Use			$\Box$ Probabilistic
	OW individuals (n	⊠Saccharin		Level (table-top			
	= 39), and female	□Steviol		sweeteners			Individual consumption data +
	college students	⊠Sucralose		only)			MPL/industry use level
	(from 3 colleges; <i>n</i> =	$\Box$ Thaumatin		$\Box$ Analytical			
	47) <sup>2</sup> ; Age range NR			Data			
Japan	Participants of	⊠Ace-K	Semi-weighed	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
Sadamasu <i>et al.,</i>	Tokyo	⊠Aspartame	household	□Reported Use	⊠No	⊠No	$\Box$ Simple distribution
2009 [23]	Metropolitan	$\Box$ Cyclamate	dietary record	Level			$\Box$ Probabilistic
	Health and	⊠Saccharin	(24 hours)	⊠Analytical			
	Nutrition Survey	□Steviol		Data			Average population
	(2004) (age range <sup>3</sup>	□Sucralose					consumption data + analytical
	and sample size	$\Box$ Thaumatin					data
	NR)						
Japan	Children, aged 1–6	⊠Ace-K	Semi-weighed	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
MHLW, 2010 [24]	years ( <i>n</i> = 2,123)	□Aspartame	household	$\Box$ Reported Use	⊠No	⊠No	$\Box$ Simple distribution
	Participants of	□Cyclamate	dietary record	Level			$\Box$ Probabilistic
	National Nurtition	⊠Saccharin	(24 hours)	⊠Analytical			
	Survey (2001–2002)	□Steviol		Data			Market basket survey: average
	and National	□Sucralose		Average			consumption data + analytical
	Health and	□Thaumatin		measurement			concentration

Country	Population Group	Sweeteners	Food		Chemical I	Data	Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
	Nutrition Survey			Obtained from 6			
	(2003)			government- or			
				national-owned			
				research			
				insitutes			
Japan	Adults, $\geq 20$ years ( <i>n</i>	⊠Ace-K	Semi-weighed	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
Kawaski <i>et al.,</i>	= 28,062)	⊠Aspartame	household	$\Box$ Reported Use	⊠No	⊠No	$\Box$ Simple distribution
2011 [25]	Participants of	□Cyclamate	dietary record	Level			$\Box$ Probabilistic
	National Nurtition	⊠Saccharin	(24 hours)	$\boxtimes$ Analytical			
	Survey (2001–2002)	□Steviol		Data			Market basket survey:
	and National	⊠Sucralose		Average			average consumption data +
	Health and	$\Box$ Thaumatin		measurement			mean analytical concentration
	Nutrition Survey			obtained from 6			(with/without positive samples
	(2003)			government- or			
				national-owned			
				research			
				insitutes			
Japan	Adults, $\geq 20$ years ( <i>n</i>	⊠Ace-K	Semi-weighed	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
MHLW, 2011 [26]	= 21,890)	$\Box$ Aspartame	household	$\Box$ Reported Use	⊠No	⊠No	$\Box$ Simple distribution
	Participants of	□Cyclamate	dietary record	Level			$\Box$ Probabilistic
	National Health	⊠Saccharin	(24 hours)	⊠Analytical			
	and Nutrition	$\Box$ Steviol		Data			Market basket survey: average
	Survey (2004–2006)	□Sucralose		Average			consumption data + analytical
		□Thaumatin		measurement			concentration
				obtained from 6			

Country	Population Group	Sweeteners	Food		Chemical I	Data	Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
				government- or			
				national-owned			
				research			
				insitutes			
Japan	Ages 1-6 years; 7-14	⊠Ace-K	3-day food	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
MHLW, 2012 [27]	years; 15-19 years;	⊠Aspartame	diary	$\Box$ Reported Use	⊠No	⊠No	$\Box$ Simple distribution
	≥20 years; All ages	$\Box$ Cyclamate	(repeated 4	Level			$\Box$ Probabilistic
	$\geq 1$ years ( $n = 4510$ )	⊠Saccharin	times per year)	$\boxtimes$ Analytical			
	Participants of	⊠Steviol		data			Market basket survey: average
	Special Survey of	⊠Sucralose		Average			consumption data + mean
	the Frequency and	$\Box$ Thaumatin		measurement			analytical concentration
	Intake of Food			obtained from 6			
	Consumption			government- or			
	(2010)			national-owned			
				research			
				insitutes			
Japan	Total population	⊠Ace-K	NA	NA	□Yes	□Yes	⊠Deterministic
Sato et al., 2013		⊠Aspartame			⊠No	⊠No	$\Box$ Simple distribution
[28]		$\Box$ Cyclamate					$\Box$ Probabilistic
		⊠Saccharin					
		□Steviol					Disappearance data: estimated
		⊠Sucralose					annual shipment volume (2010
		$\Box$ Thaumatin					2011) × 0.8 (loss during
							storage/transportation/use)/

Country	Population Group	Sweeteners	Food		Chemical I	Data	Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
							12,800,000 people (the Japanese
Japan	Children 1-6 years	⊠Ace-K	3-day food	$\Box$ MPL	□Yes	□Yes	population in 2010)/365 days ⊠Deterministic
Kumai <i>et al.,</i> 2015	(n = 227)	$\Box$ Ace-K $\Box$ Aspartame	diary	$\Box$ Reported Use	⊡ Tes ⊠No	⊠No	$\Box$ Simple distribution
[29]; MHLW, 2015	(n - 227) Participants of	$\Box$ Cyclamate	(repeated 4	Level			
[30]	Special Survey of		times per year)	$\boxtimes$ Analytical			
[50]	the Frequency and		times per year)	data			Market basket survey: average
	Intake of Food	$\boxtimes$ Sucralose		Average			consumption data + mean
	Consumption			measurement			analytical concentration
	(2010)			obtained from 6			analy itea concentration
	(2010)			government- or			
				national-owned			
				research			
				insitutes			
Japan	Ages 1-6 years; 7-14	⊠Ace-K	3-day food	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
MHLW, 2016 [31]	years; 15-19 years;	⊠Aspartame	diary	□Reported Use	⊠No	⊠No	$\Box$ Simple distribution
	≥20 years; All ages	□Cyclamate	(repeated 4	Level			□ Probabilistic
	≥1 years ( $n = 4,510$ )	⊠Saccharin	times per year)	⊠Analytical			
	Participants of	⊠Steviol	1 ,	data			Market basket survey: average
	Special Survey of	⊠Sucralose		Average			consumption data + mean
	the Frequency and	□Thaumatin		measurement			analytical concentration
	Intake of Food			obtained from 6			-
	Consumption			government- or			
	(2010)			national-owned			

Country	Population Group	Sweeteners	Food		Chemical I	Data	Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
				research			
				insitutes			
Korea	All ages (age range	⊠Ace-K	24-hour recall	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
Choi <i>et al.,</i> 2011	and sample size	⊠Aspartame		$\Box$ Reported Use	⊠No	⊠No	$\Box$ Simple Distribution
[32]	NR)	$\Box$ Cyclamate		Level			$\Box$ Probabilistic
	Participants of	⊠Saccharin		$\boxtimes$ Analytical			
	KNHANES (2005)	□Steviol		data ( <i>n</i> = 584)			Food consumption + mean
		⊠Sucralose					sweetener concentration
		$\Box$ Thaumatin		Collected from			
				department			
				stores,			
				spermarkets,			
				and convenience			
				stores			
Korea	Children and	⊠Ace-K	2×24-hour	$\Box$ MPL	□Yes	□Yes	□Deterministic
Lee <i>et al.,</i> 2011	adolescents ( $n =$	⊠Aspartame	recall	□Reported Use	⊠No	⊠No	⊠Simple Distribution
[33]	6625); 0–6 years; 7–	□Cyclamate		Level			$\Box$ Probabilistic
	12 years; 13–19	⊠Saccharin		$\boxtimes$ Analytical			
	years	□Steviol		data (n = 92)			Individual consumption data +
	Participants of a	⊠Sucralose					mean sweetener concentration
	national dietary	$\Box$ Thaumatin		Snacks targeted			
	survey, Dietary			at children			
	Intake Survey of						
	Infant, Children						

Country	Population Group	Sweeteners	Food		Chemical I	Data	Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
	and Adolescents (2007–2009)						
Korea	Total population	⊠Ace-K	Budget	$\boxtimes$ MPL <sup>4</sup>	□Yes	□Yes	⊠Deterministic
Ha <i>et al.,</i> 2013a		□Aspartame	method	□Reported Use	⊠No	⊠No	$\Box$ Simple Distribution
[34]		□Cyclamate □Saccharin		Level □Analytical			□Probabilistic
				data			Budget method
	All ages, 1 to >65	⊠Sucralose	24-hour recall	□MPL	□Yes	□Yes	
	years $(n = 8081)$	□Thaumatin		□Reported Use	⊠No	⊠No	Simple Distribution
	Participants of			Level			$\Box$ Probabilistic
	KNHANES who			⊠Analytical			
	consumed intense			data Analytical			2 scenarios:
	sweeteners during			data ( $n = 605$ )			(A) Individual consumption
	the 24-hour recall						data + mean sweetener
	(2009)			Collected from			concentration (all samples)
				Korean grocery			(B) Individual consumption data
				stores and markets			+ mean sweetener concentration for positive samples
Korea	All ages, 1 to >65	□Ace-K	24-hour recall	$\square$ MPL	□Yes	□Yes	
Ha <i>et al.</i> , 2013b	years $(n = 8,081)$	$\boxtimes$ Aspartame	21 nour recuir	$\Box$ Reported Use	⊠No	⊠No	Simple Distribution
[35]	Participants of			Level			$\Box$ Probabilistic
r 1	KNHANES who	$\boxtimes$ Saccharin		⊠Analytical			
	consumed intense	⊠Stevioside		data ( $n = 541$ )			2 scenarios:
	sweeteners during	□Sucralose □Thaumatin		· · · ·			

Country	Population Group	Sweeteners	Food		Chemical I	Data	Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
	the 24-hour recall			Collected from	Data	Data	(A) Individual consumption
	(2009)			Korean grocery			data + mean sweetener
	(2007)			stores and			concentration (all samples)
				markets based			(B) Individual consumption data
				on permitted			+ mean sweetener concentration
				use of			for positive samples
				sweeteners and			r
				consumption in			
				KNHANES 2009			
Korea	All ages (sample	□Ace-K	24-hour recall	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
Suh and Choi,	size NR); 1–2 years;	□Aspartame		□Reported Use	⊠No	⊠No	$\Box$ Simple Distribution
2013 [36]	3–6 years; 7–12	□Cyclamate		Level			$\Box$ Probabilistic
	years; 13–19 years;	⊠Saccharin		⊠Analytical			
	20–29 years; 30–39	□Steviol		data (n=339 for			Summary statistics + mean
	years; 40–49 years;	⊠Sucralose		saccharin and			sweetener concentration
	50–64 years; >65	$\Box$ Thaumatin		590 for			
	years			sucralose)			
	Participants of						
	KNHANES (2010)			Domestic and			
				imported			
				products			
Korea	Children and	⊠Ace-K	24-hour recall	$\Box$ MPL	□Yes	□Yes	
Kim <i>et al.</i> , 2014	adolescents, aged 1-	⊠Aspartame		□Reported Use	⊠No	⊠No	$\boxtimes$ Simple Distribution
[37]	19 years ( <i>n</i> = 6082)	□Cyclamate □Saccharin		Level			⊠Probabilistic

Country	Population Group	Sweeteners	Food		Chemical I	Data	Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
	Participants of	□Steviol		⊠Analytical			2 scenarios:
	KNHANES (2007–	⊠Sucralose		data ( <i>n</i> = 738)			(A) Individual consumptior
	2009)	$\Box$ Thaumatin					data + mean sweetener
				Non-alcoholic			concentration
				beverages only			(B) Individual consumption
							data + range of sweetene
							concentrations
Korea	All ages (sample	⊠Ace-K	24-hour recall	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
Suh <i>et al.,</i> 2014	size NR); 1–2 years;	⊠Aspartame		□Reported Use	⊠No	⊠No	$\Box$ Simple Distribution
[38]	3–6 years; 7–12	$\Box$ Cyclamate		Level			$\Box$ Probabilistic
	years; 13–19 years;	□Saccharin		⊠Analytical			
	20–29 years; 30–39	□Steviol		data ( <i>n</i> = 247 for			Summary statistics + mean
	years; 40–49 years;	□Sucralose		aspartame and			sweetener concentration
	50–64 years; >65	$\Box$ Thaumatin		305 for ace-K)			
	years						
	Participants of			Domestic and			
	KNHANES (2010)			imported products			
Korea	All ages ( <i>n</i> = 34,706)	⊠Ace-K	24-hour recall	$\Box$ MPL	□Yes	□Yes	$\Box$ Deterministic
Lee <i>et al.,</i> 2017	Participants of	⊠Aspartame		$\Box$ Reported Use	⊠No	⊠No	⊠Simple Distribution
[39]	KNHANES (2010–	□Cyclamate		Level			□Probabilistic
	2014)	⊠Saccharin		⊠Analytical			
		□Steviol		data ( <i>n</i> = >900)			Individual consumption data
		⊠Sucralose					Mean sweetener concentration
		$\Box$ Thaumatin		Domestic and			of positive samples

Country	Population Group	Sweeteners	Food		Chemical I	Data	Assessment Model(s)
Reference	Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
				imported products			
Korea	All ages; <2 years;	⊠Ace-K	24-hour recall	$\Box$ MPL	□Yes	□Yes	Deterministic
	3–6 years; 7–12	⊠Aspartame		$\Box$ Reported Use	⊠No	⊠No	$\boxtimes$ Simple Distribution
Kim <i>et al.,</i> 2017	years; 13–19 years;	□Cyclamate		Level			$\Box$ Probabilistic
[42]	20–64 years; >65	⊠Saccharin		$\boxtimes$ Analytical			
	years ( <i>n</i> = 20,788)	□Steviol		data ( <i>n</i> = >900)			Individual consumption data +
		⊠Sucralose					mean sweetener concentration
	Participants of	□Thaumatin		Lee et al., 2017			of positive samples
	KNHANES (2010– 2013)			[39]			
	Total population	□Ace-K	NA	NA	□Yes	□Yes	⊠Deterministic
		□Aspartame			⊠No	⊠No	$\Box$ Simple Distribution
		□Cyclamate					$\Box$ Probabilistic
		□Saccharin					
		⊠Steviol					Poundage data: Total
		□Sucralose					production, import, and export
		⊠Thaumatin					of food products and food
							additives

Ace-K = acesulfame-K; FFQ = food frequency questionnaire; KNHANES = Korea National Health and Nutrition Examination Survey; MPL = maximum permitted level; n = sample size; NA = not Applicable; NR = not reported; OW = overweight; PRC = People's Republic of China. <sup>1</sup>Value reported as maximum residue limit (MRL) in the publication; however, the MPL is the standard terminology for food additives, and used herein. <sup>2</sup> Number of individuals (n) listed includes only 'regular consumers' of artificial sweeteners (defined as individuals consuming artificial sweeteners ≥1 time a week); intakes by 'occasional consumers' (defined as individuals consuming once a fortnight or less) were not examined. <sup>3</sup> Study does not specifically state the age group investigated; however intakes were expressed for a 50 kg individual, which aligns with the default value for adults utilized for other Japanese studies. <sup>4</sup>The second highest MPL was selected for solid foods as highest MPL was established for 'sugar'.

Country	Population	Sweeteners	Food		Chemical D	Data	Assessment Model(s)
	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
Australia and	Australian	□Ace-K	24-hour recall	⊠MPL+	□Yes	⊠Yes	□Deterministic
New Zealand	children, 2–16	□Aspartame		proposed	⊠No	□No	⊠Simple Distribution
	years ( <i>n</i> = 4487)	$\Box$ Cyclamate		amendments <sup>2</sup>			$\Box$ Probabilistic
FSANZ, 2010,	Participants of	□Saccharin		□Reported Use		Assumed 30%	
2011a,b [43–45]	ANNPAS (2007)	⊠Steviol		Level		market uptake	3 scenarios:
		□Sucralose		$\Box$ Analytical data		(30% of the	(A) Individual consumption
	General	$\Box$ Thaumatin				MPL)	data + MPL + 30% market share
	Australian						for all food categories
	population, ≥17						(B) Individual consumption data
	years ( $n = NR$ )						+ MPL + 30% market share for
	Participants of						all food categories except for
	ANNS (1995)						water based flavoured drinks (C) Individual consumption
	New Zealand						data + MPL + 30% market share
	children, 5–14						for all food categories except for
	years ( <i>n</i> = 3275)						flavoured milk products
	Participtans of						(including yoghurt)
	NZNNS (2002)						
	General New						
	Zealand						
	population, ≥15						
	years ( <i>n</i> = 4636)						

Table S2. Methodologies Utilized for Intake Assessments Conducted for Low-/No-Calorie Sweeteners in Australia/New Zealand.

Country	Population	Sweeteners	Food		Chemical D	Assessment Model(s)	
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	Participants of						
	NZNNS (1997)						
Australia and	Australian	⊠Ace-K	24-hour recall	$\boxtimes$ MPL +	□Yes	□Yes	Deterministic
New Zealand	children, 2–6	$\Box$ Aspartame		proposed	⊠No	⊠No	$\boxtimes$ Simple Distribution
	years ( <i>n</i> = 779)	$\Box$ Cyclamate		amendments <sup>3</sup>			$\Box$ Probabilistic
FSANZ, 2015a,b,c	and 7–11 years	$\Box$ Saccharin		$\Box$ Reported Use			
[46-48]	(n = 802);	□Steviol		Level			2 scenarios:
	general	□Sucralose		$\Box$ Analytical data			(A) Individual consumption
	Australian	□Thaumatin					data + MPL for chewing gum
	population, $\geq 2$						only
	years ( $n =$						(B) Combined estimated
	12,153) and ≥12						dietary exposure from chewing
	years ( $n =$						gum and 2004 sweetener surve
	10,572)						
	Participants of						
	ANNPAS						
	(2011–2012)						
	New Zealand						
	children, 5–14						
	years ( <i>n</i> = 3275)						
	Participants of						
	NZNNS (2002)						

Country	Population	Sweeteners Investigated	Food Consumption Data		Chemical D	Assessment Model(s)	
Reference	Group Examined ( <i>n</i> )			Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	General New						
	Zealand						
	population, ≥15						
	years ( <i>n</i> = 4721)						
	Participants of						
	NZANS (2008–						
	2009)						

Ace-k = acesulfame-k; ANNS = Australian National Nutrition Survey; ANNPAS = Australian National Nutrition and Physical Activity Survey; MPL = maximum permitted level; *n* = sample size; NZANS = New Zealand Adult Nutrition Survey; NZNNS = New Zealand National Children's Nutrition Survey. <sup>1</sup> Existing MPLs are specified in Schedule 15 of the Food Standards Code. <sup>2</sup> Amendments proposed by applicant: ice cream and edible ices 64 mg/kg; water based flavored drinks 160 mg/kg; formulated beverages 160 mg/kg, soy beverage, unflavored 65 mg/kg; soy beverage, flavored 175 mg/kg. <sup>3</sup> Amendments proposed by applicant: intensely sweetened chewing gum 5000 mg/kg.

Country	Population	Sweeteners	Food		Chemical D	Data	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
Portugal	Adolescents, 13-	⊠Ace-K	Annual intake	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
Lino <i>et al.,</i> 2008	15 years ( <i>n</i> = 65).	⊠Aspartame	of soft drinks	□Reported Use	⊠No	⊠No	$\Box$ Simple Distribution
[54]	Cohort of	□Cyclamate	and nectars	Level			$\Box$ Probabilistic
	students	□Saccharin	(2006) per	⊠Analytical Data			
	attending a	□Steviol	Portuguese	(n = 48,  samples)			Daily intake + Mean
	public high	□Sucralose	inhabitant	collected in school			concentration / Default body
	school in	$\Box$ Thaumatin		canteen and			weight
	Coimbra (2006–			supermarkets in			
	2007) and			2006–2007)			
	total population						
Denmark	Total population	⊠Ace-K	Information on	□MPL	□Yes	□Yes	□Deterministic
Leth <i>et al.,</i> 2008	1–80 years ( <i>n</i> =	⊠Aspartame	consumption of	□Reported Use	⊠No	⊠No	$\boxtimes$ Simple Distribution
[53]	3,098); young	⊠Cyclamate	non-alcoholic	Level			$\Box$ Probabilistic
	children 1–3	⊠Saccharin	beverages	⊠Analytical Data			
	years ( <i>n</i> = 278);	□Steviol	collected via 7-	(n = 177,			2 scenarios:
	children 4–6	□Sucralose	day food diary	collected by the			(A) Individual consumption
	years ( <i>n</i> = 366);	$\Box$ Thaumatin		Danish Veterinary			data + mean concentration of
	children 7–10			and Food			positive samples
	years ( <i>n</i> = 376)			Administration,			(B) Individual consumption data
				2005-2006)			+ mean concentration of all
							samples

Country	Population	Sweeteners	Food	Chemical Data			Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	Participants of Danish Dietary Survey (1995)			_			
Norway Husøy <i>et al.,</i> 2008 [52]	Participants from 4 national dietary surveys	⊠Ace-K ⊠Aspartame ⊠Cyclamate	Information on consumption of beverages and	□MPL ⊠Reported Use Level	□Yes ⊠No	⊠Yes □No	□Deterministic ⊠Simple Distribution □Probabilistic
	Young children, aged 1 year and 2 years from	⊠Saccharin □Steviol □Sucralose	foods <sup>2</sup> from: Semi- quantitative	⊠Analytical Data Industry use		For beverages, chemical concentration	Individual consumption data + average weighted concentration
	Spedkost ( <i>n</i> = 1204) and Småbarnskost ( <i>n</i>	□Thaumatin	FFQ (1–2 year olds); 4-day food diary (4-,9-,	levels collected by the Norwegian food safety		weighted according to content and	0 0
	= 1720), repsectively;		13-year olds); FFQ (16–79	authority (2004)(beverages);		sales volumes provided by	
	Children, 4-, 9-, and 13 years ( <i>n</i> = 2215) from		years); FFQ (16– 80 years)	Analytical data collected by Bergsten, 1998		food manufacturers	
	Ungkost; Adults, 16–79 years ( <i>n</i> = 2672)			(food products)			
	from Norkost food survey						
	(1997); and Adults, aged 16–80 years ( <i>n</i> =						

Country	Population	Sweeteners	Food		Chemical D	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	1375) from						
	Omnibus survey (1997)						
France	Participants of	□Ace-K	7-day food diary	$\Box$ MPL	□Yes	□Yes	Deterministic
Bemrah et al.,	national dietary	□Aspartame		⊠Reported Use	⊠No	⊠No	⊠Simple Distribution
2008 [51]	survey (INCA1,	⊠Cyclamate		Level			$\Box$ Probabilistic
	1998-1999)	$\Box$ Saccharin		$\Box$ Analytical Data			
	All ages ( $n =$	$\Box$ Steviol					2 scenarios:
	3033); children	□Sucralose		Industry use			(1) Individual consumption dat
	and young	$\Box$ Thaumatin		levels collected by			+ Mean concentration of all
	teenagers, 3–14			the DGCCRF			samples
	years (1018);			(2002–2005)			(2) Individual consumption dat
	adults , $\geq 15$						+ Mean concentration of positiv
	years ( <i>n</i> = 1985)						samples
Austria	National	⊠Ace-K	3-day weighted	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
Mischek, 2010	consumption	⊠Aspartame	record	□Reported Use	⊠No	⊠No	$\Box$ Simple Distribution
[56]	data available	⊠Cyclamate	(preschool	Level			$\Box$ Probabilistic
	from Australian	⊠Saccharin	childern), 24-	⊠Analytical Data			
	Nutrition	□Steviol	hour recall	(n = 159,			Consumption data for
	Report 2003 <sup>3</sup> for	□Sucralose	(adults)	beverage samples			population group + average
	Preschool	$\Box$ Thaumatin		collected between			concentration data/default body
	children (3–6			2006–2008)			weight
	years) and						
	adults (19–65) ( <i>n</i>						

Country	Population	Sweeteners	Food		Chemical D	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	= 151 and 2581, respectively)						
Portugal	Total population	□Ace-K	Annual intake	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
Lino and Pena,		□Aspartame	of traditional	□Reported Use	⊠No	⊠No	$\Box$ Simple Distribution
2010 [51]		□Cyclamate	soft drinks and	Level			□Probabilistic
		⊠Saccharin	soft drinks	⊠Analytical Data			
		□Steviol	based on	(n = 48)			Daily intake + Mean
		□Sucralose	mineral water				concentration / Default body
		□Thaumatin	and nectars	Purchased in the			weight
			per Portuguese	central zone of			
			inhabitant	Portugal (2006–			
			(2006)	2007)			
Netherlands	Young adults,	⊠Ace-K	Data on	$\Box$ MPL	□Yes	□Yes	□Deterministic
Hendriksen et al.,	19–30 years ( <i>n</i> =	⊠Aspartame	carbonated soft	□Reported Use	⊠No	⊠No	⊠Simple Distribution
2011 [57]	750)	⊠Cyclamate	drinks from 2	Level			$\Box$ Probabilistic
	Participants of	⊠Saccharin	24-h dietary	⊠Analytical Data			
	DNFCS 2007-	□Steviol	recalls				Individual consumption data +
	2010	□Sucralose		Collected by the			Actual concentrations (or
		$\Box$ Thaumatin		Dutch Food			average, if not available)
				Safety Auhtority			
				(2006 and 2008)			
Belgium	Adults, aged	⊠Ace-K	2×24-hour recall	⊠MPL	□Yes	□Yes	Deterministic
Huvaere <i>et al.,</i>	≥15 years ( $n =$	⊠Aspartame		□Reported Use	⊠No	⊠No	⊠Simple Distribution
2012 [58]	3,083), including	⊠Cyclamate ⊠Saccharin		Level			□Probabilistic

Country	Population	Sweeteners	Food		Chemical D	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	diabetics ( $n =$	□Steviol		⊠Analytical Data			2 scenarios:
	428)	⊠Sucralose		(n = 119)			(A) Individual consumption
	Participants of	$\Box$ Thaumatin					data + MPL
	the Belgian			Sweetened			(B) Individual consumption data
	Food			products collected			+ Mean concentration of positive
	Consumption			from major			samples
	Survey (dating			supermarkets in			
	from 2004)			Belgium (2009– 2010)			
Portugal	Total population	⊠Ace-K	Annual intake	$\Box$ MPL	□Yes	□Yes	⊠Deterministic
Diogo <i>et al.,</i> 2013	I I I I I I I I	⊠Aspartame	of traditional	□Reported Use	⊠No	⊠No	□Simple Distribution
[59]			soft drinks and	Level			$\Box$ Probabilistic
		⊠Saccharin	soft drinks	⊠Analytical Data			
		□Steviol	based on	(n = 78)			Daily intake + Mean
		□Sucralose	mineral water				concentration / Default body
		□Thaumatin	and nectars per	Purchased in			weight
			Portuguese	central zone of			-
			inhabitant	Portugal (2010)			
			(2010)				
France, Italy, UK,	France -	⊠Ace-K	7-day diary	$\boxtimes$ MPL	□Yes	□Yes	Deterministic
Ireland	Participants of	⊠Aspartame	(French survey);	⊠Reported Use	⊠No	⊠No	⊠Simple Distribution
Vin <i>et al.</i> , 2013	the INCA 2	□Cyclamate	3-day diary	Level (collected			⊠Probabilistic
[60]	(2005-2007) aged	$\Box$ Saccharin	(Italian survey);	by Food Drink			
	3-79 years ( <i>n</i> =	□Steviol	4-day or 7-day	Europe)			2 scenarios:
	4079)	□Sucralose	diaries (UK	$\Box$ Analytical Data			

Country	Population	Sweeteners	Food		Chemical D	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	Italy -	$\Box$ Thaumatin	survey); 7-day				(A) Individual consumption
	Participants of		diary (Irish				data + MPL
	the INRAN-		surveys)				(B) Individual consumption dat
	SCAI (2005–						+ range of sweetener
	2006), aged 1						concentrations
	mth to 97 years						
	(n = 3323)						
	UK -						
	Participants of						
	the UK NDNS						
	(1992–2001),						
	aged 1.5 to >65						
	years ( <i>n</i> = 6787)						
	Ireland,						
	Participants of						
	the NSIFCS						
	(1997–1999),						
	NCFS (2003–						
	2004), or NTFS						
	(2005–2006),						
	aged 5–64 years						
	(n = 2414)						
Norway	Children, 2	□Ace-K	Semi-	$\boxtimes$ MPL	⊠Yes	⊠Yes	Deterministic
VKM, 2014a [71]	years ( <i>n</i> = 1674)	□Aspartame	quantitative	⊠Reported Use	□No	$\Box$ No	Simple Distribution
		⊠Cyclamate		Level (2012)			□ Probabilistic

Country	Population	Sweeteners	Food		Chemical D	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	Participants of	⊠Saccharin	FFQ; 2× 24-hour	□Analytical Data	Collected	Annual sales	
	Småbarnskost	⊠Steviol	recall		from	volumes	6 scenarios:
	(2006–2007)	□Sucralose		Soft drinks, "saft",	industry	(L/year) (2012)	(A) Individual consumption
	Young women,	□Thaumatin		nectar, and	(2012)		data + mean concentration +
	18–29 years ( <i>n</i> =			flavoured water			occurence data + market share
	143); Young						data
	men, 18–29						(B) Individual consumption data
	years ( <i>n</i> = 138);						+ mean concentration + market
	30–70 years ( <i>n</i> =						share data
	782); Men 30–70						(C-cyclamate and saccharin)
	years ( <i>n</i> = 724)						Individual consumption data +
	Participants of						highest reported concentration +
	Norkost 3						occurence data
	(2010–2011)						(D-cyclamate and saccharin)
							Individual consumption data +
							highest reported concentration
							(E-steviol glycosides) Individual
							consumption data + MPL +
							occurence data
							(D-steviol glycosides)
							Individual consumption data +
							MPL
Norway	Children, 2	⊠Ace-K	Semi-	$\Box$ MPL	⊠Yes	⊠Yes	□Deterministic
VKM, 2014b [72]	years ( <i>n</i> = 1674)	⊠Aspartame	quantitative	⊠Reported Use	□No	□No	oxtimes Simple Distribution
		□Cyclamate		Level (2012)			□ Probabilistic

Country	Population	Sweeteners	Consumption		Chemical D	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated		Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	Participants of	$\Box$ Saccharin	FFQ; 2× 24-hour	$\Box$ Analytical Data	Collected	Annual sales	
	Småbarnskost	□Steviols	recall		from	volumes	4 scenarios:
	(2007)	⊠Sucralose		Soft drinks, "saft",	industry	(L/year) in	(A) Individual consumption
	Young women,	$\Box$ Thaumatin		nectar, and	(2012)	2012	data + mean concentration +
	18–29 years ( <i>n</i> =			flavoured water			occurence data + market share
	143); Young en,						data
	18–29 years ( <i>n</i> =						(B) Individual consumption data
	138); 30–70						+ mean concentration + market
	years ( <i>n</i> = 782);						share data
	Men 30-70 years						(C) Individual consumption
	(n = 724)						data + highest reported
	Participants of						concentration + occurence data
	Norkost 3						(D) individual consumption
	(2010–2011)						data + highest reported
							concentration
France	Children,1–4	□Ace-K	3-day diary	$\boxtimes$ MPL	□Yes	□Yes	Deterministic
	months ( $n =$	⊠Aspartame		□Reported Use	⊠No	⊠No	⊠Simple Distribution
Mancini et al.,	124); 5–6	□Cyclamate		Level			$\Box$ Probabilistic
2015 [61]	months (127); 7–	□Saccharin		$\Box$ Analytical Data			
	12 months ( <i>n</i> =	□Steviol					Individual consumption data +
	195); 13–36	□Sucralose					MPL
	months ( $n = 259$ )	$\Box$ Thaumatin					
	Participants of						
	the BEBE-SFAE						

Country	Population	Sweeteners	Food		Chemical D	Data	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	dietary survey (2005)						
Belgium	Toddlers,	⊠Ace-K	FAIM-V1.1 tool	$\boxtimes$ MPL	□Yes	□Yes	⊠Deterministic
	children,	⊠Aspartame		□Reported Use	⊠No	⊠No	$\Box$ Simple Distribution
Van Loco <i>et al.,</i>	adolescents,	⊠Cyclamate		Level			$\Box$ Probabilistic
2015 [62]	adults, the	⊠Saccharin		$\Box$ Analytical Data			
	elderly (FAIM	□Steviols					Summary statistics + MPL
	V1.1) ( $n = NR$ )	⊠Sucralose					
		□Thaumatin					
Belgium	Children and	⊠Ace-K	FFQ	$\boxtimes$ MPL	□Yes	□Yes	Deterministic
	adolescents with	⊠Aspartame		□Reported Use	⊠No	⊠No	⊠Simple Distribution
Dewinter et al.,	T1D ( <i>n</i> = 103); 4–	⊠Cyclamate		Level			$\Box$ Probabilistic
2016 [63]	6 years ( <i>n</i> = 9);	⊠Saccharin		oxtimesAnalytical Data			
	7–12 years ( <i>n</i> =	⊠Steviol		(collected by			2 scenarios:
	35); 13–18 years	⊠Sucralose		Huvaere et al.,			(A) Individual consumption
	(n = 59)	□Thaumatin		2012) [58]			data + MPL
	Cohort of T1D						(B) Individual consumption data
	patients from						+ Mean concentration of positive
	the Pediatrics						samples or MPL (stevia only)
	Department of						_
	the University						
	Hospitals						
	Leuven (2014)						

Country	Population	Sweeteners	Food		Chemical Da	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
Ireland	Toddlers and	⊠Ace-K	4-day diary	$\boxtimes$ MPL	⊠Yes	□Yes	Deterministic
	Children ages 1–	⊠Aspartame		□Reported Use	□No	⊠No	⊠Simple Distribution
Martyn <i>et al.,</i> 2016	4 years ( <i>n</i> = 500)	□Cyclamate		Level			⊠Probabilistic
[64]	Participants of	⊠Saccharin		⊠Analytical Data	Irish		
	the NPNS(2011–	□Steviol			National		4 scenarios:
	2012)	⊠Sucralose		FSAI chemical	Food		(A) Individual consumption
		□Thaumatin		Sampling	Ingredient		data + MPL
				Program (2008-	Database V4		(B) Individual consumption data
				2011)			+ MPL + occurence
							(C) Individual consumption
							data + range of concentrations
							(D) Individual consumption
							data + range of concentrations +
							occurence
Ireland	Particpants of	⊠Ace-K	4-day diary	$\boxtimes$ MPL	⊠Yes	□Yes	Deterministic
	the NPNS	⊠Aspartame		⊠Reported Use	□No	⊠No	⊠Simple Distribution
O'Sullivan et al.,	(2010–2011),	□Cyclamate		Level (FSMPs,			$\boxtimes$ Probabilistic
2016 [65]	aged 1–3 years	□Saccharin		provided by	Health		
	(n = 376), used	□Steviol		Nutricia)	Service		5 scenarios <sup>4</sup> :
	as a surrogate	⊠Sucralose		$\Box$ Analytical Data	Exceutive		(1) Individual consumption data
	for children	□Thaumatin			(HSE) list of		+ MPL + 75% adherence
	with PKU and				Reimbursabl		(2a) Individual consumption
	CMPA				e Items		data+ range of concentrations <sup>5</sup> +
							75% adherence

Country	Population	Sweeteners	Food		Chemical Da	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
							(2b) Individual consumption data+ range of concentrations <sup>5</sup> +
							50% adherence (Scenario 2b)
							(3a) Individual consumption
							data + range of use levels +
							occurence + 75% adherence);
							(3b) Individual consumption
							data + Range of use levels +
							Occurence + 50% adherence
Ireland	Adults, 18–90	⊠Ace-K	4-day diary	$\boxtimes$ MPL	⊠Yes	□Yes	□Deterministic
Buffini et al., 2017	years ( <i>n</i> = 1413)	⊠Aspartame		$\Box$ Reported Use	□No	⊠No	$\boxtimes$ Simple Distribution
[69]	Participants of	⊠Cyclamate		Level			□Probabilistic
	the National	⊠Saccharin		$\square$ Analytical Data	Irish		2
	Adult Nutrition	⊠Steviol ⊠Sucralose		(n = 377)	National Food		3 scenarios:
	Survey (2011)			Collected from	Ingredient		(A) Individual consumption data + MPL
				major Irish	Database V4		(B) Individual consumption data
				supermarkets	and food		+ MPL + occurrence
				ouponnuncio	label survey		(C) Individual consumption
					5		data + Actual concentration +
							occurence
Italy	All ages, ≥3	⊠Ace-K	3-day diary	$\boxtimes$ MPL	⊠Yes	□Yes	□Deterministic
Le Donne <i>et al.</i> ,	years ( <i>n</i> = 3,270)	⊠Aspartame		□Reported Use	□No	⊠No	⊠Simple Distribution
2017 [66]	Participants of	⊠Cyclamate		Level			⊠Probabilistic
	the INRAN-	⊠Saccharin		⊠Analytical Data			

Country	Population	Sweeteners	Food		Chemical Da	nta	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
	SCAI (2005–	⊠Steviol		( <i>n</i> = 304 for stevia;	Food label		3 scenarios:
	2006)	⊠Sucralose		n = 290 all other)	survey		(A) Individual consumption
		⊠Thaumatin			conducted in		data + MPL
				Steviol glycoside	Rome (2014)		(B) Individual consumption data
				samples			+ MPL + occurence
				purchased in			(C) Individual consumption
				Rome; other			data + Range of concentrations +
				sweeteners			occurence
				purchased in Italy			
				and analyzed			
				Janvier et al., 2015			
Ireland	Young healthy	⊠Ace-K	4-day food diary	$\boxtimes$ MPL	⊠Yes	□Yes	□Deterministic
O'Sullivan et al.,	children, 1.5–3	$\Box$ Aspartame		⊠Reported Use	□No	⊠No	$\boxtimes$ Simple Distribution
2017 [67]	years ( <i>n</i> = 2096),	□Cyclamate		Level (FSMPs,			⊠Probabilistic
	used as a	$\Box$ Saccharin		provided by	NHS Drug		
	surrogate for	□Steviol		Nutricia)	Tariff back		4 scenarios:
	children with	⊠Sucralose		$\Box$ Analytical Data	issues,		(A) MPL + 75% adherence
	PKU	□Thaumatin			obtained		(B) MPL + 50% adherence
	Participants of				from the		(C) Range of concentrations +
	the UK NDNS				British		occurence + 75% adherence
	(1992–1993;				National		(D) Range of concentrations +
	2008–2010;				Library		occurence + 50% adherence
	2011–2012)				Service		
					(1992-2012)		

Country	Population	Sweeteners	Food		Chemical Da	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
EU Member	Infants,	□Ace-K	Range of dietary	$\boxtimes$ MPL	⊠Yes	□Yes	⊠Deterministic
States	toddlers, other	$\Box$ Aspartame	intake	□Reported Use	□No	⊠No	$\Box$ Simple Distribution
	children,	$\Box$ Cyclamate	methodologies	Level			$\Box$ Probabilistic
Tennant and	adolescents,	□Saccharin	included in the	$\Box$ Analytical Data	Mintel		
Bruyninckx, 2017	adults, elderly,	⊠Steviol	EFSA		Global New		4 scenarios:
[68]	very elderly $(n =$	□Sucralose	Comprehensive		Products		(A) Summary statistics + MPL
	NR)	$\Box$ Thaumatin	European Food		Database		(B) Summary statistics + MPL +
			Consumption		(2015)		brand loyal
			Database, Level				(C) Summary statistics + MPL +
			3 summary				occurence
			statistics				(D) Summary statistics + MPL +
							Occurence + brand loyal
EU Member	Toddlers, 12–35	□Ace-K	Range of dietary	$\boxtimes$ MPL	□Yes	□Yes	⊠Deterministic
States	months;	⊠Aspartame	intake	⊠Reported Use	⊠No	⊠No	$\Box$ Simple Distribution
	Children, 3–9	$\Box$ Cyclamate	methodologies	Level			$\Box$ Probabilistic
EFSA, 2013 [70]	years;	$\Box$ Saccharin	included in the	⊠Analytical Data			
	Adolescents, 10-	□Steviol	EFSA				2 scenarios:
	17 years; Adults,	□Sucralose	Comprehensive	Combination of			(A) Summary statistics + MPL
	18-64 years;	$\Box$ Thaumatin	European Food	industry use			(B) Summary statistics + actual
	Elderly, ≥65		Consumption	levels and			concentration
	years ( $n = NR$ )		Database (2010)	analytical data			(reported/analytical)
			[79]				
EU Member	Toddlers, 12–35	□Ace-K	Range of dietary	⊠MPL+	□Yes	□Yes	⊠Deterministic
States	months;	$\Box$ Aspartame	intake	extension of use6	⊠No	⊠No	$\Box$ Simple Distribution
	Children, 3–9	□Cyclamate	methodologies				□Probabilistic

Country	Population	Sweeteners	Food		Chemical D	ata	Assessment Model(s)
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
EFSA, 2015a [73]	years;	□Saccharin	included in the	□Reported Use			
	Adolescents, 10-	⊠Steviol	EFSA	Level			Summary statistics +
	17 years; Adults,	□Sucralose	Comprehensive	$\Box$ Analytical Data			MPL/extension of use
	18–64 years;	□Thaumatin	European Food				
	Elderly, ≥65		Consumption				
	years ( $n = NR$ )		Database (2010)				
			[79]				
EU Member	Toddlers, 12–35	□Ace-K	FAIM tool	⊠MPL +	□Yes	□Yes	⊠Deterministic
States	months;	$\Box$ Aspartame	(summary	extension of use 7	⊠No	⊠No	$\Box$ Simple Distribution
EFSA, 2015b [74]	Children, 3–9	□Cyclamate	intakes)	$\Box$ Reported Use			$\Box$ Probabilistic
	years;	$\Box$ Saccharin		Level			
	Adolescents, 10-	□Steviol		$\Box$ Analytical Data			Summary statistics +
	17 years; Adults,	□Sucralose					MPL/extension of use
	18–64 years; Elderly, ≥65	⊠Thaumatin					
	years ( $n = NR$ )						
Assessment from	Young children,	⊠Ace-K	Fixed protein	Fixed value of 4.1,	□Yes	□Yes	⊠Deterministic
FSMPs in Young	1-3 years	$\Box$ Aspartame	intake (absolute	5.9, or 9 mg ace-	⊠No	⊠No	$\Box$ Simple Distribution
Children		$\Box$ Cyclamate	or bw)	k/g protein			$\Box$ Probabilistic
EFSA, 2016a [75]		$\Box$ Saccharin					
		□Steviol					6 scenarios:
		□Sucralose					(A) 9 mg ace-k/g protein,
		□Thaumatin					providing 20 g protein/day
							(B) 9 mg ace-k/g protein,
							providing 10 g protein/day

Country	Population	Sweeteners	Food		Chemical D	Assessment Model(s)	
Reference	Group Examined ( <i>n</i> )	Investigated	Consumption Data	Concentration Data <sup>1</sup>	Presence Data	Market Share Data	Details
Assessment from FSMPs in Young Children EFSA, 2016b [76]	Young children, 1–3 years	□Ace-K □Aspartame □Cyclamate □Saccharin □Steviol ⊠Sucralose □Thaumatin	Fixed protein intake (absolute or bw)	Data <sup>1</sup> Fixed value of 4 mg sucralose/g protein	Data □Yes ⊠No	Data □Yes ⊠No	<ul> <li>(C) 5.9 mg ace-k/g protein, providing 3 g protein/kg bw/day</li> <li>(D) 4.1 mg ace-k/g protein, providing 3 g protein/kg bw/day</li> <li>(E) 5.9 mg ace-k/g protein, providing 20 g protein/ day</li> <li>(F) 5.9 mg ace-k/g protein, providing 10 g proteinday</li> <li>⊠Deterministic</li> <li>□Simple Distribution</li> <li>□Probabilistic</li> <li>3 scenarios, wherein there is 4 mg sucralose/g protein: (A) Standard fixed protein</li> </ul>
							intake of 14.5 g/day (B) Maximum protein intake of 3 g/kg bw/day (C) Protein intake ranging between 0.95 to 0.73 g /kg bw/day in children weighing between 10.2 to 14.7 kg

Ace-K = acesulfame-K; bw = body weight; CMPA = cow's milk protein allergy; DGCCRF = Directorate General for Fair Trading, Consumer Affairs and Fraud Control; DNFCS = Dutch National Food Consumption Survey; EFSA = European Food Safety Authority; EU = European Union; FAIM = Food Additive Intake Model; FFQ = food frequency questionnaire; FSAI = Food Safety Authority of Ireland; FSMP = foods for special medical purposes; HSE = Health Service Exceutive; INCA = Individual and National Study on Food Consumption; INRAN-SCAI = Italian National Food Consumption Survey; MPL = maximum permitted level; n = sample size; n/a = not applicable; NCFS = National Children's Food Survey; NDNS = National Diet and Nutrition Surveys; NHS = National Health Service; NPNS = National Pre-school Nutrition Survey; NR = not reported; NSIFCS = North/South Ireland Food Consumption Survey; NTFS = National Teens Food Survey; PKU = phenylketonuria; SFAE = French Association for Children's Food; T1D = type 1 diabetes; UK = United Kingdom. <sup>1</sup> MPL values for European studies obtained from Regulation 1333/2008 [77]. <sup>2</sup> Intake from food estimated for adults only. <sup>3</sup> Survey detail reported in Mischek [56] limited; survey details obtained from Elmadfa and Freisling (2004). <sup>4</sup> Assessment was also conducted using the FAIM template; however the authors noted that this database is not suitable for estimating exposures of young patients to artificial sweeteners from FSMPs because of the differences in dietary consumption patterns compared with healthy young children. <sup>5</sup> Data for scenarios 2a and 2b based on information from Table 2 in manuscript. <sup>6</sup> Extension of use of up to 29 mg/L steviol equivalents in tea, coffee, herbal infusion beverages, instant coffee and instant cappuccino products. <sup>7</sup> Extension of use of up to 5 mg/L thaumatin in flavored drinks. Extended condition of use as a flavor carrier. *Quantum satis* in all food flavorings.

Country	Population Group Examined (n)	Sweeteners	Food		Chemical D	Assessment Model(s)	
Reference		Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
Argentina	Cohort of	⊠Ace-K	FFQ of non-	$\Box$ MPL	⊠Yes	□Yes	Deterministic
Cagnasso et al.,	children and	⊠Aspartame	alcoholic	⊠Reported use	□No	⊠No	⊠Simple Distribution
2007 [81]	adolescents	⊠Cyclamate	beverages	level			$\Box$ Probabilistic
	attending public	⊠Saccharin	combined with	$\Box$ Analytical data	Food label		
	and private	□Steviol	portion size data		data		Individual consumption data +
	schools (middle	□Sucralose	(Technical	Concentration			use levels from food labels
	and upper	$\Box$ Thaumatin	Resolution	declared on			
	middle class) in		MERCOSUR	beverage labels			
	Buenos Aires, 3–		47/03)				
	18 years ( <i>n</i> =						
	190)						
Chile	Cohort of	⊠Ace-K	FFQ of 122 food	$\Box$ MPL	⊠Yes	□Yes	Deterministic
Durán Agüero <i>et</i>	children	⊠Aspartame	products	⊠Reported use	□No	⊠No	$\boxtimes$ Simple Distribution
al., 2011 [82]	attending school	⊠Cyclamate	containing	level			$\Box$ Probabilistic
	in the	⊠Saccharin	artificial	$\Box$ Analytical data	Food label		
	Valparaíso	⊠Steviol	sweeteners		data		Individual consumption data +
	region, 6–14	⊠Sucralose	collected from	Concentration			use levels from food labels
	years ( <i>n</i> = 281)	□Thaumatin	local	declared on food			
			supermarkets, ,	labels			
			combined with				
			household				
			measures				

Table S4. Methodologies Utilized for Intake Assessments Conducted for Low-/No-Calorie Sweeteners in Latin America.

Country	Population	Sweeteners	Food		Chemical D	ata	Assessment Model(s)
Reference	Group Examined (n)	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
Chile	Cohort from the	⊠Ace-K	FFQ of 207 food	$\Box$ MPL	⊠Yes	□Yes	Deterministic
Hamilton et al.,	Metropolitan	⊠Aspartame	products	⊠Reported use	□No	⊠No	⊠Simple Distribution
2013 [85]	region involving	⊠Cyclamate	containing	level			$\Box$ Probabilistic
	Adults, 18–79	⊠Saccharin	artificial	$\Box$ Analytical data	Food label		
	years ( <i>n</i> = 477);	⊠Steviol	sweeteners,		data		Individual consumption data +
	children, 6–17	⊠Sucralose	combined with	Concentration			use levels from food labels
	years ( <i>n</i> = 516);	$\Box$ Thaumatin	food atlas of	declared on food			
	adults with		portion sizes	labels			
	diabetes		collected from				
	(Type1/2), 18–79		Chilean markets				
	years ( <i>n</i> = 155);						
	children with						
	diabetes (Type						
	1), 3–17 years ( <i>n</i>						
	= 63)						
Chile	Cohort of school	⊠Ace-K	FFQ (1 week) of	$\Box$ MPL	⊠Yes	□Yes	□Deterministic
Durán Agüero et	children from	⊠Aspartame	144 food	⊠Reported use	□No	⊠No	⊠Simple Distribution
al., 2014 [83]	Viña del Mar	⊠Cyclamate	products	level			$\Box$ Probabilistic
	and Santiago,	⊠Saccharin	containing	$\Box$ Analytical data	Food label		
	10–16 years ( <i>n</i> =	□Steviol	artificial		data		Individual consumption data +
	571)	⊠Sucralose	sweeteners,	Concentration			use levels from food labels
		$\Box$ Thaumatin	combined with	declared on food			
			household	labels			
			measures				

Country	Population	Sweeteners	Food		Chemical D	ata	Assessment Model(s)
Reference	Group Examined (n)	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
Chile, Panama,	Cohort of adults	⊠Ace-K	FFQ (1 week) of	$\Box$ MPL	⊠Yes	□Yes	□Deterministic
Guatemala, and	attending	⊠Aspartame	122, 109, 29, and	⊠Reported use	□No	⊠No	⊠Simple Distribution
Peru	university from	$\Box$ Cyclamate	124 food	level			$\Box$ Probabilistic
	each country,	$\Box$ Saccharin	products	$\Box$ Analytical data	Food label		
Durán Agüero et	18-26 years ( <i>n</i> =	□Steviol	containing		data		Individual consumption data +
al., 2015a [86]	1224)	⊠Sucralose	artificial	Concentration			use levels from food labels
		$\Box$ Thaumatin	sweeteners,	declared on food			
			combined with	labels			
			household				
			measures,				
			collected from				
			Chile, Panama,				
			Guatemala, and				
			Peru,				
			respectively				
Chile, Panama,	Cohort of adults	⊠Ace-K	FFQ (1 week)	$\Box$ MPL	⊠Yes	□Yes	Deterministic
Guatemala, and	attending	⊠Aspartame	for carbonated	⊠Reported use	□No	⊠No	⊠Simple Distribution
Peru	university from	$\Box$ Cyclamate	beverage	level			$\Box$ Probabilistic
	each country,	$\Box$ Saccharin	products	$\Box$ Analytical data	Food label		
Durán Agüero et	aged 18–26	□Steviol	containing		data		Individual consumption data +
al., 2015b [87]	years ( <i>n</i> = 1229)	⊠Sucralose	artificial	Concentration			use levels from food labels
		$\Box$ Thaumatin	sweeteners,	declared on food			
			combined with	labels			
			food atlas of				
			portion sizes				

Country	Population	Sweeteners	Food Consumption Data		Chemical D	Assessment Model(s)	
Reference Group	Group Examined (n)	Investigated		Concentration Data	Presence Data	Market Share Data	Details
Chile	Cohort of adults	□Ace-K	FFQ (1 week) of	$\Box$ MPL	⊠Yes	□Yes	
Durán Agüero et	attending 4	□Aspartame	food and	⊠Reported use	□No	⊠No	⊠Simple Distribution
al., 2015c [84]	different	$\Box$ Cyclamate	beverage	level			□Probabilistic
	universities	$\Box$ Saccharin	products	$\Box$ Analytical data	Food label		
	(first year	⊠Steviol	containing		data		Individual consumption data +
	students, mean	□Sucralose	stevia	Concentration			use levels from food labels
	age 20.3 to 20.8	□Thaumatin		declared on food			
	years ( <i>n</i> = 486)			labels			

Ace-K = acesulfame-K; FFQ= food frequency questionnaire; MPL = maximum permitted level; *n* = sample size; SD = standard deviation.

Country	Population	Sweeteners	Food		Chemical D	Data	Assessment Model(s)
Reference	Group Examined (n)	Investigated	Consumption Data	Concentration Data	Presence Data	Market Share Data	Details
Global	Global	□Ace-K	GEMS/Food	Replacement of	□Yes	□Yes	⊠Deterministic
JECFA, 2009 [17]	population;	□Aspartame	consumption	dietary sugars by	⊠No	⊠No	$\Box$ Simple Distribution
	China; Japan;	□Cyclamate	database; per	stevia according			$\Box$ Probabilistic
	US	$\Box$ Saccharin	capita	to sweeteness			
		⊠Steviol	disappearance	ratio (1:200)			In addition to published dietary
		□Sucralose	(China and				exposure analyses
		$\Box$ Thaumatin	Japan); per capita				
			replacement				
			(Japan, US);				
			consumption				
			data reported in				
			children, and				
			diabetic				
			children/adults				
Global	Global	□Ace-K	Various dietary	$\boxtimes$ MPL	□Yes	□Yes	Published dietary exposure
JECFA, 2010 [92]	population	□Aspartame	surveys	⊠Reported use	⊠No	⊠No	analyses
		⊠Cyclamate	conducted in	level			
		□Saccharin	Australia,	⊠Analytical data			
		□Steviol	Brazil,				
		□Sucralose	Germany, Italy,				
		$\Box$ Thaumatin	New Zealand,				
			Spain, and the				
			United				
			Kingdom				