

Indicators of Diet Quality, Nutrition, and Health for Americans by Program Participation Status, 2011–2016: WIC Report



Appendix F. Usual Micronutrient Intake



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Appendix F. Usual Micronutrient Intake



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Appendix F. Usual Micronutrient Intake

Table F.1. Vitamin A (Micrograms Retinol Activity Equivalent): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	557	(8.4)	902	534	(13.9)	729	546	(16.6)	671	591 **	(16.9)
1-year-olds	590	574	(15.5)	275	519	(24.6)	143	603	(35.2)	167	620 **	(29.1)
2-year-olds	701	548	(13.3)	282	544	(21.8)	222	523	(27.6)	193	578	(27.5)
3-year-olds	522	567	(17.1)	186	547	(22.0)	171	513	(28.7)	162	622	(34.7)
4-year-olds	501	541	(20.4)	159	525	(39.0)	193	545	(39.8)	149	545	(41.8)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	99.0	(0.48)	902	97.9	(1.15)	729	99.6	(0.42)	671	98.5	(0.93)
1-year-olds	590	99.8	(0.14)	275	99.0	(0.77)	143	99.9	(0.17)	167	100.0	(0.01)
2-year-olds	701	99.5	(0.46)	282	98.3	(1.05)	222	99.6	(0.90)	193	100.0	(0.38)
3-year-olds	522	99.9	(0.17)	186	100.0	(0.32)	171	99.0	(1.30)	162	100.0	(0.13)
4-year-olds	501	96.8	(1.87)	159	94.2	(4.40)	193	100.0	(0.48)	149	93.9	(3.71)

See notes at end of table.

Table F.1a. Vitamin A (Micrograms Retinol Activity Equivalent): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	320	361	392	440	542	656	724	773	849
1-year-olds	332	375	405	454	557	674	744	794	875
2-year-olds	306	349	380	429	532	648	717	767	844
3-year-olds	344	384	413	459	554	659	720	766	833
4-year-olds	297	338	369	419	523	642	714	767	844
WIC participants	295	338	368	418	519	633	702	752	830
1-year-olds	274	317	349	399	503	620	691	742	823
2-year-olds	265	315	351	408	525	660	742	800	890
3-year-olds	373	407	429	466	538	619	667	701	754
4-year-olds	267	312	343	396	507	633	709	765	854
Income-eligible nonparticipants	338	377	403	445	533	631	690	731	799
1-year-olds	357	400	431	481	585	703	777	830	914
2-year-olds	296	339	365	410	507	618	684	730	805
3-year-olds	279	323	352	401	499	610	675	719	796
4-year-olds	423	447	464	490	542	596	627	648	682
Higher income nonparticipants	356	398	426	475	574	689	757	806	887
1-year-olds	408 *	446 **	471 *	515 *	603	707	768	814	892
2-year-olds	385	424	448	490	570	658	709	742	801
3-year-olds	368	414	444	498	604	727	799	850	934
4-year-olds	263	308	342	398	520	664	754	817	923

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.2. Vitamin B6 (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	1.30	(0.020)	902	1.35	(0.036)	729	1.35	(0.035)	671	1.25 *	(0.030)
1-year-olds	590	1.15	(0.032)	275	1.09	(0.039)	143	1.18	(0.066)	167	1.20	(0.050)
2-year-olds	701	1.30	(0.028)	282	1.35	(0.054)	222	1.32	(0.053)	193	1.24	(0.047)
3-year-olds	522	1.34	(0.041)	186	1.43	(0.057)	171	1.37	(0.073)	162	1.30	(0.072)
4-year-olds	501	1.41	(0.054)	159	1.51	(0.112)	193	1.53	(0.087)	149	1.25 *	(0.066)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	100.0	(0.02)	902	99.9	(0.06)	729	100.0	(0.06)	671	100.0	(0.07)
1-year-olds	590	100.0	(0.05)	275	99.7	(0.25)	143	99.9	(0.15)	167	100.0	(0.00)
2-year-olds	701	100.0	(0.07)	282	100.0	(0.00)	222	99.9	(0.16)	193	100.0	(0.19)
3-year-olds	522	100.0	(0.01)	186	100.0	(0.07)	171	100.0	(0.00)	162	100.0	(0.05)
4-year-olds	501	100.0	(0.03)	159	100.0	(0.00)	193	100.0	(0.00)	149	99.8	(0.20)

See notes at end of table.

Table F.2a. Vitamin B6 (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	0.80	0.80	0.90	1.00	1.20	1.50	1.60	1.70	1.90
1-year-olds	0.60	0.70	0.80	0.90	1.10	1.30	1.40	1.50	1.60
2-year-olds	0.70	0.80	0.90	1.00	1.20	1.50	1.60	1.70	1.90
3-year-olds	0.80	0.90	0.90	1.00	1.30	1.50	1.70	1.80	1.90
4-year-olds	0.90	1.00	1.00	1.10	1.30	1.60	1.70	1.80	1.90
WIC participants	0.80	0.90	1.00	1.10	1.30	1.50	1.60	1.70	1.90
1-year-olds	0.60	0.60	0.70	0.80	1.00	1.20	1.40	1.50	1.60
2-year-olds	0.80	0.90	1.00	1.10	1.30	1.50	1.60	1.70	1.90
3-year-olds	0.80	0.90	1.00	1.10	1.30	1.60	1.80	1.90	2.10
4-year-olds	1.10	1.20	1.20	1.30	1.50	1.60	1.70	1.80	1.90
Income-eligible nonparticipants	0.80	0.90	1.00	1.10	1.30	1.50	1.60	1.70	1.90
1-year-olds	0.60	0.70	0.80	0.90	1.10	1.30	1.50	1.60	1.70
2-year-olds	0.70	0.80	0.90	1.00	1.20	1.50	1.70	1.80	2.00
3-year-olds	0.90	1.00	1.00	1.10	1.30	1.50	1.60	1.70	1.80
4-year-olds	1.10	1.20	1.20	1.30	1.50	1.60	1.70	1.80	1.90
Higher income nonparticipants	0.70	0.80	0.90	1.00	1.20	1.40	1.50	1.60	1.80
1-year-olds	0.80	0.80	0.90	1.00	1.10	1.30	1.40	1.50	1.60
2-year-olds	0.70	0.80	0.90	1.00	1.20	1.40	1.50	1.60	1.70
3-year-olds	0.70	0.80	0.90	1.00	1.20	1.50	1.60	1.80	2.00
4-year-olds	0.70	0.80	0.80	0.90	1.10	1.40	1.60	1.70	1.90

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.3. Vitamin B12 (Micrograms): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	3.97	(0.056)	902	4.04	(0.106)	729	4.13	(0.116)	671	3.86	(0.093)
1-year-olds	590	3.99	(0.086)	275	3.93	(0.150)	143	4.26	(0.204)	167	3.97	(0.186)
2-year-olds	701	3.97	(0.121)	282	4.02	(0.164)	222	4.07	(0.228)	193	3.87	(0.166)
3-year-olds	522	3.96	(0.105)	186	4.18	(0.150)	171	3.92	(0.216)	162	3.91	(0.196)
4-year-olds	501	3.97	(0.133)	159	4.03	(0.326)	193	4.27	(0.272)	149	3.69	(0.195)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	100.0	(0.03)	902	99.9	(0.05)	729	100.0	(0.03)	671	100.0	(0.05)
1-year-olds	590	100.0	(0.03)	275	99.9	(0.08)	143	99.9	(0.11)	167	100.0	(0.06)
2-year-olds	701	100.0	(0.04)	282	99.9	(0.08)	222	100.0	(0.05)	193	100.0	(0.05)
3-year-olds	522	100.0	(0.00)	186	100.0	(0.00)	171	100.0	(0.03)	162	100.0	(0.00)
4-year-olds	501	100.0	(0.09)	159	99.9	(0.19)	193	100.0	(0.03)	149	99.9	(0.17)

See notes at end of table.

Table F.3a. Vitamin B12 (Micrograms): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	2.10	2.40	2.60	3.00	3.80	4.70	5.20	5.60	6.20
1-year-olds	1.90	2.30	2.50	2.90	3.80	4.80	5.40	5.80	6.50
2-year-olds	1.90	2.30	2.50	2.90	3.80	4.70	5.30	5.70	6.40
3-year-olds	2.30	2.60	2.80	3.10	3.80	4.60	5.00	5.40	5.80
4-year-olds	2.20	2.50	2.70	3.00	3.80	4.70	5.20	5.50	6.10
WIC participants	2.10	2.40	2.70	3.10	3.90	4.80	5.30	5.70	6.30
1-year-olds	1.80	2.20	2.40	2.90	3.80	4.70	5.30	5.80	6.40
2-year-olds	1.90	2.30	2.50	3.00	3.90	4.80	5.40	5.80	6.50
3-year-olds	2.70	3.00	3.20	3.50	4.10	4.70	5.10	5.40	5.80
4-year-olds	2.10	2.40	2.60	3.00	3.80	4.80	5.40	5.80	6.50
Income-eligible nonparticipants	2.10	2.50	2.70	3.10	3.90	4.90	5.50	5.90	6.60
1-year-olds	1.80	2.20	2.50	2.90	4.00	5.20	6.00	6.60	7.50
2-year-olds	1.90	2.20	2.50	2.90	3.80	4.90	5.60	6.10	6.90
3-year-olds	2.20	2.50	2.70	3.10	3.80	4.60	5.00	5.30	5.90
4-year-olds	2.60	2.90	3.10	3.50	4.10	4.90	5.30	5.60	6.10
Higher income nonparticipants	2.10	2.40	2.60	3.00	3.70	4.50	5.00	5.40	6.00
1-year-olds	2.00	2.40	2.60	3.10	3.80	4.70	5.20	5.50	6.10
2-year-olds	2.10	2.40	2.60	3.00	3.70	4.50	5.00	5.30	5.90
3-year-olds	2.20	2.50	2.70	3.00	3.70	4.60	5.10	5.40	6.00
4-year-olds	2.00	2.20	2.50	2.80	3.50	4.30	4.80	5.20	5.80

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.4. Vitamin C (Micrograms): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	78	(2.2)	902	87	(3.3)	729	81	(3.0)	671	69 ***	(3.6)
1-year-olds	590	76	(3.6)	275	80	(5.2)	143	83	(7.4)	167	68	(5.5)
2-year-olds	701	77	(3.5)	282	96	(5.2)	222	70 ***	(4.6)	193	66 ***	(5.1)
3-year-olds	522	80	(5.5)	186	86	(6.2)	171	82	(6.7)	162	79	(10.1)
4-year-olds	501	78	(4.4)	159	86	(9.2)	193	90	(5.0)	149	64	(7.0)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	99.0	(0.36)	902	99.6	(0.48)	729	99.1	(0.49)	671	98.0	(1.04)
1-year-olds	590	99.1	(0.46)	275	99.6	(0.38)	143	99.3	(1.41)	167	98.3	(0.94)
2-year-olds	701	99.6	(0.26)	282	100.0	(0.04)	222	98.7	(1.08)	193	99.6	(1.02)
3-year-olds	522	99.9	(0.17)	186	99.9	(0.19)	171	100.0	(0.11)	162	99.7	(0.58)
4-year-olds	501	97.3	(1.35)	159	98.9	(1.86)	193	98.6	(0.90)	149	94.2	(3.86)

See notes at end of table.

Table F.4a. Vitamin C (Micrograms): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	27	34	40	49	71	99	117	130	152
1-year-olds	23	31	36	46	69	97	116	130	152
2-year-olds	27	34	39	48	70	97	116	130	152
3-year-olds	31	38	43	53	74	100	117	131	151
4-year-olds	27	34	39	49	71	99	118	132	153
WIC participants	35	43	49	59	81	109	126	139	161
1-year-olds	26	34	40	50	74	103	122	136	159
2-year-olds	47	55	61	71	92	117	133	144	163
3-year-olds	35	44	49	59	81	106	123	134	153
4-year-olds	32 u	40	45	56	79	109	128	143	168
Income-eligible nonparticipants	28	36	41	51	74	103	122	136	160
1-year-olds	25	33	39	50	75	106	127	143	169
2-year-olds	20	27 *	32 **	40 ***	62 ***	91	111	125	151
3-year-olds	36	43	48	57	76	101	117	129	150
4-year-olds	32	41	47	58	83	114	134	148	172
Higher income nonparticipants	23	29	34 *	43 **	63 ***	88 *	105	118	140
1-year-olds	20	27	32	41	61	89	106	118	141
2-year-olds	24	30	35 *	43 **	60 ***	84 *	99	110	130
3-year-olds	27 u	34	39	48	70	99	119	134	160
4-year-olds	21 u	27	31	39	58	82	98	110	130

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * p < .05, ** p < .01, or *** p < .001. Differences were tested using two-sample t-tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.5. Vitamin D (Micrograms): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	6.7	(0.11)	902	6.8	(0.18)	729	6.9	(0.21)	671	6.5	(0.19)
1-year-olds	590	8.1	(0.24)	275	8.1	(0.30)	143	8.7	(0.41)	167	8.0	(0.51)
2-year-olds	701	6.6	(0.18)	282	6.8	(0.31)	222	6.4	(0.33)	193	6.6	(0.33)
3-year-olds	522	6.3	(0.24)	186	6.8	(0.38)	171	6.2	(0.47)	162	6.2	(0.38)
4-year-olds	501	5.7	(0.23)	159	5.3	(0.42)	193	6.3	(0.46)	149	5.5	(0.28)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	13.7	(1.19)	902	13.1	(1.64)	729	15.1	(2.12)	671	13.5	(2.06)
1-year-olds	590	26.2	(2.81)	275	25.6	(3.18)	143	32.8	(4.39)	167	24.6	(6.15)
2-year-olds	701	13.0	(1.96)	282	14.8	(3.04)	222	11.3 u	(3.53)	193	13.6	(3.67)
3-year-olds	522	9.5	(2.48)	186	9.0 u	(4.35)	171	9.1 u	(4.19)	162	10.3 u	(3.72)
4-year-olds	501	6.3 u	(2.16)	159	3.5 u	(2.18)	193	7.9 u	(4.77)	149	5.7 u	(2.02)

See notes at end of table.

Table F.5a. Vitamin D (Micrograms): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	2.6	3.2	3.7	4.5	6.3	8.3	9.5	10.4	11.8
1-year-olds	3.4	4.2	4.8	5.8	7.8	10.1	11.4	12.3	13.7
2-year-olds	2.3	3.0	3.5	4.3	6.1	8.3	9.6	10.5	12.0
3-year-olds	2.5	3.0	3.5	4.2	5.8	7.8	8.9	9.8	11.2
4-year-olds	2.1	2.6	3.1	3.8	5.4	7.2	8.3	9.1	10.3
WIC participants	2.8	3.5	4.0	4.8	6.4	8.3	9.5	10.3	11.6
1-year-olds	3.2	4.1	4.7	5.7	7.8	10.0	11.3	12.3	13.8
2-year-olds	2.4	3.2	3.7	4.6	6.5	8.6	9.9	10.8	12.3
3-year-olds	3.6	4.1	4.5	5.2	6.5	8.1	9.1	9.8	10.9
4-year-olds	2.1	2.6	3.0	3.6	5.0	6.6	7.6	8.3	9.5
Income-eligible nonparticipants	2.8	3.4	3.9	4.7	6.5	8.6	9.8	10.7	12.2
1-year-olds	3.6	4.5	5.1	6.2	8.4	10.8	12.3	13.4	15.0
2-year-olds	2.4	3.1	3.5	4.3	6.0	8.1	9.3	10.2	11.6
3-year-olds	2.4	3.0	3.4	4.1	5.7	7.6	8.9	9.7	11.3
4-year-olds	2.7	3.3	3.7	4.5	6.0	7.7	8.8	9.5	10.7
Higher income nonparticipants	2.4	3.0	3.5	4.4	6.1	8.2	9.5	10.4	11.9
1-year-olds	3.4	4.3	4.8	5.8	7.7	9.9	11.2	12.1	13.6
2-year-olds	2.2	2.9	3.4	4.2	6.1	8.3	9.7	10.7	12.3
3-year-olds	2.1	2.7	3.1	4.0	5.7	7.8	9.1	10.0	11.5
4-year-olds	1.8	2.4	2.8	3.5	5.1	7.0	8.1	8.9	10.3

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

u Indicates individual estimates did not meet the standards of reliability or precision because of large coefficient of variation

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.6. Vitamin E (Milligrams Alpha-Tocopherol): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	5.2	(0.08)	902	4.9	(0.14)	729	5.3 *	(0.15)	671	5.3 *	(0.14)
1-year-olds	590	4.5	(0.18)	275	4.0	(0.20)	143	5.3 **	(0.36)	167	4.7	(0.29)
2-year-olds	701	4.8	(0.13)	282	4.8	(0.26)	222	4.9	(0.27)	193	4.8	(0.30)
3-year-olds	522	5.6	(0.15)	186	5.3	(0.23)	171	5.1	(0.26)	162	6.1 *	(0.28)
4-year-olds	501	5.7	(0.15)	159	5.4	(0.41)	193	6.0	(0.32)	149	5.6	(0.21)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	43.1	(1.78)	902	36.1	(4.27)	729	45.5	(3.53)	671	45.8	(3.17)
1-year-olds	590	33.4	(3.60)	275	22.1	(4.79)	143	47.4 ***	(5.86)	167	34.6	(5.27)
2-year-olds	701	40.6	(3.34)	282	39.8	(6.27)	222	42.1	(6.88)	193	40.0	(7.99)
3-year-olds	522	60.7	(3.66)	186	54.9	(5.94)	171	47.2	(6.97)	162	73.4 *	(7.02)
4-year-olds	501	37.3	(3.62)	159	27.0 u	(13.92)	193	45.4	(8.27)	149	34.6	(4.30)

See notes at end of table.

Table F.6a. Vitamin E (Milligrams Alpha-Tocopherol): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	2.7	3.1	3.4	3.9	4.9	6.1	6.8	7.4	8.3
1-year-olds	1.9	2.3	2.6	3.0	4.1	5.5	6.4	7.1	8.2
2-year-olds	2.5	2.9	3.2	3.6	4.6	5.7	6.4	6.9	7.8
3-year-olds	3.2	3.6	3.9	4.4	5.4	6.6	7.3	7.8	8.6
4-year-olds	3.4	3.7	4.0	4.5	5.4	6.6	7.3	7.8	8.5
WIC participants	2.8	3.1	3.4	3.8	4.7	5.7	6.3	6.8	7.5
1-year-olds	1.8	2.2	2.4	2.8	3.7	4.8	5.5	6.0	6.8
2-year-olds	2.4	2.8	3.1	3.6	4.5	5.7	6.5	7.0	7.9
3-year-olds	3.1	3.5	3.7	4.2	5.1	6.2	6.8	7.3	8.0
4-year-olds	3.8	4.1	4.3	4.6	5.3	6.0	6.5	6.8	7.3
Income-eligible nonparticipants	2.7	3.1	3.4	3.9	5.0	6.3	7.2	7.8	8.8
1-year-olds	2.1	2.6	2.9	3.5	4.8 *	6.5 *	7.7	8.6	10.0
2-year-olds	2.6	3.0	3.2	3.7	4.6	5.8	6.6	7.1	8.0
3-year-olds	2.7	3.1	3.4	3.8	4.8	6.0	6.8	7.3	8.2
4-year-olds	3.5	3.9	4.2	4.7	5.8	6.9	7.6	8.1	8.9
Higher income nonparticipants	2.8	3.2	3.5	4.0	5.0	6.2	7.0	7.6	8.6
1-year-olds	2.0	2.4	2.6	3.1	4.2	5.6	6.6	7.4	8.7
2-year-olds	2.5	2.9	3.2	3.6	4.6	5.7	6.4	6.8	7.7
3-year-olds	3.7	4.1	4.4	4.9	5.9	7.1	7.8	8.3	9.1
4-year-olds	3.0	3.4	3.7	4.2	5.2	6.5	7.4	8.0	9.0

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

u Indicates individual estimates did not meet the standards of reliability or precision because of large coefficient of variation

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.7. Folate (Micrograms Dietary Folate Equivalent): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	381	(6.6)	902	396	(13.1)	729	389	(11.2)	671	373	(11.4)
1-year-olds	590	314	(12.5)	275	300	(20.6)	143	340	(18.2)	167	320	(17.2)
2-year-olds	701	372	(10.6)	282	378	(23.8)	222	385	(15.3)	193	357	(19.8)
3-year-olds	522	403	(14.1)	186	417	(23.4)	171	414	(28.0)	162	393	(29.2)
4-year-olds	501	436	(15.0)	159	486	(34.5)	193	418	(25.5)	149	421	(22.6)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	99.6	(0.21)	902	99.0	(0.52)	729	99.3	(0.40)	671	99.9	(0.11)
1-year-olds	590	98.6	(0.83)	275	96.4	(2.07)	143	98.1	(1.51)	167	99.8	(0.35)
2-year-olds	701	99.9	(0.16)	282	99.8	(0.24)	222	99.3	(0.56)	193	100.0	(0.04)
3-year-olds	522	99.9	(0.10)	186	99.8	(0.31)	171	99.8	(0.22)	162	100.0	(0.17)
4-year-olds	501	100.0	(0.07)	159	100.0	(0.15)	193	99.9	(0.17)	149	100.0	(0.22)

See notes at end of table.

Table F.7a. Folate (Micrograms Dietary Folate Equivalent): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	217	244	264	296	366	449	500	539	599
1-year-olds	153	179	198	229	298	381	432	470	532
2-year-olds	210	238	258	290	359	438	487	522	578
3-year-olds	215	244	265	302	382	478	540	587	661
4-year-olds	288	313	332	362	424	496	541	574	622
WIC participants	229	258	278	312	382	465	515	552	611
1-year-olds	130	157	177	211	283	370	425	465	531
2-year-olds	203	233	255	290	363	450	504	543	605
3-year-olds	216	251	275	316	401	500	561	605	676
4-year-olds	365 u	388 u	404	429	480	536	569	593	631 u
Income-eligible nonparticipants	197	228	250	287	369	468	531	576	654
1-year-olds	151	181	202	239	320	417	480	526	601
2-year-olds	178	213	236	275	364	471	537	585	663
3-year-olds	206	238	260	299	385	497	569	621	719
4-year-olds	252	280	301	334	404	486	537	572	632
Higher income nonparticipants	240	263	278	305	361	427	468	497	548
1-year-olds	178	201	217	245	303	377	423	458	519
2-year-olds	269 u	287	298	317	353	392	415	430	457
3-year-olds	225	253	272	306	375	461	514	552	617
4-year-olds	286	308	326	353	411	478	519	548	596

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

u Indicates individual estimates did not meet the standards of reliability or precision because of large coefficient of variation

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.8. Niacin (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	14.3	(0.21)	902	14.4	(0.33)	729	15.1	(0.38)	671	13.9	(0.32)
1-year-olds	590	11.8	(0.34)	275	11.0	(0.43)	143	12.3	(0.63)	167	12.3	(0.55)
2-year-olds	701	13.7	(0.32)	282	14.0	(0.64)	222	14.3	(0.56)	193	13.0	(0.55)
3-year-olds	522	15.3	(0.39)	186	15.3	(0.47)	171	16.1	(0.75)	162	15.0	(0.75)
4-year-olds	501	16.5	(0.55)	159	17.0	(0.97)	193	17.5	(1.00)	149	15.4	(0.69)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	99.6	(0.19)	902	99.1	(0.37)	729	99.4	(0.38)	671	99.9	(0.14)
1-year-olds	590	98.6	(0.68)	275	96.7	(1.50)	143	99.2	(1.03)	167	99.6	(0.37)
2-year-olds	701	99.6	(0.33)	282	100.0	(0.07)	222	98.4	(1.15)	193	99.9	(0.44)
3-year-olds	522	100.0	(0.02)	186	99.8	(0.14)	171	100.0	(0.03)	162	100.0	(0.01)
4-year-olds	501	100.0	(0.01)	159	100.0	(0.04)	193	100.0	(0.04)	149	100.0	(0.00)

See notes at end of table.

Table F.8a. Niacin (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	8.6	9.6	10.4	11.5	13.9	16.6	18.2	19.4	21.2
1-year-olds	6.2	7.2	7.9	9.0	11.4	14.0	15.6	16.7	18.5
2-year-olds	7.6	8.6	9.4	10.7	13.2	16.2	17.9	19.2	21.2
3-year-olds	9.4	10.4	11.1	12.3	14.8	17.6	19.3	20.6	22.5
4-year-olds	11.3	12.2	12.9	14.0	16.2	18.6	20.0	21.0	22.5
WIC participants	8.6	9.6	10.3	11.5	14.0	16.7	18.3	19.5	21.3
1-year-olds	5.4	6.4	7.1	8.3	10.6	13.3	14.9	16.0	17.8
2-year-olds	8.7	9.6	10.3	11.4	13.6	16.2	17.7	18.9	20.6
3-year-olds	8.6	9.8	10.6	12.0	14.8	18.0	20.0	21.4	23.5
4-year-olds	11.5	12.6	13.3	14.4	16.7	19.2	20.6	21.7	23.3
Income-eligible nonparticipants	8.9	10.0	10.8	12.0	14.6	17.6	19.3	20.6	22.6
1-year-olds	6.7	7.6	8.3	9.5	11.9	14.6	16.3	17.5	19.5
2-year-olds	6.5	7.9	8.8	10.3	13.6	17.5	19.8	21.4	24.1
3-year-olds	10.6	11.7	12.3	13.5	15.7	18.3	19.8	20.8	22.6
4-year-olds	11.8	12.9	13.7	14.9	17.3	19.9	21.4	22.4	24.0
Higher income nonparticipants	8.8	9.8	10.4	11.4	13.5	16.0	17.4	18.5	20.2
1-year-olds	7.1	8.0	8.6	9.7	11.9	14.5	16.0	17.1	18.9
2-year-olds	7.9	8.9	9.5	10.6	12.7	15.0	16.4	17.4	19.1
3-year-olds	9.3	10.3	11.0	12.1	14.4	17.2	18.9	20.1	22.1
4-year-olds	11.0	11.8	12.4	13.3	15.1	17.2	18.4	19.3	20.7

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.9. Riboflavin (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	1.72	(0.018)	902	1.69	(0.033)	729	1.74	(0.040)	671	1.74	(0.032)
1-year-olds	590	1.73	(0.030)	275	1.68	(0.048)	143	1.84 *	(0.069)	167	1.76	(0.071)
2-year-olds	701	1.70	(0.032)	282	1.72	(0.062)	222	1.67	(0.064)	193	1.72	(0.052)
3-year-olds	522	1.72	(0.040)	186	1.74	(0.070)	171	1.68	(0.084)	162	1.76	(0.073)
4-year-olds	501	1.71	(0.043)	159	1.62	(0.082)	193	1.77	(0.099)	149	1.72	(0.058)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	100.0	(0.01)	902	100.0	(0.01)	729	100.0	(0.01)	671	100.0	(0.02)
1-year-olds	590	100.0	(0.00)	275	100.0	(0.02)	143	100.0	(0.01)	167	100.0	(0.00)
2-year-olds	701	100.0	(0.04)	282	100.0	(0.05)	222	100.0	(0.06)	193	100.0	(0.03)
3-year-olds	522	100.0	(0.00)	186	100.0	(0.00)	171	100.0	(0.00)	162	100.0	(0.00)
4-year-olds	501	100.0	(0.03)	159	100.0	(0.00)	193	100.0	(0.01)	149	100.0	(0.07)

See notes at end of table.

Table F.9a. Riboflavin (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	1.00	1.10	1.20	1.40	1.60	1.90	2.10	2.30	2.50
1-year-olds	1.00	1.20	1.20	1.40	1.70	2.00	2.10	2.30	2.40
2-year-olds	0.90	1.10	1.20	1.30	1.60	1.90	2.10	2.30	2.50
3-year-olds	1.00	1.20	1.20	1.40	1.60	1.90	2.10	2.20	2.40
4-year-olds	1.00	1.10	1.20	1.40	1.60	1.90	2.10	2.20	2.40
WIC participants	1.00	1.10	1.20	1.30	1.60	1.90	2.10	2.20	2.40
1-year-olds	1.00	1.10	1.20	1.30	1.60	1.90	2.10	2.20	2.40
2-year-olds	0.90	1.00	1.10	1.30	1.60	2.00	2.20	2.40	2.60
3-year-olds	1.20	1.30	1.30	1.50	1.70	1.90	2.00	2.10	2.30
4-year-olds	1.00	1.10	1.20	1.30	1.50	1.80	2.00	2.10	2.30
Income-eligible nonparticipants	1.00	1.20	1.20	1.40	1.70	2.00	2.10	2.30	2.50
1-year-olds	1.10	1.20	1.30	1.40	1.80	2.10	2.30	2.50	2.70
2-year-olds	0.90	1.00	1.10	1.30	1.60	1.90	2.10	2.30	2.50
3-year-olds	1.10	1.20	1.20	1.40	1.60	1.90	2.00	2.10	2.30
4-year-olds	1.10	1.20	1.30	1.50	1.70	2.00	2.10	2.20	2.40
Higher income nonparticipants	1.00	1.10	1.20	1.40	1.70	2.00	2.20	2.30	2.50
1-year-olds	1.10	1.20	1.30	1.40	1.70	2.00	2.10	2.30	2.50
2-year-olds	1.00	1.20	1.20	1.40	1.60	1.90	2.10	2.20	2.40
3-year-olds	1.00	1.10	1.20	1.30	1.60	2.00	2.20	2.40	2.70
4-year-olds	1.00	1.10	1.20	1.30	1.60	2.00	2.10	2.30	2.50

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.10. Thiamin (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	1.16	(0.014)	902	1.15	(0.027)	729	1.19	(0.027)	671	1.15	(0.021)
1-year-olds	590	1.03	(0.024)	275	0.97	(0.036)	143	1.15 **	(0.051)	167	1.04	(0.027)
2-year-olds	701	1.13	(0.026)	282	1.14	(0.052)	222	1.14	(0.042)	193	1.13	(0.043)
3-year-olds	522	1.18	(0.025)	186	1.18	(0.041)	171	1.21	(0.056)	162	1.17	(0.049)
4-year-olds	501	1.28	(0.035)	159	1.32	(0.076)	193	1.27	(0.067)	149	1.27	(0.045)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	99.9	(0.06)	902	99.8	(0.13)	729	99.9	(0.10)	671	100.0	(0.09)
1-year-olds	590	99.9	(0.09)	275	99.3	(0.50)	143	99.9	(0.12)	167	100.0	(0.02)
2-year-olds	701	99.8	(0.22)	282	99.8	(0.13)	222	99.5	(0.38)	193	99.9	(0.35)
3-year-olds	522	100.0	(0.01)	186	99.9	(0.12)	171	100.0	(0.05)	162	100.0	(0.00)
4-year-olds	501	100.0	(0.01)	159	100.0	(0.09)	193	100.0	(0.04)	149	100.0	(0.00)

See notes at end of table.

Table F.10a. Thiamin (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	0.70	0.80	0.80	0.90	1.10	1.30	1.40	1.50	1.60
1-year-olds	0.60	0.70	0.70	0.80	1.00	1.10	1.30	1.30	1.50
2-year-olds	0.60	0.70	0.70	0.80	1.00	1.30	1.40	1.60	1.70
3-year-olds	0.70	0.80	0.90	0.90	1.10	1.30	1.40	1.50	1.60
4-year-olds	0.90	1.00	1.00	1.10	1.20	1.40	1.40	1.50	1.60
WIC participants	0.70	0.70	0.80	0.90	1.10	1.30	1.40	1.50	1.60
1-year-olds	0.50	0.60	0.60	0.70	0.90	1.10	1.20	1.30	1.40
2-year-olds	0.60	0.70	0.70	0.80	1.00	1.30	1.40	1.60	1.70
3-year-olds	0.70	0.80	0.80	0.90	1.10	1.30	1.40	1.50	1.70
4-year-olds	0.90	0.90	1.00	1.10	1.30	1.40	1.60	1.60	1.80
Income-eligible nonparticipants	0.70	0.80	0.80	0.90	1.10	1.30	1.50	1.50	1.70
1-year-olds	0.60	0.70	0.80	0.90	1.10 *	1.30	1.40	1.50	1.70
2-year-olds	0.50	0.60	0.70	0.80	1.10	1.30	1.50	1.60	1.80
3-year-olds	0.70	0.80	0.90	0.90	1.10	1.30	1.50	1.50	1.70
4-year-olds	0.90	0.90	1.00	1.10	1.20	1.40	1.50	1.50	1.60
Higher income nonparticipants	0.80	0.80	0.90	0.90	1.10	1.20	1.30	1.40	1.50
1-year-olds	0.70 *	0.70 *	0.80 *	0.80	1.00	1.10	1.20	1.30	1.40
2-year-olds	0.60	0.70	0.80	0.90	1.00	1.30	1.40	1.50	1.70
3-year-olds	0.80	0.80	0.90	1.00	1.10	1.30	1.40	1.40	1.50
4-year-olds	1.00	1.00	1.00	1.10	1.20	1.30	1.40	1.40	1.50

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.11. Calcium (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	957	(13.6)	902	946	(22.1)	729	954	(27.8)	671	987	(21.7)
1-year-olds	590	1,008	(24.0)	275	960	(27.7)	143	1,084	(61.1)	167	1,029	(53.1)
2-year-olds	701	961	(22.8)	282	949	(37.0)	222	946	(47.5)	193	998	(40.8)
3-year-olds	522	942	(32.9)	186	989	(55.9)	171	885	(53.9)	162	973	(44.0)
4-year-olds	501	916	(27.8)	159	888	(49.6)	193	902	(59.1)	149	947	(33.6)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	88.5	(1.11)	902	86.2	(1.66)	729	86.8	(2.65)	671	91.6 *	(1.34)
1-year-olds	590	98.7	(0.65)	275	97.3	(1.19)	143	99.8	(1.24)	167	99.2	(0.50)
2-year-olds	701	95.6	(1.79)	282	93.5	(2.44)	222	93.1	(2.73)	193	98.6	(2.12)
3-year-olds	522	97.6	(1.70)	186	98.1	(1.66)	171	92.7	(4.45)	162	99.5	(1.41)
4-year-olds	501	62.1	(3.64)	159	55.8	(5.81)	193	61.5	(9.12)	149	69.1	(4.68)

See notes at end of table.

Table F.11a. Calcium (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	543	616	669	754	930	1,128	1,247	1,333	1,463
1-year-olds	605	680	733	816	987	1,176	1,286	1,365	1,489
2-year-olds	512	591	649	740	932	1,149	1,277	1,371	1,515
3-year-olds	560	626	674	753	917	1,100	1,210	1,292	1,414
4-year-olds	496	567	621	706	885	1,090	1,214	1,305	1,437
WIC participants	507	584	639	729	914	1,128	1,258	1,352	1,502
1-year-olds	556	633	687	773	942	1,125	1,233	1,309	1,427
2-year-olds	469	555	618	718	919	1,147	1,286	1,385	1,537
3-year-olds	575	646	694	778	951	1,158	1,288	1,381	1,534
4-year-olds	426	503	556	648	845	1,079	1,224	1,331	1,508
Income-eligible nonparticipants	535	610	661	746	924	1,128	1,250	1,336	1,478
1-year-olds	708	780	829	909	1,067	1,238	1,341	1,414	1,526
2-year-olds	464	551	607	701	908	1,149	1,293	1,396	1,562
3-year-olds	462	535	585	671	848	1,061	1,189	1,278	1,437
4-year-olds	509	579	629	709	875	1,065	1,179	1,257	1,388
Higher income nonparticipants	609	679	726	805	964	1,144	1,250	1,324	1,449
1-year-olds	627	701	750	833	1,000	1,195	1,310	1,393	1,536
2-year-olds	603	680	729	813	979	1,162	1,270	1,341	1,467
3-year-olds	639	702	743	815	954	1,112	1,203	1,267	1,372
4-year-olds	566	632	681	759	922	1,108	1,219	1,297	1,426

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.12. Choline (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	208.4	(2.86)	902	214.3	(4.41)	729	214.2	(5.91)	671	201.8	(4.68)
1-year-olds	590	203.0	(4.06)	275	204.6	(6.66)	143	219.2	(12.80)	167	194.3	(8.18)
2-year-olds	701	206.8	(5.16)	282	220.9	(6.39)	222	195.5 *	(9.29)	193	206.5	(8.46)
3-year-olds	522	213.3	(5.81)	186	229.4	(8.69)	171	209.2	(9.36)	162	210.6	(10.45)
4-year-olds	501	210.2	(7.33)	159	202.0	(12.27)	193	233.0	(14.97)	149	195.7	(10.05)
Mean Usual Intake as a Percent of Adequate Intake												
All young children 1–4 years old	2,314	98.9	(1.32)	902	102.1	(2.01)	729	101.3	(2.73)	671	96.0 *	(2.21)
1-year-olds	590	101.5	(2.03)	275	102.3	(3.33)	143	109.6	(6.40)	167	97.2	(4.09)
2-year-olds	701	103.4	(2.58)	282	110.4	(3.20)	222	97.7 *	(4.64)	193	103.2	(4.23)
3-year-olds	522	106.6	(2.90)	186	114.7	(4.34)	171	104.6	(4.68)	162	105.3	(5.22)
4-year-olds	501	84.1	(2.93)	159	80.8	(4.91)	193	93.2	(5.99)	149	78.3	(4.02)

See notes at end of table.

Table F.12a. Choline (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	129.5	143.3	153.3	169.4	202.8	240.8	263.7	280.5	306.2
1-year-olds	122.5	137.0	147.1	163.4	197.5	236.2	259.3	276.0	302.7
2-year-olds	121.7	137.0	148.0	165.4	201.6	242.1	266.1	283.5	310.3
3-year-olds	141.6	154.2	163.4	178.3	208.9	242.7	262.8	277.8	300.1
4-year-olds	132.0	144.8	154.5	170.1	203.2	242.2	266.5	284.6	311.5
WIC participants	136.8	150.9	160.7	176.8	209.2	246.0	268.4	284.5	310.1
1-year-olds	126.9	141.3	151.5	167.8	200.2	236.3	257.7	273.1	297.5
2-year-olds	128.7	145.0	156.9	175.7	214.0	258.5	286.0	305.7	336.6
3-year-olds	149.8	164.3	173.9	190.4	223.7	262.0	285.4	302.1	329.0
4-year-olds	141.6	152.8	160.2	172.8	198.3	226.8	244.0	256.5	276.7
Income-eligible nonparticipants	123.2	139.2	150.2	168.5	207.0	251.6	278.8	298.1	330.1
1-year-olds	111.9	130.0	142.8	164.4	209.9	262.9	296.6	321.4	360.3
2-year-olds	117.9	132.9	142.3	157.9	191.0	228.0	249.5	264.7	288.8
3-year-olds	129.0	143.7	153.4	170.0	203.5	242.3	265.3	281.0	308.9
4-year-olds	133.5	150.0	162.1	181.9	223.8	273.8	304.7	326.4	363.7
Higher income nonparticipants	130.0	143.1	151.9	166.8	197.0	231.5	252.1	266.6	291.2
1-year-olds	122.8	135.8	144.5	159.4	189.1	223.8	244.2	259.2	284.7
2-year-olds	121.7	138.0	148.3	166.3	202.0	241.5	264.9	280.4	307.8
3-year-olds	147.0	158.9	166.6	180.2	206.4	236.7	254.4	267.1	287.5
4-year-olds	128.2	139.3	147.8	161.2	190.0	223.7	244.5	259.4	284.5

Notes: “All young children” includes children with missing WIC participation or income. Adequate intake is the recommended average daily intake level. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.13. Copper (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	0.72	(0.009)	902	0.71	(0.016)	729	0.72	(0.015)	671	0.74	(0.016)
1-year-olds	590	0.66	(0.017)	275	0.64	(0.028)	143	0.70	(0.036)	167	0.68	(0.026)
2-year-olds	701	0.69	(0.012)	282	0.68	(0.023)	222	0.67	(0.023)	193	0.71	(0.023)
3-year-olds	522	0.75	(0.019)	186	0.74	(0.032)	171	0.71	(0.026)	162	0.79	(0.035)
4-year-olds	501	0.78	(0.019)	159	0.77	(0.039)	193	0.79	(0.030)	149	0.78	(0.039)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	99.8	(0.08)	902	99.4	(0.26)	729	99.8	(0.18)	671	99.9	(0.08)
1-year-olds	590	99.4	(0.30)	275	98.0	(1.01)	143	99.8	(0.38)	167	99.8	(0.18)
2-year-olds	701	99.9	(0.17)	282	99.9	(0.10)	222	99.6	(0.57)	193	99.9	(0.27)
3-year-olds	522	100.0	(0.01)	186	100.0	(0.08)	171	99.9	(0.11)	162	100.0	(0.00)
4-year-olds	501	99.9	(0.06)	159	99.7	(0.25)	193	100.0	(0.14)	149	99.9	(0.07)

See notes at end of table.

Table F.13a. Copper (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	0.40	0.40	0.50	0.50	0.60	0.80	0.90	0.90	1.00
1-year-olds	0.30	0.40	0.40	0.50	0.60	0.70	0.80	0.90	1.00
2-year-olds	0.40	0.40	0.40	0.50	0.60	0.80	0.80	0.90	1.00
3-year-olds	0.40	0.50	0.50	0.60	0.70	0.80	0.90	1.00	1.00
4-year-olds	0.50	0.50	0.50	0.60	0.70	0.80	0.90	1.00	1.10
WIC participants	0.40	0.40	0.50	0.50	0.60	0.80	0.90	0.90	1.00
1-year-olds	0.30	0.30	0.40	0.40	0.60	0.70	0.80	0.90	1.00
2-year-olds	0.40	0.40	0.40	0.50	0.60	0.70	0.80	0.90	1.00
3-year-olds	0.40	0.50	0.50	0.60	0.70	0.80	0.90	0.90	1.00
4-year-olds	0.40	0.50	0.50	0.60	0.70	0.80	0.90	1.00	1.10
Income-eligible nonparticipants	0.40	0.40	0.50	0.50	0.60	0.80	0.90	0.90	1.00
1-year-olds	0.30	0.40	0.40	0.50	0.60	0.80	0.90	0.90	1.10
2-year-olds	0.30	0.40	0.40	0.50	0.60	0.70	0.80	0.90	1.10
3-year-olds	0.40	0.40	0.50	0.50	0.60	0.80	0.80	0.90	1.00
4-year-olds	0.50	0.50	0.60	0.60	0.70	0.80	0.90	1.00	1.00
Higher income nonparticipants	0.40	0.50	0.50	0.60	0.70	0.80	0.90	0.90	1.00
1-year-olds	0.30	0.40	0.40 *	0.50 *	0.60	0.70	0.80	0.90	1.00
2-year-olds	0.40	0.40	0.50	0.50	0.60	0.80	0.90	0.90	1.00
3-year-olds	0.50	0.50	0.60	0.60	0.70	0.90	0.90	1.00	1.10
4-year-olds	0.50	0.50	0.50	0.60	0.70	0.80	0.90	1.00	1.10

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.14. Iron (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	10.4	(0.16)	902	10.9	(0.33)	729	10.5	(0.30)	671	10.2	(0.26)
1-year-olds	590	9.5	(0.31)	275	9.2	(0.69)	143	10.1	(0.60)	167	9.8	(0.47)
2-year-olds	701	9.9	(0.28)	282	10.5	(0.55)	222	10.0	(0.45)	193	9.4	(0.55)
3-year-olds	522	10.5	(0.30)	186	11.1	(0.42)	171	10.5	(0.65)	162	10.3	(0.58)
4-year-olds	501	11.7	(0.39)	159	12.7	(0.91)	193	11.4	(0.65)	149	11.5	(0.47)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	99.7	(0.13)	902	99.2	(0.36)	729	99.7	(0.24)	671	99.9	(0.07)
1-year-olds	590	99.0	(0.50)	275	97.0	(1.46)	143	99.6	(0.55)	167	99.6	(0.23)
2-year-olds	701	99.8	(0.17)	282	100.0	(0.07)	222	99.1	(0.76)	193	100.0	(0.18)
3-year-olds	522	100.0	(0.00)	186	100.0	(0.03)	171	100.0	(0.14)	162	100.0	(0.00)
4-year-olds	501	100.0	(0.03)	159	99.9	(0.15)	193	99.9	(0.15)	149	100.0	(0.00)

See notes at end of table.

Table F.14a. Iron (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	5.8	6.5	7.1	8.0	10.0	12.3	13.7	14.8	16.5
1-year-olds	4.1	4.9	5.5	6.6	8.9	11.7	13.5	14.9	17.1
2-year-olds	5.2	6.0	6.6	7.5	9.5	11.8	13.2	14.3	15.9
3-year-olds	6.6	7.3	7.7	8.5	10.2	12.0	13.2	14.0	15.3
4-year-olds	7.2	8.0	8.5	9.4	11.3	13.5	14.9	15.9	17.4
WIC participants	5.8	6.6	7.2	8.2	10.3	12.9	14.5	15.7	17.6
1-year-olds	3.4	4.2	4.9	6.0	8.4	11.5	13.5	15.0	17.6
2-year-olds	5.7	6.5	7.1	8.0	10.0	12.4	13.9	15.0	16.8
3-year-olds	7.1	7.8	8.3	9.1	10.8	12.7	13.8	14.5	15.7
4-year-olds	7.0	8.0	8.6	9.7	12.1	15.0	16.8	18.1	20.4
Income-eligible nonparticipants	5.5	6.3	6.9	7.9	10.0	12.5	14.1	15.2	17.1
1-year-olds	4.8	5.7	6.3	7.3	9.6	12.2	14.0	15.2	17.3
2-year-olds	4.4	5.3	6.0	7.1	9.5	12.3	14.0	15.2	17.2
3-year-olds	5.8	6.5	7.0	8.0	9.9	12.4	13.9	15.0	17.1
4-year-olds	6.9	7.7	8.2	9.1	11.0	13.2	14.5	15.4	16.9
Higher income nonparticipants	6.4	7.0	7.4	8.2	9.8	11.7	12.9	13.8	15.3
1-year-olds	4.5	5.3	5.8	6.8	8.9	11.8	13.6	15.1	17.7
2-year-olds	5.6	6.3	6.7	7.5	9.1	10.9	12.0	12.7	14.1
3-year-olds	7.3	7.9	8.2	8.9	10.1	11.5	12.3	12.8	13.7
4-year-olds	7.9	8.5	9.0	9.7	11.2	12.9	14.0	14.7	15.9

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.15. Magnesium (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	188	(2.0)	902	190	(3.8)	729	188	(3.7)	671	191	(3.8)
1-year-olds	590	173	(2.7)	275	169	(4.7)	143	181	(7.3)	167	174	(4.6)
2-year-olds	701	187	(3.2)	282	188	(5.4)	222	176	(5.8)	193	196	(6.6)
3-year-olds	522	195	(4.3)	186	200	(7.0)	171	192	(7.0)	162	198	(8.4)
4-year-olds	501	199	(5.2)	159	202	(11.4)	193	201	(9.0)	149	195	(9.7)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	99.7	(0.16)	902	99.8	(0.12)	729	99.8	(0.23)	671	99.6	(0.32)
1-year-olds	590	100.0	(0.04)	275	99.8	(0.10)	143	100.0	(0.04)	167	100.0	(0.09)
2-year-olds	701	99.9	(0.07)	282	100.0	(0.06)	222	99.8	(0.22)	193	100.0	(0.12)
3-year-olds	522	100.0	(0.00)	186	100.0	(0.01)	171	100.0	(0.00)	162	100.0	(0.00)
4-year-olds	501	99.0	(0.62)	159	99.6	(0.46)	193	99.5	(0.89)	149	98.4	(1.25)

See notes at end of table.

Table F.15a. Magnesium (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	122	134	143	157	185	216	234	247	267
1-year-olds	113	125	133	146	171	198	213	224	240
2-year-olds	114	128	137	152	183	217	236	251	273
3-year-olds	131	142	151	164	192	222	240	253	272
4-year-olds	131	143	152	166	195	227	246	260	280
WIC participants	123	136	145	159	187	217	236	248	268
1-year-olds	104	117	126	140	167	196	213	224	243
2-year-olds	119	133	142	157	185	217	235	248	268
3-year-olds	131	144	153	167	196	228	248	261	282
4-year-olds	138	150	158	171	198	228	246	259	280
Income-eligible nonparticipants	125	137	145	158	185	214	231	242	261
1-year-olds	125	136	144	156	179	204	218	228	244
2-year-olds	103	116	125	140	171	207	229	244	268
3-year-olds	134	145	152	165	189	216	232	243	261
4-year-olds	139	151	159	173	199	227	243	254	273
Higher income nonparticipants	124	136	145	159	187	218	237	250	272
1-year-olds	116	128	136	149	172	198	212	222	238
2-year-olds	123	137	146	162	192	226	245	258	281
3-year-olds	132	144	152	166	193	225	243	257	279
4-year-olds	125	136	145	159	189	224	246	261	288

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.16. Phosphorus (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	1,031	(11.0)	902	1,027	(18.6)	729	1,034	(22.0)	671	1,047	(18.5)
1-year-olds	590	986	(17.6)	275	948	(24.3)	143	1,042	(46.0)	167	1,002	(36.3)
2-year-olds	701	1,028	(18.5)	282	1,027	(31.1)	222	996	(35.2)	193	1,066	(34.7)
3-year-olds	522	1,052	(26.5)	186	1,083	(40.6)	171	1,025	(41.0)	162	1,072	(45.2)
4-year-olds	501	1,056	(24.2)	159	1,048	(47.6)	193	1,075	(52.5)	149	1,046	(30.2)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	99.9	(0.04)	902	99.9	(0.04)	729	99.9	(0.09)	671	100.0	(0.04)
1-year-olds	590	100.0	(0.03)	275	99.8	(0.11)	143	100.0	(0.01)	167	99.9	(0.09)
2-year-olds	701	99.9	(0.14)	282	99.8	(0.13)	222	99.8	(0.32)	193	100.0	(0.12)
3-year-olds	522	100.0	(0.01)	186	100.0	(0.02)	171	100.0	(0.11)	162	100.0	(0.01)
4-year-olds	501	100.0	(0.04)	159	100.0	(0.02)	193	100.0	(0.10)	149	100.0	(0.07)

See notes at end of table.

Table F.16a. Phosphorus (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	675	741	789	864	1,014	1,178	1,273	1,341	1,444
1-year-olds	660	726	771	840	977	1,121	1,201	1,258	1,345
2-year-olds	624	699	753	837	1,008	1,195	1,304	1,383	1,503
3-year-olds	717	778	822	892	1,035	1,190	1,281	1,349	1,448
4-year-olds	696	762	810	885	1,037	1,204	1,303	1,374	1,476
WIC participants	663	732	780	857	1,009	1,177	1,277	1,348	1,459
1-year-olds	604	673	721	796	938	1,088	1,174	1,233	1,325
2-year-olds	604	684	742	831	1,007	1,201	1,317	1,399	1,524
3-year-olds	739	805	847	920	1,064	1,225	1,322	1,390	1,498
4-year-olds	702	765	807	878	1,025	1,191	1,291	1,365	1,486
Income-eligible nonparticipants	707	771	814	882	1,019	1,170	1,257	1,317	1,415
1-year-olds	834	878	907	953	1,039	1,126	1,177	1,212	1,265
2-year-olds	584	663	713	796	972	1,170	1,285	1,366	1,496
3-year-olds	680	746	789	861	1,005	1,168	1,263	1,327	1,440
4-year-olds	735	802	848	921	1,063	1,215	1,302	1,360	1,455
Higher income nonparticipants	696	764	808	883	1,030	1,193	1,287	1,352	1,461
1-year-olds	654	725	771	847	990	1,147	1,234	1,296	1,397
2-year-olds	695	770	817	897	1,052	1,220	1,317	1,380	1,492
3-year-olds	742	805	845	916	1,053	1,208	1,298	1,362	1,465
4-year-olds	692	753	799	872	1,023	1,194	1,297	1,369	1,487

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.17. Potassium (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	1,885	(20.8)	902	1,947	(40.7)	729	1,896	(37.3)	671	1,848	(34.4)
1-year-olds	590	1,823	(25.4)	275	1,831	(39.4)	143	1,886	(75.1)	167	1,794	(54.8)
2-year-olds	701	1,870	(26.0)	282	1,977	(53.1)	222	1,747 **	(51.2)	193	1,893	(52.2)
3-year-olds	522	1,934	(49.9)	186	1,996	(80.7)	171	1,938	(69.8)	162	1,926	(77.1)
4-year-olds	501	1,911	(55.4)	159	1,979	(124.5)	193	2,014	(95.9)	149	1,776	(85.1)
Mean Usual Intake as a Percent of Adequate Intake												
All young children 1–4 years old	2,314	91.1	(0.98)	902	94.1	(1.89)	729	91.5	(1.77)	671	89.5	(1.64)
1-year-olds	590	91.1	(1.27)	275	91.6	(1.97)	143	94.3	(3.75)	167	89.7	(2.74)
2-year-olds	701	93.5	(1.30)	282	98.9	(2.66)	222	87.4 **	(2.56)	193	94.6	(2.61)
3-year-olds	522	96.7	(2.50)	186	99.8	(4.04)	171	96.9	(3.49)	162	96.3	(3.85)
4-year-olds	501	83.1	(2.41)	159	86.1	(5.41)	193	87.6	(4.17)	149	77.2	(3.70)

See notes at end of table.

Table F.17a. Potassium (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	1,197	1,324	1,416	1,559	1,851	2,170	2,356	2,491	2,691
1-year-olds	1,195	1,321	1,406	1,539	1,803	2,083	2,241	2,351	2,523
2-year-olds	1,142	1,281	1,379	1,531	1,839	2,172	2,364	2,501	2,709
3-year-olds	1,258	1,378	1,465	1,606	1,895	2,213	2,402	2,542	2,749
4-year-olds	1,190	1,317	1,412	1,561	1,867	2,210	2,415	2,564	2,780
WIC participants	1,279	1,406	1,494	1,635	1,914	2,221	2,403	2,532	2,735
1-year-olds	1,175	1,306	1,398	1,540	1,812	2,099	2,264	2,379	2,557
2-year-olds	1,238	1,377	1,477	1,632	1,938	2,280	2,486	2,630	2,853
3-year-olds	1,308	1,437	1,522	1,667	1,954	2,279	2,475	2,613	2,833
4-year-olds	1,391	1,502	1,575	1,699	1,948	2,222	2,384	2,503	2,692
Income-eligible nonparticipants	1,197	1,335	1,427	1,574	1,868	2,186	2,369	2,494	2,695
1-year-olds	1,265	1,390	1,474	1,608	1,868	2,139	2,299	2,411	2,580
2-year-olds	991	1,142	1,236	1,390	1,713 *	2,065	2,267	2,407	2,628
3-year-olds	1,294	1,422	1,505	1,643	1,910	2,205	2,372	2,483	2,677
4-year-olds	1,241	1,389	1,494	1,658	1,982	2,334	2,536	2,672	2,895
Higher income nonparticipants	1,186	1,310	1,393	1,532	1,809	2,122	2,305	2,434	2,650
1-year-olds	1,191	1,312	1,391	1,521	1,770	2,043	2,196	2,305	2,485
2-year-olds	1,229	1,367	1,452	1,596	1,873	2,166	2,334	2,443	2,634
3-year-olds	1,229	1,353	1,434	1,580	1,869	2,212	2,417	2,567	2,812
4-year-olds	1,094	1,207	1,293	1,429	1,721	2,061	2,270	2,418	2,666

Notes: “All young children” includes children with missing WIC participation or income. Adequate intake is the recommended average daily intake level. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.18. Selenium (Micrograms): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	69	(0.8)	902	69	(1.2)	729	70	(1.7)	671	70	(1.4)
1-year-olds	590	63	(1.4)	275	60	(1.7)	143	66	(3.3)	167	64	(3.0)
2-year-olds	701	67	(1.6)	282	67	(2.0)	222	67	(2.3)	193	68	(2.6)
3-year-olds	522	72	(1.5)	186	75	(2.5)	171	70	(3.6)	162	73	(2.6)
4-year-olds	501	75	(1.9)	159	74	(3.2)	193	77	(3.9)	149	74	(2.8)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	100.0	(0.00)	902	100.0	(0.01)	729	100.0	(0.01)	671	100.0	(0.01)
1-year-olds	590	100.0	(0.01)	275	100.0	(0.04)	143	100.0	(0.01)	167	100.0	(0.03)
2-year-olds	701	100.0	(0.00)	282	100.0	(0.00)	222	100.0	(0.01)	193	100.0	(0.01)
3-year-olds	522	100.0	(0.00)	186	100.0	(0.00)	171	100.0	(0.00)	162	100.0	(0.00)
4-year-olds	501	100.0	(0.00)	159	100.0	(0.00)	193	100.0	(0.04)	149	100.0	(0.00)

See notes at end of table.

Table F.18a. Selenium (Micrograms): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	47	51	54	59	68	79	85	89	96
1-year-olds	39	43	46	51	61	73	79	84	91
2-year-olds	44	48	51	56	66	77	83	88	95
3-year-olds	52	56	58	63	71	81	86	90	96
4-year-olds	52	57	60	64	74	85	91	95	102
WIC participants	45	50	53	58	68	79	85	90	97
1-year-olds	38	42	46	50	60	69	75	79	85
2-year-olds	44	48	51	56	66	77	84	88	96
3-year-olds	50	55	58	63	73	85	91	96	103
4-year-olds	49	54	57	62	72	84	91	96	104
Income-eligible nonparticipants	46	50	54	59	69	80	87	92	99
1-year-olds	41	45	49	54	64	76	83	89	97
2-year-olds	44	49	52	56	66	77	83	87	94
3-year-olds	47	52	55	59	69	80	86	90	97
4-year-olds	51	56	59	65	76	89	96	101	109
Higher income nonparticipants	50	54	56	60	69	78	83	87	93
1-year-olds	39	43	47	52	62	74	81	85	94
2-year-olds	44	49	52	57	66	77	84	88	95
3-year-olds	58	61	63	66	72	79	83	85	90
4-year-olds	59	62	64	67	73	80	85	87	92

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.19. Sodium (Milligrams): Mean Usual Intakes From Foods and Beverages for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	2,006	(22.3)	902	2,044	(33.2)	729	2,062	(50.5)	671	1,967	(35.1)
1-year-olds	590	1,621	(42.7)	275	1,563	(50.8)	143	1,767	(106.7)	167	1,622	(78.4)
2-year-olds	701	1,954	(33.5)	282	1,987	(63.1)	222	1,990	(64.8)	193	1,905	(64.9)
3-year-olds	522	2,151	(42.4)	186	2,210	(64.8)	171	2,128	(103.9)	162	2,158	(73.5)
4-year-olds	501	2,288	(57.1)	159	2,402	(82.6)	193	2,355	(120.4)	149	2,174 *	(63.5)
Mean Usual Intake as a Percent of Adequate Intake												
All young children 1–4 years old	2,314	236.4	(2.58)	902	240.4	(3.85)	729	243.0	(5.89)	671	232.3	(4.23)
1-year-olds	590	202.6	(5.33)	275	195.4	(6.36)	143	220.9	(13.34)	167	202.8	(9.80)
2-year-olds	701	244.2	(4.18)	282	248.4	(7.88)	222	248.8	(8.10)	193	238.1	(8.11)
3-year-olds	522	268.9	(5.30)	186	276.3	(8.11)	171	266.0	(12.99)	162	269.8	(9.19)
4-year-olds	501	228.8	(5.71)	159	240.2	(8.26)	193	235.5	(12.04)	149	217.4 *	(6.35)
Percent of Children With Usual Intake Above Chronic Disease Risk Reduction Level												
All young children 1–4 years old	2,314	91.8	(1.12)	902	90.7	(1.30)	729	92.4	(2.70)	671	93.4	(1.36)
1-year-olds	590	76.7	(3.40)	275	72.9	(3.91)	143	84.9	(8.96)	167	77.4	(4.85)
2-year-olds	701	94.0	(2.32)	282	94.0	(2.39)	222	92.5	(3.68)	193	96.0	(2.36)
3-year-olds	522	99.7	(0.44)	186	99.0	(0.91)	171	98.8	(1.57)	162	100.0	(0.17)
4-year-olds	501	96.4	(1.81)	159	96.6	(2.37)	193	93.0	(4.80)	149	99.8	(1.16)

See notes at end of table.

Table F.19a. Sodium (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	1,264	1,398	1,495	1,648	1,963	2,313	2,520	2,670	2,898
1-year-olds	824	965	1,065	1,225	1,565	1,953	2,184	2,350	2,617
2-year-olds	1,165	1,309	1,412	1,574	1,909	2,281	2,501	2,659	2,902
3-year-olds	1,503	1,620	1,704	1,840	2,116	2,418	2,596	2,729	2,925
4-year-olds	1,552	1,687	1,787	1,942	2,253	2,593	2,792	2,935	3,141
WIC participants	1,233	1,381	1,483	1,652	1,992	2,377	2,610	2,776	3,040
1-year-olds	767	905	1,005	1,169	1,505	1,891	2,126	2,296	2,566
2-year-olds	1,162	1,314	1,424	1,596	1,938	2,326	2,560	2,726	2,981
3-year-olds	1,418	1,562	1,657	1,821	2,153	2,536	2,771	2,938	3,207
4-year-olds	1,573	1,730	1,835	2,009	2,360	2,744	2,970	3,134	3,395
Income-eligible nonparticipants	1,223	1,378	1,483	1,655	2,010	2,410	2,647	2,813	3,084
1-year-olds	951	1,097	1,198	1,366	1,713	2,102	2,343	2,517	2,786
2-year-olds	1,111	1,275	1,379	1,553	1,930	2,360	2,614	2,795	3,085
3-year-olds	1,400	1,539	1,629	1,782	2,085	2,430	2,630	2,766	3,005
4-year-olds	1,424	1,596	1,718	1,914	2,305	2,741	2,996	3,169	3,457
Higher income nonparticipants	1,384	1,497	1,571	1,695	1,938	2,209	2,365	2,473	2,655
1-year-olds	847	986	1,079	1,240	1,564	1,945	2,168	2,332	2,609
2-year-olds	1,238	1,373	1,457	1,601	1,880	2,180	2,353	2,466	2,665
3-year-olds	1,678	1,774	1,835	1,940	2,137	2,356	2,480	2,567	2,706
4-year-olds	1,760	1,840	1,898	1,986	2,162	2,347	2,452	2,524	2,640

Notes: “All young children” includes children with missing WIC participation or income. The sodium chronic disease risk reduction is the intake above which intake reduction is expected to reduce chronic disease risk within an apparently healthy population. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements or table salt. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.

Table F.20. Zinc (Milligrams): Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	All Young Children			WIC Participants			Income-Eligible Nonparticipants			Higher Income Nonparticipants		
	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error	Sample Size	Mean	Standard Error
Mean Usual Intake												
All young children 1–4 years old	2,314	7.5	(0.09)	902	7.6	(0.18)	729	7.8	(0.18)	671	7.4	(0.15)
1-year-olds	590	7.1	(0.13)	275	6.5	(0.23)	143	7.6 *	(0.38)	167	7.3 *	(0.22)
2-year-olds	701	7.4	(0.20)	282	7.5	(0.29)	222	7.6	(0.31)	193	7.3	(0.33)
3-year-olds	522	7.7	(0.17)	186	8.0	(0.37)	171	7.7	(0.34)	162	7.6	(0.36)
4-year-olds	501	8.0	(0.22)	159	8.5	(0.51)	193	8.2	(0.41)	149	7.4	(0.30)
Percent of Children With Usual Intake Greater Than Estimated Average Requirements												
All young children 1–4 years old	2,314	100.0	(0.04)	902	100.0	(0.12)	729	99.8	(0.16)	671	100.0	(0.02)
1-year-olds	590	99.9	(0.07)	275	99.9	(0.13)	143	99.9	(0.13)	167	100.0	(0.05)
2-year-olds	701	100.0	(0.07)	282	100.0	(0.04)	222	99.7	(0.32)	193	100.0	(0.05)
3-year-olds	522	100.0	(0.01)	186	100.0	(0.00)	171	99.9	(0.10)	162	100.0	(0.01)
4-year-olds	501	100.0	(0.14)	159	99.9	(0.47)	193	99.9	(0.53)	149	100.0	(0.04)

See notes at end of table.

Table F.20a. Zinc (Milligrams): Percentile Distribution of Mean Usual Intakes for Young Children WIC Participants and Nonparticipants by Age

Mean Usual Intake	5th	10th	15th	25th	50th	75th	85th	90th	95th
All young children 1–4 years old	4.8	5.3	5.7	6.2	7.3	8.6	9.3	9.9	10.7
1-year-olds	4.2	4.7	5.1	5.6	6.8	8.2	9.0	9.5	10.5
2-year-olds	4.5	5.1	5.4	6.0	7.2	8.6	9.4	9.9	10.8
3-year-olds	4.9	5.4	5.7	6.3	7.4	8.8	9.6	10.2	11.1
4-year-olds	5.7	6.1	6.4	6.8	7.8	8.8	9.4	9.9	10.5
WIC participants	5.0	5.4	5.8	6.3	7.4	8.7	9.4	9.9	10.8
1-year-olds	4.0	4.4	4.8	5.3	6.3	7.5	8.2	8.7	9.5
2-year-olds	4.8	5.3	5.6	6.2	7.3	8.5	9.2	9.7	10.4
3-year-olds	5.4	5.9	6.2	6.7	7.8	8.9	9.6	10.1	10.9
4-year-olds	5.6	6.1	6.5	7.1	8.3	9.7	10.5	11.1	12.2
Income-eligible nonparticipants	4.6	5.1	5.5	6.2	7.5	9.1	10.0	10.7	11.7
1-year-olds	4.3	4.9	5.3	5.9	7.3	8.8	9.8	10.5	11.6
2-year-olds	4.0	4.6	5.1	5.8	7.3	9.1	10.2	10.9	12.2
3-year-olds	4.4	5.0	5.3	6.0	7.4	9.1	10.1	10.8	12.1
4-year-olds	5.5	6.0	6.4	6.9	8.0	9.2	9.9	10.4	11.1
Higher income nonparticipants	5.1	5.5	5.8	6.3	7.2	8.3	8.9	9.4	10.1
1-year-olds	4.4	4.9	5.3	5.8	7.0	8.4	9.3	9.9	10.9
2-year-olds	4.9	5.4	5.7	6.2	7.2	8.2	8.8	9.3	10.0
3-year-olds	5.1	5.5	5.8	6.4	7.4	8.6	9.3	9.9	10.7
4-year-olds	6.1	6.3	6.5	6.8	7.3	7.9	8.2	8.5	8.8

Notes: “All young children” includes children with missing WIC participation or income. Estimated average requirement is the average daily nutrient intake level estimated to meet the requirements for half the healthy children in a life stage or gender group. Estimates are based on two dietary recalls per person. The data reflect nutrient intakes from foods and beverages but do not include the contribution of vitamin and mineral supplements. Usual intake was estimated using the National Cancer Institute method. Estimates are weighted to account for differential probabilities of selection, nonresponse to survey instruments, and differences between the final sample and the U.S. civilian noninstitutionalized population to ensure different age distributions of NSLP participants and nonparticipants are accounted for. Significant differences in estimates are noted by * $p < .05$, ** $p < .01$, or *** $p < .001$. Differences were tested using two-sample t -tests comparing WIC participants with income-eligible nonparticipants or higher income nonparticipants. WIC participants consist of children in households that at the time of data collection reported receiving WIC benefits. Standard errors were estimated using balanced repeated replication to account for complex survey design.

Source: National Health And Nutrition Examination Survey (NHANES) 2011–2016 dietary recalls. Sample includes NHANES children 1–4 years old with complete day 1 and day 2 dietary recall data.