Supplemental Table 1. Unweighted number and weighted percentage of participant characteristics among children aged 3-17 years who were included in the analytical sample and those excluded due to missing data on household food insufficiency and current depression or anxiety.

	Analytical dataset for current depression				Analytical dataset for current anxiety			
	Included (n=86,427)[a]		Excluded (n=2,085)		Included (n=86,292)[a]		Excluded (n=2,220)	
	Unweighted N	Weighted %[b]	Unweighted N	Weighted %[b]	Unweighted N	Weighted %[b]	Unweighted N	Weighted %[b]
Child's age, year								
3-5	15057	19.4	345	18.7	15059	19.4	343	18.4
6-11	30216	40.3	690	37.6	30174	40.3	732	39.2
12-17	41154	40.2	1050	43.7	41059	40.3	1145	42.4
Child's sex								
Boys	44579	51.0	1069	53.1	44523	51.1	1125	51.6
Girls	41848	49.0	1016	46.9	41769	48.9	1095	48.4
Child's race/ethnicity								
Non-Hispanic White	60347	51.1	1264	39.7	60223	51.1	1388	40.3
Hispanic	9753	25.1	291	27.8	9746	25.1	298	28.0
Non-Hispanic Black	5304	13.4	229	22.0	5304	13.4	229	21.5
Other	11023	10.4	301	10.5	11019	10.4	305	10.3
Geographical region								
Northeast	21552	21.2	452	17.9	21511	21.2	493	18.7
Midwest	15821	15.9	396	18.7	15788	16.0	429	17.6
South	27328	38.7	714	41.6	27291	38.7	751	40.8
West	21726	24.2	523	21.9	21702	24.2	547	22.9
Child's health insurance type								
Any public	19507	37.7	540	42.8	19462	37.6	585	44.4
Private only	62865	62.3	1204	57.2	62777	62.4	1292	55.6
Missing/uninsured	4055	7.7	341	21.2	4053	7.7	343	19.8
Household poverty, % of federal poverty level								
0-99	7647	17.7	213	19.4	7634	17.7	226	20.3
100-199	14236	24.0	642	34.3	14217	24.0	661	34.6

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200-399	31372	30.8	938	38.5	31321	30.9	989	36.3
≥400	33172	27.5	292	7.7	33120	27.5	344	8.8
Family structure								
2 parents, married	62086	65.5	605	47.2	61977	65.5	714	48.6
2 parents, unmarried	5341	8.2	142	13.0	5340	8.2	143	13.7
Single or other	18433	26.3	419	39.8	18406	26.3	446	37.7
Parental/primary caregiver's mental and emotional health status								
Fair or poor	3564	4.8	85	16.4	3555	4.8	94	14.5
Good	14908	18.0	172	19.3	14865	18.0	215	18.6
Excellent or very good	67033	77.2	742	64.3	66948	77.2	827	66.9

[a]The sample sizes for the analytical dataset for depression (n=86,427) and anxiety (n=86,292) were slightly different due to different levels of missing data in depression and anxiety.

[b]All percentages were calculated with weighted data to reflect the national representative prevalence in the target U.S. population.

Supplemental Table 2. Crude and adjusted odds ratio (95% CI) of current depression and anxiety in association with household food insufficiency and other major risk factors among US children aged 6 to 17 years, National Survey of Children's Health (2016-2018)

Characteristic	Current depression (n=71,370)		Current anxiety (n=71,233)	
	Crude	Adjusted[a]	Crude	Adjusted[a]
Household food insufficiency				
No	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Yes	2.98 (2.39, 3.71)	1.57 (1.20, 2.06)	2.18 (1.81, 2.63)	1.57 (1.28, 1.93)
Child's age, year				
6-11	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
12-17	3.65 (3.02, 4.41)	3.80 (3.15, 4.59)	1.60 (1.44, 1.78)	1.63 (1.47, 1.81)
Child's sex				
Boys	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Girls	1.24 (1.08, 1.43)	1.23 (1.06, 1.43)	1.14 (1.03, 1.26)	1.14 (1.03, 1.27)
Child's race/ethnicity				
Non-Hispanic White	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Hispanic	0.59 (0.48, 0.74)	0.50 (0.40, 0.63)	0.56 (0.48, 0.67)	0.54 (0.45, 0.64)
Non-Hispanic Black	0.99 (0.79, 1.26)	0.59 (0.45, 0.77)	0.47 (0.38, 0.57)	0.34 (0.28, 0.43)
Other	0.77 (0.61, 0.98)	0.71 (0.55, 0.91)	0.56 (0.47, 0.66)	0.52 (0.44, 0.62)
Geographical region				
Northeast	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Midwest	1.32 (1.06, 1.66)	1.17 (0.93, 1.48)	1.10 (0.96, 1.26)	1.00 (0.87, 1.15)
South	1.05 (0.84, 1.32)	1.01 (0.79, 1.28)	0.89 (0.77, 1.02)	0.92 (0.80, 1.06)
West	0.87 (0.67, 1.12)	0.96 (0.74, 1.26)	0.77 (0.66, 0.91)	0.82 (0.70, 0.97)
Child's health insurance type				
Any public	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Private only	0.45 (0.39, 0.52)	0.45 (0.37, 0.54)	0.70 (0.63, 0.78)	0.55 (0.48, 0.64)
Missing/uninsured	0.48 (0.34, 0.66)	0.50 (0.36, 0.71)	0.61 (0.46, 0.80)	0.58 (0.44, 0.78)
Household poverty, % of federal poverty level				
0-99	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
100-199	0.72 (0.57, 0.90)	0.95 (0.75, 1.20)	1.00 (0.83, 1.20)	1.21 (0.99, 1.48)
200-399	0.54 (0.44, 0.66)	1.07 (0.84, 1.35)	1.00 (0.84, 1.18)	1.57 (1.27, 1.95)

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≥400	0.57 (0.46, 0.70)	1.46 (1.11, 1.92)	1.03 (0.87, 1.21)	1.89 (1.51, 2.37)
Family structure				
2 parents, married	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
2 parents, unmarried	1.82 (1.35, 2.45)	1.42 (1.06, 1.92)	1.20 (0.97, 1.49)	1.12 (0.89, 1.39)
Single or other	2.26 (1.95, 2.62)	1.53 (1.28, 1.83)	1.42 (1.28, 1.58)	1.29 (1.13, 1.46)
Parental/primary caregiver's mental and emotional health status				
Fair or poor	1 [Reference]	1 [Reference]	1 [Reference]	1 [Reference]
Good	0.50 (0.40, 0.63)	0.60 (0.47, 0.76)	0.51 (0.41, 0.62)	0.50 (0.41, 0.62)
Excellent or very good	0.15 (0.12, 0.19)	0.20 (0.16, 0.26)	0.20 (0.17, 0.25)	0.21 (0.17, 0.26)

[a]Adjusted for all other variables in the table.

Supplemental Table 3. Sensitivity analysis: Adjusted odds ratio (95% CI) of current depression and anxiety in association with household food insufficiency and other risk factors including child's obesity status[a,b]

	Current depression (n = 49,712)	Current anxiety (n = 49,614)
Household food insufficiency		
No	1 [Reference]	1 [Reference]
Yes	1.44 (1.09, 1.91)	1.38 (1.09, 1.76)
Child's age, year		
10-11	0.38 (0.30, 0.49)	0.78 (0.67, 0.91)
12-17	1 [Reference]	1 [Reference]
Child's sex		
Boys	1 [Reference]	1 [Reference]
Girls	1.41 (1.21, 1.66)	1.34 (1.20, 1.50)
Child's race/ethnicity		
Non-Hispanic White	1 [Reference]	1 [Reference]
Hispanic	0.51 (0.40,0.65)	0.52 (0.43, 0.63)
Non-Hispanic Black	0.53 (0.38, 0.73)	0.29 (0.23, 0.38)
Other	0.63 (0.49, 0.82)	0.48 (0.40, 0.57)
Geographical region		
Northeast	1 [Reference]	1 [Reference]
Midwest	1.18 (0.92, 1.50)	1.04 (0.89, 1.21)
South	1.03 (0.80, 1.32)	0.95 (0.81, 1.11)
West	1.00 (0.76, 1.33)	0.91 (0.75, 1.11)
Child's insurance type		
Any public	1 [Reference]	1 [Reference]
Private only	0.51 (0.41, 0.62)	0.57 (0.49, 0.67)
Missing/uninsured	0.47 (0.33, 0.68)	0.57 (0.40, 0.80)
Household poverty, % of federal poverty level		
0-99	1 [Reference]	1 [Reference]
100-199	1.12 (0.86, 1.47)	1.09 (0.85, 1.39)
200-399	1.27 (0.98, 1.66)	1.38 (1.08, 1.76)
≥400	1.78 (1.30, 2.44)	1.86 (1.43, 2.42)
Family structure		
2 Parents, married	1 [Reference]	1 [Reference]
2 Parents, unmarried	1.28 (0.95, 1.74)	0.91 (0.71, 1.15)
Single or other	1.56 (1.29, 1.88)	1.32 (1.14, 1.53)
Parental/primary caregiver's mental and emotional health status		
Fair or poor	1 [Reference]	1 [Reference]
Good	0.59 (0.45, 0.77)	0.62 (0.49, 0.78)
Excellent or very good	0.21 (0.16, 0.28)	0.26 (0.21, 0.32)
Child's body mass index, kg/m^2		
<18.5	1.04 (0.74, 1.47)	1.00 (0.81, 1.23)
18.5-24.9	1 [Reference]	1 [Reference]
25.0-29.9	1.27 (1.02, 1.59)	1.19 (1.00, 1.41)
≥30.0	1.81 (1.47, 2.22)	1.39 (1.18, 1.64)

[a]Ajusted for all other variables listed in the table.

[b]Restricted to children aged 10-17 years due to data availability of child's body mass index among this age group but not among those younger in the National Survey of Children's Health.

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Supplemental material

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Supplemental Table 4. Age-stratified crude and adjusted odds ratio (95% CI) of current depression and anxiety in association with household food insufficiency among US children aged 3 to 17 years, National Survey of Children's Health (2016-2018)

| | OR (95% CI) of depression | | | | | |
| | 3-11 years | | | 12-17 years | | |
	Crude	**Model 1[a]**	**Model 2[b]**	**Crude**	**Model 1[a]**	**Model 2[b]**
Household food sufficiency	1 [reference]	1 [reference]	1 [reference]	1 [reference]	1 [reference]	1 [reference]
Household food insufficiency	4.24 (2.62, 6.85)	2.46 (1.48, 4.11)	1.78 (1.02, 3.11)	2.59 (2.03, 3.29)	2.02 (1.54, 2.65)	1.47 (1.09, 1.98)
	OR (95% CI) of anxiety					
	3-11 years			12-17 years		
	Crude	Model 1[a]	Model 2[b]	Crude	Model 1[a]	Model 2[b]
Household food sufficiency	1 [reference]	1 [reference]	1 [reference]	1 [reference]	1 [reference]	1 [reference]
Household food insufficiency	2.32 (1.75, 3.07)	2.17 (1.60, 2.94)	1.53 (1.13, 2.06)	1.99 (1.57, 2.51)	2.02 (1.57, 2.60)	1.56 (1.19, 2.02)

[a]Adjusted for child's age, sex, race/ethnicity, geographical region, health insurance type, household poverty status, family structure, and parental/primary caregiver's mental and emotional health status.

[b]Adjusted for all covariates in Model 1 and parental/primary caregiver's mental and emotional health status.

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