



Impact of Health Insurance Type and Adequacy on Child Health, Family Impact, and System of Care Core Outcomes among Children with Special Health Care Needs and Autism Spectrum Disorder

Data from the 2009-10 National Survey of Children with Special Health Care Needs (NS-CSHCN) were used to create these three tables. Unless otherwise indicated, data represent U.S. CSHCN with current autism spectrum disorder (ASD) age 2-17 years. Health insurance adequacy is defined based on whether the child usually or always (1) has current health insurance benefits that meet his/her needs; (2) has uncovered costs that are reasonable; AND (3) has health insurance that enables him/her to see needed providers.

Table 1. Impact of Insurance Type on Child Health, Family Impact and Core Outcomes among CSHCN with ASD

		Private Health Insurance Only	Public Health Insurance Only	Public <u>and</u> Private Health Insurance
Prevalence of Insurance Type, Among CSHCN with ASD age 2-17 years	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	45.9 (42.7 - 49.03) 372,898	33.7 (30.54 - 37.05) 274,230	17.7 (15.13 - 20.53) 143,687
Child Health and Functional Status Measures				
Indicator 1: CSHCN whose health conditions consistently affect their daily activities	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	62.6 (58.6 - 66.49) 233,435	71.7 (66.31 - 76.49) 194,779	77.5 (69.99 - 83.5) 111,250
Indicator 2: CSHCN with 11 or more school absences due to illness, age 5-17 years	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	13.3 (9.95 - 17.54) 43,986	23.7 (18.85 - 29.23) 54,467	14.9 (9.93 - 21.71) 19,711
CSHCN experience four or more functional difficulties (either a little or a lot from list of 14)	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	88.5 (85.86 - 90.76) 330,153	94.0 (91.46 - 95.82) 257,782	95.1 (90.16 - 97.58) 136,575
Family Impact Measures				
Indicator 12: CSHCN whose families paid \$1000 or more out-of-pocket in medical expenses in past 12 months	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	49.3 (45.16 - 53.5) 181,571	15.1 (11.49 - 19.68) 40,713	24.2 (17.98 - 31.71) 34,181
Indicator 13: CSHCN whose health conditions cause financial problems for the family	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	43.4 (39.27 - 47.65) 161,424	39.3 (32.97 - 46.01) 105,559	46.5 (37.84 - 55.29) 66,293
Indicator 14: CSHCN whose families spend 11 or more hours per week providing and/or coordinating child's health care	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	19.8 (16.28 - 23.82) 71,654	40.9 (34.32 - 47.84) 105,101	36.2 (28.2 - 44.95) 49,058
Indicator 15: CSHCN whose conditions cause family members to cut back or stop working	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	50.4 (46.25 - 54.54) 187,687	64.6 (58.75 - 70.12) 175,318	60.9 (51.77 - 69.27) 86,445
Family member(s) avoided changing jobs in order to maintain health insurance for child	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	39.5 (35.47 - 43.69) 147,087	17.3 (13.63 - 21.74) 46,987	34.1 (26.95 - 42.14) 48,786

(1) Wtd %: Estimated percent of specified child population after application of sampling weights; (2) The 95% confidence interval (C.I.) is a range that contains the true population value 95% of the time. A smaller C.I. ranged indicates a more precise estimate; and (3) Estimated number of children in the population after application of sampling weights.

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Maternal and Child Health Bureau System of Care for CSHCN Measures		Private Health Insurance Only	Public Health Insurance Only	Public and Private Health Insurance
Outcome #1: CSHCN whose families are partners in shared decision-making for child's optimal health	Wtd % ¹	56.9	51.9	65.8
	(95% C.I.) ²	(52.69 - 61.02)	(45.57 - 58.24)	(57.4 - 73.24)
	Wtd Pop. Est ³	210,290	141,272	93,647
Outcome #2: CSHCN who receive coordinated, ongoing, comprehensive care within a medical home	Wtd % ¹	25.9	21.7	23.3
	(95% C.I.) ²	(22.5 - 29.51)	(17.56 - 26.6)	(17.12 - 30.82)
	Wtd Pop. Est ³	94,379	57,299	32,343
Outcome #3: CSHCN who have adequate and consistent health insurance coverage	Wtd % ¹	44.2	59.8	52.5
	(95% C.I.) ²	(40.2-48.3)	(53.8-65.4)	(43.8-61.0)
	Wtd Pop. Est ³	163,255	158,977	75,033
Outcome #4: CSHCN who are screened early and continuously for special health care needs	Wtd % ¹	80.1	78.3	81.7
	(95% C.I.) ²	(76.63 - 83.1)	(73.45 - 82.52)	(73.49 - 87.8)
	Wtd Pop. Est ³	298,127	211,006	116,492
Outcome #5: CSHCN who can easily access community based services	Wtd % ¹	45.5	38.9	45.1
	(95% C.I.) ²	(41.4 - 49.62)	(33.29 - 44.85)	(36.51 - 53.95)
	Wtd Pop. Est ³	169,018	105,978	63,517
Outcome #6: CSHCN youth receive services needed for transition to adulthood, age 12-17 years only	Wtd % ¹	22.1	23.8	17.3
	(95% C.I.) ²	(17.52 - 27.46)	(16.52 - 32.99)	(10.25 - 27.72)
	Wtd Pop. Est ³	29,149	18,080	9,434

(1) Wtd %: Estimated percent of specified child population after application of sampling weights; (2) The 95% confidence interval (C.I.) is a range that contains the true population value 95% of the time. A smaller C.I. ranged indicates a more precise estimate; and (3) Estimated number of children in the population after application of sampling weights.

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Table 2. Impact of Insurance Adequacy on Child Health, Family Impact and Core Outcomes among CSHCN with ASD

		Inadequate Health Insurance	Adequate Health Insurance
Prevalence of Insurance Adequacy, Among CSHCN with ASD age 2-17 years	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	46.5 (43.25 - 49.71) 373,389	53.5 (50.29 - 56.75) 430,228
Child Health and Functional Status Measures			
Indicator 1: CSHCN whose health conditions consistently affect their daily activities	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	68.5 (64.25 - 72.47) 255,272	68.1 (63.96 - 71.93) 291,463
Indicator 2: CSHCN with 11 or more school absences due to illness, age 5-17 years	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	20.5 (16.37 - 25.26) 66,751	14.8 (11.83 - 18.46) 56,489
CSHCN experience four or more functional difficulties (either a little or a lot from list of 14)	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	92.6 (90.08 - 94.49) 345,686	90.6 (88.19 - 92.48) 389,562
Family Impact Measures			
Indicator 12: CSHCN whose families paid \$1000 or more out-of-pocket in medical expenses in past 12 months	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	49.9 (45.34 - 54.48) 183,190	18.3 (15.33 - 21.63) 77,466
Indicator 13: CSHCN whose health conditions cause financial problems for the family	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	58.0 (53.56 - 62.38) 214,894	29.4 (24.64 - 34.58) 125,962
Indicator 14: CSHCN whose families spend 11 or more hours per week providing and/or coordinating child's health care	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	33.3 (29.02 - 37.85) 118,622	26.9 (22.09 - 32.23) 110,061
Indicator 15: CSHCN whose conditions cause family members to cut back or stop working	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	63.5 (58.83 - 67.94) 235,304	51.0 (46.34 - 55.63) 218,223
Family member(s) avoided changing jobs in order to maintain health insurance for child	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	38.8 (34.55 - 43.22) 144,004	23.6 (20.16 - 27.44) 101,108
Maternal and Child Health Bureau System of Care for CSHCN Measures*			
Outcome #1: CSHCN whose families are partners in shared decision-making for child's optimal health	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	47.7 (43.19 - 52.29) 177,176	65.5 (60.44 - 70.22) 277,971
Outcome #2: CSHCN who receive coordinated, ongoing, comprehensive care within a medical home	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	14.2 (11.69 - 17.2) 51,371	32.8 (28.83 - 37.09) 137,586
Outcome #4: CSHCN who are screened early and continuously for special health care needs	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	79.8 (76.11 - 83.05) 297,225	78.8 (74.85 - 82.25) 334,597
Outcome #5: CSHCN who can easily access community based services	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	29.4 (25.29 - 33.92) 109,178	56.3 (51.42 - 60.97) 240,052
Outcome #6: CSHCN youth receive services needed for transition to adulthood, age 12-17 years only	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	16.6 (12.07 - 22.34) 18,165	25.4 (20.27 - 31.36) 40,098

(1) Wtd %: Estimated percent of specified child population after application of sampling weights; (2) The 95% confidence interval (C.I.) is a range that contains the true population value 95% of the time. A smaller C.I. ranged indicates a more precise estimate; and (3) Estimated number of children in the population after application of sampling weights.

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Table 3. Impact of Health Insurance Type and Adequacy on Child Health, Family Impact and Core Outcomes among CSHCN with ASD

		Private Health Insurance		Public Health Insurance		Public & Private Health Insurance	
		Adequate Private Health Insurance	Inadequate Private Health Insurance	Adequate Public Health Insurance	Inadequate Public Health Insurance	Adequate Health Insurance	Inadequate Health Insurance
Prevalence of Insurance Type & Adequacy, Among CSHCN with ASD age 2-17 years	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	20.9 (18.67 - 23.27) 167,164	25.3 (22.68 - 28.01) 202,229	22.0 (19.03 - 25.31) 176,252	11.2 (9.53 - 13.12) 89,705	9.5 (7.64 - 11.64) 75,678	8.4 (6.5 - 10.79) 67,248
Child Health and Functional Status Measures							
Indicator 1: CSHCN whose health conditions consistently affect their daily activities	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	59.4 (53.62 - 64.96) 99,323	65.3 (59.65 - 70.58) 131,980	72.2 (65.21 - 78.33) 125,879	68.7 (60.01 - 76.19) 61,277	79.3 (69.49 - 86.56) 59,962	75.6 (63.33 - 84.77) 50,847
Indicator 2: CSHCN with 11 or more school absences due to illness, age 5-17 years	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	8.3 (5.79 - 11.71) 12,580	17.8 (12.26 - 25.07) 31,302	20.2 (14.72 - 27.16) 30,201	31.8 (23.58 - 41.32) 24,266	12.7 (6.94 - 22.2) 8,862	16.8 (9.52 - 28.06) 10,529
CSHCN experience four or more functional difficulties (either a little or a lot from list of 14)	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	85.7 (81.6 - 88.98) 143,224	90.9 (87.04 - 93.72) 183,867	94.4 (91.35 - 96.41) 166,372	92.7 (86.97 - 96) 83,137	92.9 (84.28 - 96.99) 70,324	97.4 (91.41 - 99.24) 65,491
Family Impact Measures							
Indicator 12: CSHCN whose families paid \$1000 or more out-of-pocket in medical expenses in past 12 months	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	30.6 (25.52 - 36.13) 50,406	64.6 (58.82 - 69.97) 129,020	9.0 (5.82 - 13.69) 15,786	24.8 (18.39 - 32.49) 21,735	14.5 (8.12 - 24.41) 10,652	34.7 (24.03 - 47.19) 23,208
Indicator 13: CSHCN whose health conditions cause financial problems for the family	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	23.7 (18.69 - 29.46) 39,505	59.4 (53.61 - 65.01) 119,647	34.1 (25.37 - 43.99) 59,704	51.6 (43.29 - 59.79) 45,590	31.8 (21.59 - 44.04) 23,994	63.2 (50.46 - 74.37) 41,979
Indicator 14: CSHCN whose families spend 11 or more hours per week providing and/or coordinating child's health care	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	10.5 (7.36 - 14.7) 17,182	27.7 (22.18 - 34.04) 53,982	40.1 (31.11 - 49.71) 67,165	41.4 (33.6 - 49.68) 34,451	33.8 (23.34 - 46.04) 23,837	39.2 (27.37 - 52.5) 25,221
Indicator 15: CSHCN whose conditions cause family members to cut back or stop working	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	36.5 (31.18 - 42.16) 60,941	61.8 (55.91 - 67.38) 124,822	62.9 (54.92 - 70.24) 110,178	66.0 (57.35 - 73.63) 57,905	56.6 (45.44 - 67.11) 42,249	65.9 (50.01 - 78.83) 43,876
Family member(s) avoided changing jobs in order to maintain health insurance for child	Wtd % ¹ (95% C.I.) ² Wtd Pop. Est ³	32.0 (26.74 - 37.85) 53,472	46.1 (40.29 - 52.05) 93,128	12.7 (8.94 - 17.78) 22,222	25.4 (18.9 - 33.12) 22,411	32.8 (23.19 - 44.13) 24,783	34.9 (24.66 - 46.75) 23,242

(1) Wtd %: Estimated percent of specified child population after application of sampling weights; (2) The 95% confidence interval (C.I.) is a range that contains the true population value 95% of the time. A smaller C.I. ranged indicates a more precise estimate; and (3) Estimated number of children in the population after application of sampling weights.

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Maternal and Child Health Bureau System of Care for CSHCN Measures*							
		Private Health Insurance		Public Health Insurance		Public & Private Health Insurance	
		Adequate Private Health Insurance	Inadequate Private Health Insurance	Adequate Public Health Insurance	Inadequate Public Health Insurance	Adequate Public & Private Health Insurance	Inadequate Public & Private Health Insurance
Outcome #1: CSHCN whose families are partners in shared decision-making for child's optimal health	Wtd % ¹	68.2	47.3	59.6	39.8	71.6	59.6
	(95% C.I.) ²	(62.34 - 73.47)	(41.47 - 53.19)	(50.35 - 68.27)	(32.13 - 48)	(59.36 - 81.3)	(46.9 - 71.05)
	Wtd Pop. Est ³	112,506	95,092	104,216	35,404	53,357	39,970
Outcome #2: CSHCN who receive coordinated, ongoing, comprehensive care within a medical home	Wtd % ¹	38.6	15.4	27.8	10.2	31.3	14.4
	(95% C.I.) ²	(33.04 - 44.43)	(11.95 - 19.65)	(21.69 - 34.92)	(6.58 - 15.5)	(21.87 - 42.59)	(8.38 - 23.59)
	Wtd Pop. Est ³	63,257	30,472	47,707	8,810	23,056	9,287
Outcome #4: CSHCN who are screened early and continuously for special health care needs	Wtd % ¹	80.0	80.1	79.3	77.3	79.5	84.0
	(95% C.I.) ²	(75.11 - 84.14)	(75.06 - 84.35)	(72.89 - 84.5)	(70.04 - 83.29)	(66.86 - 88.18)	(72.61 - 91.17)
	Wtd Pop. Est ³	133,456	161,860	136,393	68,910	59,416	56,315
Outcome #5: CSHCN who can easily access community based services	Wtd % ¹	64.7	30.3	46.4	26.0	58.8	29.4
	(95% C.I.) ²	(58.84 - 70.07)	(25.23 - 35.79)	(38.32 - 54.75)	(19.38 - 33.97)	(47.37 - 69.42)	(17.08 - 45.69)
	Wtd Pop. Est ³	107,496	61,087	81,270	23,180	43,736	19,339
Outcome #6: CSHCN youth receive services needed for transition to adulthood, age 12-17 years only	Wtd % ¹	27.0	17.4	32.1			
	(95% C.I.) ²	(20.37 - 34.75)	(11.71 - 25.17)	(21.87 - 44.45)	--	--	--
	Wtd Pop. Est ³	17,909	11,051	15,273			

*Outcome 3 was excluded from this table, because it encompasses health insurance adequacy.

--Gray cells indicate that sample sizes are too small to meet standards for reliability or precision.

(1) Wtd %: Estimated percent of specified child population after application of sampling weights; (2) The 95% confidence interval (C.I.) is a range that contains the true population value 95% of the time. A smaller C.I. ranged indicates a more precise estimate; and (3) Estimated number of children in the population after application of sampling weights.

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