



***Summary Comparison of Children
with Chronic Conditions and
Elevated Service Use or Need
(CCCESUN NHIS Variable) and the
CSHCN Screener (MEPS linked)***

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Summary

Comparing Children with Chronic Conditions and Elevated Health Care Needs (CSHCN) (CCCESUN in the NHIS vs CSHCN Screener in MEPS)

Key points to note:

1. There is a similar overall prevalence using CCCESUN NHIS algorithm and CSHCN Screener, but only 53% of those identified using the CCCESUN NHIS variable met the CSHCN Screener (similar prevalence, not the same children).
2. The CCCESUN NHIS variable uses condition reports and reports of specific use of services, confounding its ability to be used to evaluate whether CSHCN are more likely to have certain conditions or use certain amounts (e.g. number of visits) or types of services (specialist care) as the variables are also used in the CCCESUN algorithm (unlike the CSHCN Screener, which is not condition specific nor does it query in detail about specific services used). The rationale for non-condition specific identification is not reflected in the CCCESUN variable.
3. Several versions of the CCCESUN NHIS variable were constructed, compared and reviewed by an expert team. This variable required over 58 items to construct and many options for items to include and scoring were considered. In this way, this variable is not really an alternative to the short CSHCN Screener, which was developed using item reduction methods to predict identification of children with chronic conditions and elevated service need or use. The two variables are very different in these ways.
4. Children identified by the CCCESUN NHIS variable do differ from those identified by the CSHCN Screener in terms of demographic and other characteristics (see Table 1).
5. Conceptually similar qualifying criteria categories were used to categorize those meeting the CCCESUN NHIS variable by similar qualifying criteria as measured by the CSHCN Screener. The distribution across these categories for the CCCESUN NHIS variable differs from the CSHCN Screener.
6. Children meeting the CCCESUN variable but not the CSHCN Screener have a different health condition and condition severity profile; generally reflecting less typically impact and severity (e.g. 9.1% had asthma with episode in the past 12 months vs. 19.1% if they met the CSHCN Screener; more likely to experience ADHD –the CSHCN Screener selects for ADHD with consequences the CCCESUN variable might not, etc.).

Table 1: Comparison of characteristics of children meeting CCCESUN and CSHCN Screener in the linked NHIS and MEPS datafiles.

Characteristics in NHIS	Children who met both MEPS CSHCN Screener and CCCESUN NHIS Algorithm criteria		CCCESUN in NHIS - non-CSHCN in MEPS		Non-CCCESUN in NHIS - CSHCN in MEPS	
	n	%	n	%	n	%
Demographic characteristics						
Age	p=0.08					
0-5 years	55	21.9%	82	33.5%	66	30.6%
6-11 years	98	40.7%	69	38.4%	56	41.0%
12-17 years	84	37.4%	61	28.0%	55	28.4%
Sex	p=0.004					
Male	158	65.7%	108	47.7%	91	45.3%
Female	79	34.3%	104	52.3%	86	54.7%
Race	p=0.08					
Hispanic	57	14.5%	88	24.3%	47	15.0%
White, non-Hispanic	106	63.6%	72	58.4%	67	57.2%
Black, non-Hispanic	51	13.6%	41	13.4%	48	17.1%
Asian, non-Hispanic	3	0.6%	4	0.8%	6	3.7%
Multi/other, Non-Hispanic	20	7.7%	7	3.1%	9	7.0%
Income	p=0.49					
0-99% FPL	61	19.8%	77	25.7%	41	14.5%
100-199% FPL	67	24.3%	52	18.8%	47	28.1%
200-399 FPL	58	27.5%	50	30.3%	52	30.7%
400% or above FPL	51	28.5%	33	25.2%	37	26.8%
Region	p=0.03					
Northeast	51	21.5%	25	11.6%	36	19.8%
Midwest	57	26.7%	50	29.3%	36	25.7%
South	92	39.3%	83	34.3%	68	38.3%
West	37	12.4%	54	24.8%	37	16.2%
Maternal education	p=0.1					
Less than high school	29	9.3%	51	16.0%	28	9.3%
High school or GED	59	24.3%	56	28.9%	48	31.0%
More than high school	127	66.4%	92	55.1%	92	59.7%
Insurance type	p=0.02					
Public insurance	87	64.1%	97	56.0%	107	68.1%
Private insurance	140	64.1%	97	56.0%	107	68.1%
Uninsured	10	3.2%	31	12.1%	11	7.2%
Problems accessing conventional care (delay and unmet care)	p=0.29					
1 or more problem	70	30.1%	78	36.3%	27	15.6%

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