

NATIONAL PROFILE OF COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM) USE FOR CHILDREN WITH EMOTIONAL, MENTAL OR BEHAVIORAL CONDITIONS OR PROBLEMS (2-17 years)

Data Sources:

- The 2007 National Health Interview Survey (NHIS) – Family File, Person File, Sample Child File, Child Complementary and Alternative Medicine File: 9,417 sample children age 0-17 years representing 73.7 million US children and 8,234 sample children age 2-17 years representing 65.6 million US children. NHIS linked to the 2008 Medical Expenditures Panel Survey (MEPS).
- The 2009/10 National Survey of Children with Special Health Care Needs (NS-CSHCN): Interview File: 40,242 sample children with special health care needs (CSHCN) age 0-17 years representing 11.1 million CSHCN nationwide and 38,934 CSHCN age 2-17 years representing 10.7 million US CSHCN.

CAM use definition in the 2007 NHIS includes 39 specific CAM modalities, including vitamins/minerals used to treat specific conditions in past 30 days (Figure 1.2). The CAM modalities were grouped by groupings set forth by NCCAM (due to small sample size energy healing therapy was combined with alternative medical systems) and based on ease of accessibility and need for practitioners.

CAM use in the 2009/10 NS-CSHCN is defined as an affirmative answer to the question, “Alternative health care can include acupuncture, chiropractic care, relaxation therapies, herbal supplements, and others. Some therapies involve seeing a practitioner, while others can be done on your own. [During the past 12 months/Since [his/her] birth], did [sample child] use any type of alternative health care or treatment?”.

Condition groups: The 59 chronic and non-chronic conditions asked about in the 2007 NHIS Sample Child Core were grouped together into clinically relevant groupings including emotional, mental or behavioral conditions (Table 2.3). CAM use prevalence ranged from 16.1% (common acute conditions) to 26.6% (pain-related conditions or problems) across condition groups. The second highest prevalence of CAM use is reported among children with emotional, mental or behavioral (EMB) conditions or problems (26.5%).

DEFINING EMOTIONAL, MENTAL AND BEHAVIORAL CONDITIONS/PROBLEMS

Emotional, mental or behavioral (EMB) health conditions or problems in the National Health Interview Survey:

Six health conditions or problems asked about in the 2007 NHIS were grouped together to identify children with EMB conditions or problems: (a) parent has ever been told by a health professional that child has **Attention Deficit Hyperactivity Disorder (ADHD) or Attention Deficit Disorder (ADD)**, (b) parent told by a health professional that child experienced **depression or phobia/fears** in the past 12 months and/or (c) parent report that child experienced **anxiety/stress, incontinence/bed wetting or insomnia/trouble sleeping** in the past 12 months.

Table A. Population Estimate and Prevalence of EMB Conditions or Problems Reported In Sample Child Core, Age 2-17 Years, Data: 2007 NHIS

Emotional, mental or behavioral conditions or problems	Estimated child population	Weighted %
Anxiety or stress (4-17 years)	4,624,911	8.1
Depression (4-17 years)	1,700,488	3.0
ADD/ADHD (2-17 years)	4,460,823	6.8
Phobia or fears (4-17 years)	1,510,389	2.6
Insomnia/trouble sleeping (3-17 years)	3,174,956	5.2
Incontinence/bed wetting (4-17 years)	1,935,244	3.4

Over **10.8 million** children in the US are estimated to experience at least one EMB condition or problem (as defined above), which represents **16.5%** of children in the 2-17 year age range. Among children experiencing at least one EMB condition or problem, over one third (36.7%) have 2 or more EMB conditions or problems.

Emotional, mental or behavioral (EMB) health conditions or problems in the National Survey of Children with Special Health Care Needs:

Four conditions and two difficulties asked about in the 2009/10 National Survey of Children with Special Health Care Needs CSHCN were used to identify CSHCN with EMB conditions or problems. CSHCN were identified as having EMB conditions or problems if their parent reported that a health professional had ever told them that the child has the condition **and** that the child currently has the condition for (1) depression, (2) anxiety, (3) behavioral or conduct problems and (4) ADD or ADHD and/or the parent report that the child has a lot of difficulty with (5) anxiety or depression or (6) behavioral problems such as acting out, fighting, bullying or arguing.

Table B. Population estimate and Prevalence of EMB Conditions or Problems among CSHCN Age 2-17 Years, Data: 2009/10 NS-CSHCN

Emotional, mental or behavioral conditions or problems	Estimated CSHCN population	Weighted %
Current depression	1,093,937	10.3
Current anxiety	1,812,454	17.1
A lot of difficulty with anxiety or depression	1,589,553	14.8
Current behavioral or conduct problems	1,432,504	13.5
A lot of difficulty with behavior problems	1,770,171	16.4
Current ADD or ADHD	3,187,669	30.2

Over **4.8 million CSHCN** in the US are estimated to experience at least one EMB condition or difficulty (as defined above), which represents **45.2%** of CSHCN in the 2-17 year age range. Among CSHCN experiencing at least one EMB condition or difficulty, 55.8% have 2 or more EMB conditions or difficulties.

PART 1: CAM USE FOR CHILDREN WITH EMOTIONAL, MENTAL OR BEHAVIORAL CONDITIONS OR PROBLEMS

2007 NHIS

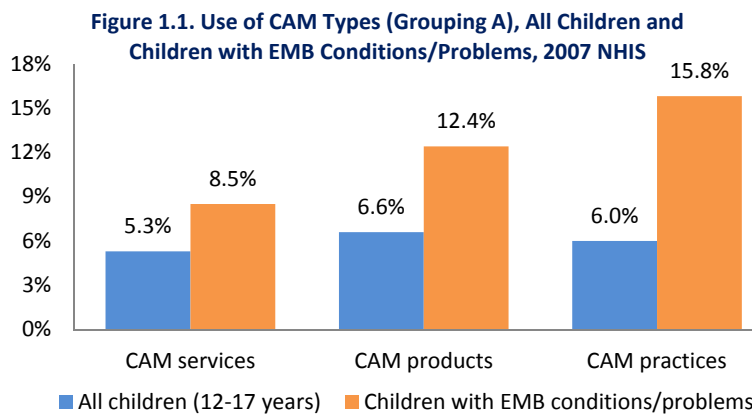
- Of the 16.5% of children age 2-17 years with **at least one** EMB condition or problem, **26.5%** used any type of complementary and alternative medicine (CAM) asked about in the 2007 NHIS Child CAM Supplement (39 types of CAM modalities, including vitamins/minerals used to treat specific conditions in past 30 days).
- Of the 13.5% of children age 2-17 who used at least one type of CAM, 32.2% experienced one or more EMB conditions or problems.

2009/10 NS-CSHCN

- Of the 45.2% of CSHCN age 2-17 years with **at least one** EMB condition or difficulty, **12.5%** used complementary and alternative medicine (CAM).
- Of the 10.7% of CSHCN age 2-17 who used at least one type of CAM, 52.8% experienced one or more EMB conditions or difficulties

TYPES OF CAM MODALITIES USED BY CHILDREN (2007 NHIS)

- Prevalence of CAM practice and product use is higher among children with EMB conditions than all children (Figure 1.1). Over one-quarter (26.6%) of children who used any CAM service, 31.1% who used any CAM product and 43.6% who used any CAM practice experienced at least one EMB condition or problem.

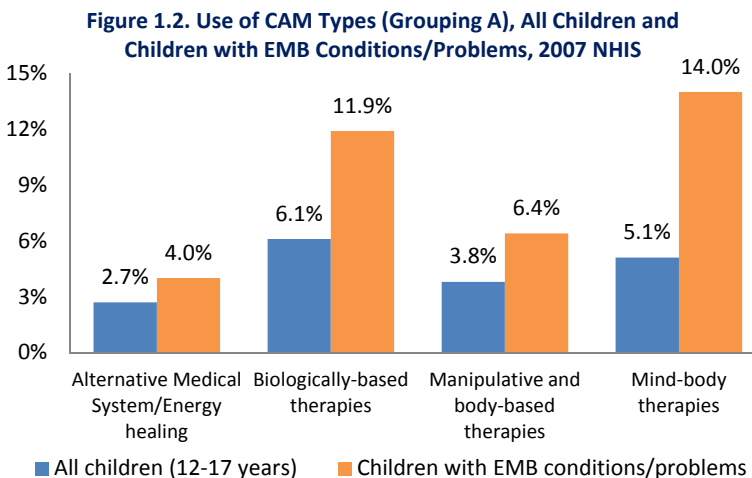


CAM services: acupuncture, Ayurveda, biofeedback, chelation, chiropractic or osteopathic manipulation, energy healing therapy, hypnosis, massage, naturopathy, traditional healers (Curandero, Espiritista, Hierbero or Yerbero, Shaman, Botanica, Native American Healer/Medicine Man, Sobador), movement therapies (Feldenkreis, Alexander technique, Pilates, Trager psychophysical integration)

CAM products: vitamins/minerals used to treat specific conditions in past 30 days, herbal supplements, homeopathy and 7 special diets (Vegetarian, Macrobiotic, Atkins, Pribkin, Omish, Zone, South beach)

CAM practices: Movement therapies (Feldenkreis, Alexander technique, Pilates, Trager psychophysical integration), yoga, tai chi, qi gong, meditation, guided imagery, progressive relaxation, deep breathing exercises, 7 diets, support group meetings, stress management class

- Prevalence of use of mind-body and biologically-based therapies is higher among children with EMB conditions than all children (Figure 1.2). Of the 24.7% children who used any Alternative Medical System or/and energy healing therapy, 32.4% who used any biologically-based therapy, 27.3% who used any manipulative and body-based therapy and 44.9% who used mind-body therapy experienced at least one EMB conditions or problems.



Alternative Medical System/Energy healing therapies: acupuncture, Ayurveda, homeopathic treatment, naturopathy, traditional healers (Curandero, Espiritista, Hierbero or Yerbero, Shaman, Botanica, Native American healer or Medicine man, Sobador) and energy healing

Biologically-based therapies: chelation, herbal supplements, vitamins/minerals used to treat specific conditions in past 30 days, 7 special diets (Vegetarian, Macrobiotic, Atkins, Pribkin, Omish, Zone, South Beach)

Manipulative and body-based therapies: chiropractic or osteopathic manipulation, massage and movement therapies (Feldenkries, Alexander technique, Pilates, Trager psychophysical integration)

Mind-body therapies: biofeedback, meditation, guided imagery, progressive relaxation, deep breathing exercises, hypnosis, yoga, tai chai, qi gong, support group meeting and stress management class

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Table 1.1. Specific CAM Modalities Used, All Children and Children with EMB Conditions/Problem, Data: 2007 NHIS

CAM Modalities	All children who used the CAM modality (2-17 years)		Children with EMB conditions/problems (2-17 years)		
	Pop. est.	W %	Children with EMB condition who used the CAM modality Pop. est.	Among children with EMB condition, % of children who used the CAM modality W %	Among CAM modality users, % of children with EMB condition W %
Vitamins/minerals (past 12 m)	29,727,555	46.1	5,325,240	50.0	17.9
Herbal supplements	2,674,208	4.1	909,872	8.5	34.0
Deep breathing exercises	1,557,534	2.4	917,778	8.6	58.9
Chiropractic or osteopathic manipulation	1,887,240	2.9	452,381	4.2	24.0
Yoga	1,465,961	2.3	394,505	3.7	26.9
Meditation	724,648	1.1	380,069	3.6	52.4
Support group meetings	433,317	0.7	340,347	3.2	78.5
Stress management class	284,753	0.4	255,349	2.4	89.7
Progressive relaxation	329,026	0.5	221,242	2.1	67.2
Massage	651,965	1.0	218,877	2.1	33.6
Special Diets	526,070	0.8	207,523	1.9	39.4
Guided imagery	293,444	0.5	190,712	1.8	65.0
Homeopathy	785,041	1.2	169,893	1.6	21.6
Espiritista	451,553	0.7	117,915	1.1	26.1
Pilates	243,273	0.4	91,741	0.9	37.7
Naturopathy	204,327	0.3	72,789	0.7	35.6
Energy healing	144,183	0.2	59,193	0.6	41.1
Biofeedback	108,063	0.2	54,558	0.5	50.5
Acupuncture	130,405	0.2	52,125	0.5	40.0
Tai Chi	112,633	0.2	48,210	0.5	42.8
Medicine Man	85,037	0.1	41,322	0.4	48.6
Qi Gong	50,419	0.1	41,102	0.4	81.5
Hypnosis	55,342	0.1	34,331	0.3	62.0
Ayurveda	68,161	0.1	30,481	0.3	44.7
Trager Psychophysical Integration	36,940	0.1	22,754	0.2	61.6
Shaman	28,668	0.04	21,540	0.2	75.1
Chelation	55,870	0.1	20,641	0.2	36.9
Hierbero or Yerbera	39,717	0.1	18,166	0.2	45.7
Botanica	34,416	0.1	16,381	0.2	47.6
Sobador	53,383	0.1	11,455	0.1	21.5
Curandera	55,934	0.1	9,417	0.1	16.8
Feldenkreis	27,644	0.04	8,055	0.1	29.1
Alexander Technique	51,897	0.1	8,055	0.1	15.5

Note: Shaded cells do not meet standards of precision (relative standard error – RSE - is greater than 30%)

USE OF MULTIPLE CAM MODALITIES (2007 NHIS)

- Of the 26.5% of children age 2-17 with EMB conditions and who used any type of CAM, 44.4% used 2 or more CAM modalities (Figure 1.3).
- The 34.2% of children age 2-17 who experienced 2 or more EMB issues and used CAM, 54.5% used 2 or more types of CAM.
- The number of CAM modalities increases linearly when number of EMB conditions child experiences increases (Figure 1.4)

Figure 1.3. Number of CAM Modalities Used, All Children and Children with EMB Conditions/Problems, Data: 2007 NHIS

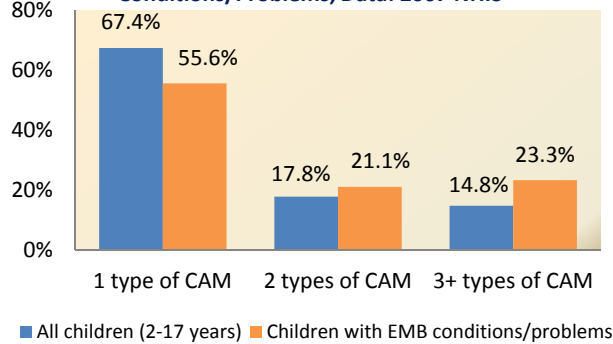


Figure 1.4. Number of CAM Modalities Used, by Number of EMB Conditions Child Experiences, Data: 2007 NHIS

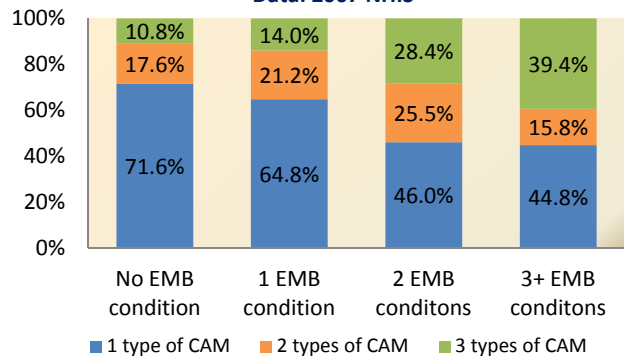


Table 1.2. Most Common Combinations of CAM Modalities Used by Children with EBM Conditions/Problems, Data: 2007 NHIS

1 st Modality	2 nd Modality	Among children who used 1 st modality, % of children who used the 2 nd modality	Among children who used 2 nd modality, % of children who used the 1 st modality
Energy healing therapy	Massage	90.3	24.4
Progressive relaxation	Deep breathing exercises	89.9	21.7
Meditation	Deep breathing exercises	82.6	34.2
Homeopathy	Vitamins/minerals (past 12 m)	82.0	2.6
Guided imagery	Vitamins/minerals (past 12 m)	80.8	2.9
Herbal supplements	Vitamins/minerals (past 12 m)	80.3	13.7
Meditation	Vitamins/minerals (past 12 m)	75.6	5.4
Guided imagery	Deep breathing exercises	72.1	15.0
Stress management class	Support group meetings	71.7	51.5
Chiropractic/Osteopathic manipulation	Vitamins/minerals (past 12 m)	71.1	6.0
Massage	Vitamins/minerals (past 12 m)	66.0	2.7
Progressive relaxation	Vitamins/minerals (past 12 m)	65.9	2.7
Energy healing therapy	Deep breathing exercises	63.3	4.1
Yoga	Vitamins/minerals (past 12 m)	62.4	4.6
Homeopathy	Herbal supplements	59.1	11.0
Guided imagery	Meditation	58.4	29.3
Support group meeting	Deep breathing exercises	54.3	20.1
Stress management class	Deep breathing exercises	51.2	13.7
Guided imagery	Progressive relaxation	48.2	41.6
Progressive relaxation	Meditation	48.0	28.0
Meditation	Herbal supplements	45.9	19.2
Support group meeting	Vitamins/minerals (past 12 m)	45.2	2.8
Yoga	Deep breathing exercises	41.6	17.9

Note: Shaded cells do not meet standards of precision (relative standard error – RSE- is greater than 30%)

PART 2: CHARACTERISTICS OF CHILDREN WITH EMOTIONAL, MENTAL OR BEHAVIORAL CONDITIONS/PROBLEMS

DEMOGRAPHIC CHARACTERISTICS

Table 2.1. Characteristics of All Children and Children with EMB Conditions/Problems, by CAM Use Status, Data: 2007 NHIS

Characteristics	All children (2-17 years)		Children with EMB conditions/problems (2-17 years)			
			All children		CAM ¹ users	Non-CAM users
	Pop. est.	W %	Pop. est.	W %	W %	W %
All children (2-17 years)	65,640,770	100	10,802,708	100	26.5	73.5
Age						
2-5 years	16,722,463	25.5	1,177,312	10.9	11.0	11.0
6-11 years	23,701,978	36.1	4,187,311	38.8	30.7	41.5
12-17 years	25,216,329	38.4	5,438,085	50.3	58.4	47.5
Sex						
Male	33,598,281	51.2	6,316,336	58.5	49.3	61.9
Female	32,042,489	48.8	4,486,372	41.5	50.7	38.1
Race/ethnicity						
Hispanic	13,351,134	20.3	1,604,707	14.9	11.2	15.9
White, non-Hispanic	37,676,370	57.4	7,257,763	67.2	72.4	65.7
African American, non-Hispanic	9,659,099	14.7	1,362,526	12.6	9.4	13.7
Asian, non-Hispanic	2,459,345	3.7	144,906	1.3	1.4	1.3
Multi/Other, non-Hispanic	2,494,312	3.8	432,806	4.0	5.6	3.3
Family income						
0-99% FPL	11,544,881	17.6	1,959,862	18.1	12.3	20.0
100-199% FPL	15,542,447	23.7	2,764,410	25.6	17.9	28.3
200-399% FPL	20,772,914	31.6	3,457,460	32.0	37.6	30.3
400% FPL or above	17,780,528	27.1	2,620,976	24.3	32.1	21.3
Birth place						
Born in US/US territory	62,622,313	95.5	10,500,625	97.2	97.3	97.2
Born outside of US	2,971,554	4.5	302,083	2.8	2.7	2.8
Geographic region						
Northeast	11,228,884	17.1	1,732,136	16.0	18.3	15.0
Midwest	15,522,991	23.6	2,853,048	26.4	26.3	26.7
South	23,938,999	36.5	4,159,348	38.5	28.8	41.9
West	14,949,896	22.8	2,058,176	19.1	26.7	16.3
Mother's education level						
Less than high school	947,2357	15.6	1,222,452	12.5	7.0	14.5
High school diploma or GED	15,173,535	25.0	2,354,254	24.0	17.5	26.5
More than high school	36,142,983	59.5	6,236,734	63.6	75.5	59.0
Type of health insurance						
Public only	17,425,976	26.7	3,169,209	29.3	25.0	30.7
Any private	41,990,783	64.2	6,761,771	62.6	68.7	60.5
Uninsured	5,963,632	9.1	867,228	8.0	6.3	8.8

¹ CAM use includes vitamins/minerals used to treat specific conditions in past 30 days

Note: Shaded cells do not meet standards of precision (relative standard error – RSE- is greater than 30%)

Table 2.2. Characteristics of All CSHCN, CSHCN with EMB Conditions/Difficulties, by CAM Use Status, Data: 2009/10 NS-CSHCN

Characteristics	All CSHCN (2-17 years)		CSHCN with EMB conditions/problems (2-17 years)			
			All CSHCN		CAM users	Non-CAM users
	Pop. est.	W %	Pop. est.	W %	W %	W %
All CSHCN (2-17 years)	10,651,814	100	4,815,694	100	12.5	87.5
Age						
2-5 years	1,858,004	17.4	414,421	8.6	9.1	8.5
6-11 years	4,292,126	40.3	2,016,578	41.9	39.3	42.2
12-17 years	4,501,684	42.3	2,384,695	49.5	51.6	49.2
Sex						
Male	6,331,177	59.5	3,104,775	64.6	59.2	65.3
Female	4,301,014	40.5	1,704,895	35.4	40.8	34.7
Race/ethnicity						
Hispanic	1,779,616	16.7	744,499	15.5	13.6	15.7
White, non-Hispanic	6,337,909	59.5	2,973,443	61.7	68.9	60.7
African American, non-Hispanic	1,694,677	15.9	728,328	15.1	8.6	16.1
Multi/Other, non-Hispanic	839,612	7.9	369,424	7.7	8.9	7.5
Family income						
0-99% FPL	2,334,974	21.9	1,301,553	27.0	17.4	28.4
100-199% FPL	2,324,017	21.8	1,119,541	23.2	19.1	23.9
200-399% FPL	3,047,496	28.6	1,287,684	26.7	32.1	26.0
400% FPL or above	2,945,328	27.7	1,106,916	23.0	31.4	21.8
Geographic region						
Northeast	1,908,707	17.9	859,059	17.8	17.9	17.8
Midwest	2,467,260	23.2	1,139,508	23.7	23.6	23.3
South	4,200,075	39.4	1,957,715	40.7	30.5	42.1
West	2,075,772	19.5	859,413	17.8	25.2	16.8
Mother's education level						
Less than high school	1,167,963	11.0	663,171	13.8	4.9	15.1
High school diploma or GED	2,116,232	19.9	1,042,585	21.6	12.7	22.9
More than high school	7,367,619	69.2	3,109,938	64.6	82.4	62.1
Type of health insurance						
Public only	3,649,160	35.4	1,984,092	42.7	32.0	44.3
Any private	6,272,123	60.9	2,476,929	53.3	64.8	51.7
Uninsured	373,702	3.6	183,220	3.9	3.2	4.1

CO-MORBIDITY OF CHILDREN WITH EMB CONDITIONS OR PROBLEMS (2007 NHIS)

- Nearly 4 in 10 (36.7%) children with EMB conditions or problems also experience at least one other EMB condition or problem.
- Almost all (94.0%) children with EMB conditions or problems experience at least one other non-EMB chronic or non-chronic health condition or problem asked about in the 2007 NHIS.

Table 2.3. Condition Types Reported for Children with EMB Conditions/Problems, Data: 2007 NHIS

Condition Types Reported in Sample Child Core	Children with EMB condition who also experience the condition type	% of children with at least one EMB condition who also experience the condition type	% of children with the condition type who also experience one of EMB conditions
	Pop.est.	W %	W %
Pain-related	3,330,489	30.8	37.8
Gastroenterology	4,879,905	45.2	26.6
Respiratory/pulmonary	5,139,625	47.6	28.0
Common acute	8,768,558	81.2	21.4
Developmental	3,339,738	30.9	53.3
Neurological	2,383,480	22.1	42.9
Sensory	1,089,248	10.1	27.4
Dermatological	3,121,089	28.9	28.3
Other	3,403,933	31.5	36.5

Note: Groups of conditions are not mutually exclusive, children may appear in more than one group

Pain-related: arthritis, migraines, abdominal pain, back or neck pain, non-migraine headache, other chronic pain

Gastroenterology: food or digestive allergy, frequent diarrhea or colitis, acid reflux or heartburn, nausea/vomiting, recurring constipation

Respiratory/Pulmonary: asthma with episode in past 12 months, hay fever, respiratory allergy, other lung or breathing problem, sinusitis, other allergies

Common acute: 3 or more ear infections, fever, head or chest cold, influenza or pneumonia, strep sore throat, other sore throat, urinary tract infection and nausea/vomiting

Developmental: autism, cerebral palsy (interview Q 3 and 4), Down syndrome, muscular dystrophy, mental retardation, speech problem, other developmental delay and learning disability

Neurological: migraines, non-migraine headache, seizure and other neurological problems

Sensory: hearing problem, vision problem

Dermatological: eczema or skin allergy, severe acne, warts, skin problems other than eczema, acne, warts

Other: cancer, congenital heart disease, chickenpox, cystic fibrosis, diabetes, other heart problems, problems with being overweight, menstrual problems, fatigue or lack of energy, gum disease, anemia, sickle cell anemia

Table 2.4. Specific Conditions Reported for Children with EMB Conditions/Problems, Data: 2007 NHIS

Conditions Reported in Sample Child Core	% of children with at least one EMB condition who also experience the condition	% of children with the condition who also experience one of EMB condition
Head or chest cold	65.7	21.5
Sore throat other than strep or tonsillitis	51.6	24.5
Fever	38.9	22.5
Menstrual problems (girls 10-17 years)	32.4	42.9
Learning disability (3-17 years)	26.4	61.4
Nausea and/or vomiting	26.2	34.0
Hay fever	21.2	31.5
Strep throat or tonsillitis	21.0	26.3
Respiratory allergy	19.9	32.0
Sinusitis	14.9	31.0
Abdominal pain	13.3	40.7
Eczema or skin allergy	13.3	24.6
Fatigue or lack of energy	13.3	53.4
Migraine headache (3-17 years)	13.0	42.9
Problems with being overweight	12.6	35.3
Non-migraine headache (3-17 years)	11.5	43.4
Acid reflux or heartburn	11.4	47.6
Other developmental delay	11.2	49.0
Asthma with episode in past 12 months	10.3	30.4
influenza or pneumonia	10.3	26.2
Back or neck pain	10.3	44.5
Other allergies	10.0	30.7
Recurring constipation	9.0	33.0
Warts	8.3	36.8
Severe acne	7.4	38.8
3 or more ear infections	7.3	26.1
Food or digestive allergy	7.0	30.7
Hearing problem	6.1	26.9
Skin problems other than eczema, acne, or warts	5.7	28.5
Other lung and breathing problem	5.5	28.6
Other neurological problems	5.2	61.1
Vision problem	4.7	30.0
Urinary tract infections	4.6	51.7
Other chronic pain	4.1	49.3
Speech problem (3-17 years)	3.6	41.0
Frequent/repeated diarrhea or colitis	3.1	38.0
Autism	2.8	61.7
Other heart condition	2.7	43.6
Mental retardation	2.5	64.2
Anemia	2.3	31.1
Seizures	1.8	36.5
Gum disease	1.2	37.7
Chickenpox	1.1	23.0
Diabetes	0.6	51.4
Congenital heart disease	0.4	24.9
Arthritis	0.3	54.7
Down syndrome	0.3	42.0
Cancer	0.3	49.5
Sickle cell anemia	0.2	18.5
Muscular dystrophy	0.1	88.3

Note: Shaded cells do not meet standards of precision (relative standard error – RSE- is greater than 30%)

PART 3: RELATIONSHIP BETWEEN CAM AND CONVENTIONAL MEDICAL CARE USE

- Children age 2-17 years with EMB conditions or problems who used CAM are more likely to use conventional medical care and experience access problems than children with EMB conditions or problems who DID NOT use CAM.

Table 3.1. Utilization of Conventional Medical Care and Access Problems for Children Age 2-17 with EMB Conditions or Problems, by CAM Use, Data: 2007 NHIS

Conventional Care Use and Access Problems	All children (2-17 years)	Children with EMB conditions/problems		
		All children	CAM users	Non-CAM users
		W %	W %	W %
Number of office visits to health professionals				
0-3 visits	72.3	50.5	34.8	55.8
4-7 visits	19.7	28.6	29.9	28.2
8 or more visits	7.4	20.9	35.3	16.0
Receive medical specialist care				
Yes	13.4	23.9	35.4	19.6
No	86.6	76.1	64.6	80.4
Receive mental health care				
Yes	6.8	30.2	43.6	25.5
No	93.2	69.8	56.4	74.5
Emergency room visit				
1 or more visit	19.3	27.1	32.5	25.3
No ER visit	80.7	72.9	67.5	74.7
Hospitalization				
Yes	2.3	3.3	5.6	2.6
No	97.7	96.7	94.4	97.4
Receive special therapies such as physical therapist, speech therapist, respiratory therapist, audiologist, or occupational therapist due to health issue				
Yes	5.7	12.3	16.8	10.7
No	94.3	87.7	83.2	89.3
Regularly taken prescription medications for at least 3 months				
Yes	13.1	37.3	48.5	33.4
No	86.9	62.7	51.5	66.6
Receive Special Education or Early Intervention Services				
Yes	7.1	21.6	27.4	19.6
No	92.9	78.4	72.6	80.4
Medical care access problem (unmet need¹ or/and care delay²)				
At least one problem	16.5	29.4	36.0	27.3
No	83.5	70.6	64.0	72.7
Unmet need for mental health care due to cost				
Yes	1.1	4.4	7.8	3.2
No	98.9	95.6	92.2	96.8
Medical care delay²				
Yes, 1 or more reasons	9.4	17.0	23.7	14.6
No	90.6	83.0	76.3	85.4

¹ unmet needs for Rx med, medical, mental, dental health care, eyeglasses due to cost

² due to logistics reasons: couldn't get through on the telephone, couldn't get appointment soon enough, wait too long, wasn't open when get there, didn't get transportation

Table 3.2. Utilization of Conventional Medical Care and Access Problems for CSHCN Age 2-17 with EMB Conditions or Difficulties, Data: 2009/10 NS-CSHCN

Conventional Care Use and Access Problems	All CSHCN (2-17 years)	CSHCN with EMB conditions/difficulties		
		All CSHCN	CAM users	Non-CAM users
		W %	W %	W %
Number of services or equipment needed in prior 12 m				
0-3	25.0	18.2	9.6	19.5
4-7	70.3	74.4	76.5	74.0
8 or more	4.7	7.4	13.9	6.5
Needed specialist care				
Yes	46.8	46.2	65.2	43.5
No	53.2	53.8	34.8	56.5
Needed mental health care				
Yes	28.7	54.5	63.5	53.2
No	71.3	45.5	36.5	46.8
Emergency room use				
1 or more visit	39.0	40.1	43.3	39.7
No ER visit	61.0	59.9	56.7	60.3
Have a personal doctor or nurse				
Yes	93.1	91.7	95.3	91.2
No	6.9	8.3	4.7	8.8
Received family-centered care				
Yes	64.4	58.6	55.1	59.1
No	35.6	41.4	44.9	40.9
Have a medical home				
Yes	42.9	35.2	29.9	35.9
No	57.1	64.8	70.1	64.1
Had problems getting needed referrals, CSHCN needing them only				
Yes, had problems	23.7	27.3	33.8	25.9
No, didn't have problems	76.3	72.7	66.2	74.1
Usual source of care when sick				
Yes	90.7	90.4	92.9	90.1
No	9.3	9.6	7.1	9.9
Receive special education services (age 3-17 years)				
Yes	29.6	41.8	47.5	40.9
No	70.4	58.2	52.5	59.1
Had difficulties or delays accessing health services				
Yes	34.2	43.0	58.0	40.8
No	65.8	57.0	42.0	59.2
Unmet need for mental health care, CSHCN needing it only				
Yes	20.5	21.5	28.4	20.3
No	79.5	78.5	71.6	79.7
Unmet need for specialist care, CSHCN needing it only				
Yes	9.3	13.4	19.1	12.2
No	90.7	86.6	80.9	87.8

Table 3.3. Relationship between Use of Specific CAM Modalities and Conventional Medical Care Experience Among Children with EMB Conditions/Problems: Specialist and Mental Health Care, Data: 207 NHIS

CAM modality vs. Specialist care	Among CAM modality users, % of children who received specialist care	Among children who received specialist care, % of children who used the CAM modality
Naturopathy	86.6	2.5
Massage	60.5	5.2
Deep breathing exercises	41.6	15.1
Meditation	41.5	6.2
Stress management class	40.0	3.9
Homeopathy	39.8	2.7
Herbal supplements	36.2	13.0
Support group meeting	35.9	4.8
Yoga	35.3	5.5
Chiropractic/osteopathic manipulation	34.8	6.2
CAM modality vs. Mental health care (MHC)	Among CAM modality users, % of children who received MHC	Among children who received MHC, % of children who used the CAM modality
Support group meeting	86.5	9.1
Stress management class	83.1	6.6
Guided imagery	64.6	3.8
Progressive relaxation	61.9	4.3
Deep breathing exercises	52.4	14.9
Homeopathy	47.9	2.5
Meditation	43.9	5.2
Herbal supplements	42.2	4.1
Chiropractic/osteopathic manipulation	37.6	5.3
Yoga	37.1	4.5
CAM modality vs. Use of prescription medication regularly for at least 3 months (Rx meds)	Among CAM modality users, % of children who take Rx meds	Among children who take Rx meds, % of children who used the CAM modality
Biofeedback	85.0	1.2
Energy healing therapy	78.6	1.2
Stress management class	73.8	4.7
Support group meeting	67.9	5.8
Naturopathy	62.1	1.1
Chiropractic/osteopathic manipulation	55.1	6.3
Yoga	54.9	5.4
Deep breathing exercises	54.0	12.4
Massage	51.7	2.8
Meditation	50.3	4.8
CAM modality vs. Access problem (unmet or/and delay)	Among CAM modality users, % of children who have access problem	Among children who have access problem, % of children who used the CAM modality
Energy healing therapy	70.5	1.3
Stress management class	58.7	4.8
Support group meeting	53.1	5.7
Chiropractic/osteopathic manipulation	44.8	6.4
Massage	42.5	2.9
Deep breathing exercises	37.5	10.9
Meditation	35.4	4.3
Vitamins/minerals in past 12 months	33.5	56.6
Homeopathy	32.5	1.7
Herbal supplements	32.4	9.3

Note: Shaded cells do not meet standards of precision (relative standard error – RSE- is greater than 30%)

- Conventional health care expenditures higher for children with at least one EMB condition/problem than expenditures for all children. The total health care expenditure and out-of-pocket expenditures even higher for children with EMB conditions/problems and used CAM compared to who experience the condition and did not use CAM.

Table 3.4. Adjusted Total Health Care Expenditures for All Children, Children with EMB Conditions or/and Used Any CAM, Data: 2007 NHIS and 2008 MEPS Linked File (n=2411)

All children (2-17 years)	Children with EMB condition (2-17 years)	Any CAM users (2-17 years)	Children with EMB condition who used CAM (2-17 years)	Children with EMB condition who DID NOT use CAM (2-17 years)
Mean (95% CIs)	Mean (95% CIs)	Mean (95% CIs)	Mean (95% CIs)	Mean (95% CIs)
\$1,477 (1,438-1,517)	\$2,423 (2,297-2,549)	\$2,071 (1,974-2,169)	\$3,161 (2,559-3,364)	\$2,168 (2,035-2,302)

* Adjusted for children's age, sex, race/ethnicity, family income, US region child lives

Table 3.5. Adjusted Total Out-of-Pocket Health Care Expenditures for All Children, Children with EMB Conditions or/and Used Any CAM, Data: 2007 NHIS and 2008 MEPS Linked File (n=2411)

All children (2-17 years)	Children with EMB condition (2-17 years)	Any CAM users (2-17 years)	Children with EMB condition who used CAM (2-17 years)	Children with EMB condition who DID NOT use CAM (2-17 years)
Mean (95% CIs)	Mean (95% CIs)	Mean (95% CIs)	Mean (95% CIs)	Mean (95% CIs)
\$326 (309-343)	\$517 (462-572)	\$452 (412-493)	\$637 (556-718)	\$476 (411-540)

* Adjusted for children's age, sex, race/ethnicity, family income, US region child lives