

Cook Children's Health Care System

Community-wide Children's Health Assessment and Survey (CCHAPS)

Technical Appendix

During August 2008 through April 2009, Cook Children's conducted a series of research projects to gather both qualitative and quantitative data from several groups of individuals living in the six-county service region (Denton, Hood, Johnson, Parker, Tarrant and Wise counties). This research included a survey of community leaders, a survey of parents of children ages 0-14 and focus groups with both parents and children. The methodology for this research is outlined below.

Community Leader Survey

During August through December 2008, ETC Institute (Olathe, Kansas) administered a survey of community leaders to help the CCHAPS research team better understand the concerns and issues community leaders have regarding children's health. The two-page survey was administered by mail and phone to a random sample of 602 community leaders living in the six-county region. The community leaders included individuals from city and county governments, public agencies, not-for-profit organizations, faith community, health care providers, independent school districts and other business community leaders. The results for the random sample of 602 community leaders have a 95% level of confidence with a precision of at least +/- 4.0%.

Parent Survey

ETC Institute designed a sampling plan for the parent survey to obtain statistically representative data from parents of children ages 0-14 living in Denton, Hood, Johnson, Parker, Tarrant and Wise counties. Three groups were included: (1) a random sample of parents in the region; (2) parents of Cook Children's patients; and (3) two special population samples. The methodology for each group is described below.

Random Sample. To reduce the length of the survey, two versions of the survey were developed to minimize the burden on respondents to finish the survey in a reasonable amount of time. This helped assure a good response rate. A core set of questions was included on both versions of the survey and questions related to specific children's health issues were then divided between the two surveys. Each version of the survey was seven pages long and it took an average of 25 minutes to complete.

Using a purchased mailing list pre-screened for households with children, a total of 21,530 households with children 0-14 years of age were selected at random to receive a survey. Only one parent per household was selected. Half of the sample received Version One of the survey and the other half of the sample received Version Two. The sample was stratified to ensure that the results for each county, the City of Fort Worth, the City of Arlington, and the City of Denton were statistically valid. This involved the completion of nearly 3,500 surveys in Tarrant County, nearly 1,500 surveys in Denton County, and more than 400 surveys in Hood, Wise, Johnson, and Parker Counties.

The parent survey was administered by a combination of mail, phone, and the Internet. The survey included a cover letter that explained the purpose of the survey and respondents were initially given the option of returning the survey by mail or completing the survey on the Internet. Households that did not respond to the first request were then contacted and given the opportunity to participate by phone. The

goal was to obtain a response rate of at least 33% or 6,600 completed surveys. A total of 7,439 parents completed the survey (response rate 37%); 3,492 completed the survey by mail; 3,612 completed the survey by phone; and 335 completed the survey on the Internet. Surveys were administered in both English and Spanish (a total of 892 surveys were administered in Spanish). The overall results for questions that were included on both versions of the survey for the random sample of parents have a precision of at least +/-1.1% at the 95% level of confidence. The results for questions that were included on just one version of the survey have a precision of at least +/-1.6% at the 95% level of confidence.

The overall survey results were weighted to reflect the actual population of each county. The weighting factors used are shown in the table below.

Weighting Factors 2008-09 CCHAPS - Random Sample							
Area	Number Completed Surveys in Sample	% of Sample	Actual Population	Percent of Actual Population	Weighting Factor (Actual/Sample)	Weighted Distribution	Percent of Weighted Sample
City of Arlington	759	10.20%	371,038	13.44%	1.285	975	13.11%
City of Fort Worth	1,297	17.44%	681,818	24.69%	1.416	1,837	24.69%
Tarrant County (outside FW/Arlington)	1,434	19.28%	697,235	25.25%	1.325	1,900	25.54%
Parker County	780	10.49%	111,776	4.05%	0.403	314	4.23%
City of Denton	331	4.45%	115,506	4.18%	0.937	310	4.17%
Denton County (outside of City of Denton)	1,165	15.66%	521,051	18.87%	1.200	1,398	18.79%
Hood County	460	6.18%	50,573	1.83%	0.293	135	1.81%
Johnson County	725	9.75%	153,630	5.56%	0.572	415	5.57%
Wise County	470	6.32%	58,506	2.12%	0.330	155	2.08%
Unassigned	18	0.24%	NA	0.00%	0.000	-	0.00%
TOTAL:	7,439	100.00%	2,761,133	100.00%	1.000	7,439	100.00%

Patient Sample. ETC Institute also conducted surveys with parents of children ages 0 -14 who had been patients at Cook Children’s Medical Center during the previous year. The purpose of the patient sample was to compile a data set that is identical to the random sample so that statistically valid comparisons can be made between children who have been patients at Cook Children’s and the general population.

A total of 3,000 parents of patients were selected at random to receive the survey. Only one parent per household was selected. Half of the sample received Version 1 of the survey and the other half of the sample received Version 2. The goal was to obtain a response rate of at least 33% or 1,000 completed surveys. The actual number of completed surveys was 1,169 (response rate 39%).

The survey administration procedures for the patient sample were identical to the procedures that were used for the random sample. The survey was initially mailed to each of the 3,000 patient households that were selected for the sample. The survey included a cover letter that explained the purpose of the survey. Respondents were initially given the option of returning the survey by mail or completing the survey on the Internet. Households that did not respond to the first request were then contacted and given the opportunity to participate by phone. Of the 1,169 parents in the patient sample who completed the survey, 612 completed the survey by mail, 527 completed the survey by phone, and 30 completed the survey on the Internet. The overall results for questions that were included on both

versions of the survey for the patient sample have a precision of at least +/-2.8% at the 95% level of confidence. The results for questions that were included on just one version of the survey have a precision of at least +/-4.2% at the 95% level of confidence.

Special Populations. In order to assess the health of children living in families that are traditionally underrepresented in surveys that are conducted by mail and phone, a research team from the Evaluation and Outcomes Division of Mental Health Mental Retardation of Tarrant County (MHMRTC) conducted intercept surveys between October 13, 2008 – January 9, 2009. Face-to-face interviews were conducted at social service centers with homeless and undocumented parents of children ages 0-14 residing in Tarrant and Denton counties.

Survey interviews with the two special populations were conducted primarily in agencies serving homeless, undocumented, or both groups. The surveys were conducted by trained interviewers in a language of common understanding for the respondents and interviews were between 10-25 minutes in length. Following the interview participants received a \$15 cash stipend as compensation for their time and effort. However, compensation was not mentioned to participants until the interview was completed.

A total of 348 surveys were conducted with parents of these two special populations. The overall results for the sample have a precision of +/-5.1% at the 95% level of confidence. The number of surveys administered to the special populations is outlined below.

Number of Surveys Administered to Special Populations			
	Survey Version 1	Survey Version 2	Total
Homeless	87	78	165
Undocumented	98	85	183
Total:	185	163	348

(Note: The original goal was to conduct a total of 200 interviews with homeless parents and 200 with undocumented parents residing in Tarrant, Denton, Hood, Johnson, Parker and Wise counties. The researchers found that relatively few services for these populations were available outside of Tarrant and Denton counties and ultimately interviews were limited to these two areas. Also, in December 2008 word of an INS raid that spread quickly through the community had a significant impact on the researchers’ ability to complete the anticipated number of interviews with undocumented parents within the designated time frame.)

Opportunities to interview undocumented and homeless parents were provided by local social service organizations (see table below). Letters were mailed to key individuals at local agencies seeking the agency’s assistance in recruiting participants and follow-up telephone contacts were made. In addition, two Tarrant County Homeless Coalition monthly meetings were attended to advertise the survey and its purpose to members.

Preliminary meetings were held at participating agencies to discuss the purpose of the survey and work out the logistics of the data collection process (how participants would be informed of the survey opportunity, times interviewers would be present, etc.). Most agencies set specific times when interviews could be conducted, advertised the survey with flyers, and provided office space for interviewers. Agency staff assisted interviewers in determining which participants met the eligibility requirements for the survey. Interviews were also conducted at flea markets and other public places

frequently by undocumented persons, and a limited number of interviews were conducted in respondents' homes.

Referral Sources for Special Population Interviews	
Location	Number of Surveys
Northside Inter-Church Agency, Inc. (NICA)	89
Presbyterian Night Shelter – Lowdon Schutts Women’s Building	35
Union Gospel Mission	35
Safe Haven of Tarrant County (Fort Worth)	27
Safe Haven of Tarrant County (Arlington)	24
Salvation Army (Fort Worth)	17
First Street Methodist Mission	14
Community Solutions—Former Clients and Referrals	14
Arlington Life Shelter	11
Multipurpose Center	11
Volunteers of America LIGHT Program of Fort Worth	7
Cumberland Presbyterian Children’s Home (Denton County)	6
All Church Home	3
MHMRTC	2
Presbyterian Night Shelter	1
Other Referral Source	52
Total:	348

National and State Data Comparisons. The CCHAPS parent survey instruments contained a total of 28 questions that corresponded to the National Survey of Children's Health (NSCH) administered by The Data Resource Center for Child and Adolescent Health (DRC). The NSCH survey was administered in 2007 and 2008 to a random sample of 91,642 parents of children between the ages of 0-17 living in the United States. A total of 1,805 surveys were administered to parents in Texas.

Comparisons were made between NSCH national and state results and CCHAPS findings for Dental Care (2 questions), Mental Health (10 questions), Safety/Community (5 questions), Health Insurance (2 questions), Access to Care (4 questions), Family Activity (2 questions) and Parent Profile (3 questions). The “don't know” responses were excluded from the CCHAPS data to facilitate valid comparisons with the data from the NSCH survey.

Focus Groups

Parent Focus Groups. During the week of March 30th to April 3rd 2009, ETC Institute conducted 10 focus groups with parents and guardians from Tarrant County who had completed the parent survey. The purpose of the focus groups was to help clarify a list of priorities identified by Cook Children’s from the survey and to identify specific steps that Cook Children’s Health Care System should make to address these issues. The focus group sessions were designed to gather detailed feedback about the following issues:

1. Child Safety
2. Child Abuse
3. Child Fitness and Nutrition
4. Mental Health
5. Dental Health
6. Access to Medical Care
7. Education/Information

Parents were selected at random from a sample of residents living in Tarrant County who: (1) had completed the regional children’s health needs assessment survey; and (2) had at least one child living in their household between the ages of 3 and 14-years-old.

A total of 117 parents, 9-14 participants per group, attended each focus group session. The sessions were 90 minutes long and were moderated by a representative from ETC Institute. Parents were divided into different focus group sessions based upon the age or grade level of their child as follows:

Adult Focus Group Divisions			
Number of Groups	Parents of Children:	Number of Groups	Parents of Children:
2	Ages 3-5	2	In Grades 4-6
2	In Grades K-1	2	In Grades 7-9
2	In Grades 2-3		

Child Focus Groups. Trained Child Life specialists from Cook Children’s Medical Center, administered focus groups with children of parents who participated in the random household survey during the week of March 30-April 3, 2009. The purpose of the focus groups was to provide additional insight and/or understanding about different health topics in the parent survey from the child’s perspective.

Participants were the children of parents who were selected at random from a sample of residents living in Tarrant County who: (1) had completed the regional children’s health needs assessment survey; and (2) had at least one child living in their household between the ages of 3 and 14-years-old.

A total of 121 children, ages 3-17 participated. Children were divided into different focus group sessions based upon their age or grade level (see table below).

Child Focus Group Divisions							
Group Session	Grades	Number of Children		Group Session	Grades	Number of Children	
March 30, 5 p.m.	Grades K-1	10		April 1, 11:30 a.m.	Ages 3-5	13	
	Grades 2-3	1			April 1, 5 p.m.	Pre-K	1
	Grades 4-6	1				Grades 2-3	2
March 30, 7 p.m.	Pre-K	1		Grades 4-6		10	
	Grades K-1	2		Grades 7-9	1		
	Grades 2-3	8		April 1, 7 p.m.	Grades 2-3	4	
Grades 4-6	5	Grades 4-6			5		
March 31, 11:30 a.m.	Ages 3-5	10		April 2, 5 p.m.	Grades K-1	2	
March 31, 5 p.m.	Pre-K	1			Grades 2-3	2	
	Grades 2-3	2			Grades 4-6	8	
	Grades 4-6	10		April 2, 7 p.m.	Grades 4-6	3	
Grades 7-9	1	Grades 7-9			6		
March 31, 7 p.m.	Grades 4-6	4		Total:		121	
	Grades 7-9	8					

The sessions were 60-90 minutes long and were moderated by Cook Children’s Child Life specialists. As part of the CCHAPS research team, Cook Children’s Child Life specialists used their expertise to develop age-appropriate questions, create an environment conducive to gathering data from children, facilitate the focus groups and interpret the responses. Because children process differently than adults, they have distinct needs that vary widely among different age groups. While a 12-year old can discuss healthy and unhealthy food choices verbally, a younger child may need to identify the foods they eat with pictures or toys. Child Life specialists expertly guided these focus groups with children to collect the most accurate information.

Each focus group session was divided into five time segments according to topics, and a team of two Child Life specialists facilitated discussion about the questions related to each specific topic:

- Healthy lifestyles (nutrition, sleep, etc.)
- Safety and community surroundings
- Dental care and access to medical care
- Family activities/interactions
- Mental/emotional health and school issues

Depending on the topic and the age of the children, questions were asked using one or more of the following methods:

- Discussion format
- Discussion format using photographs (i.e., illustrating children of different ages in car seats or different community locations)
- Discussion format using props (i.e., toothbrushes)
- Game format using props (i.e., “Wheel of Fortune”, a soccer ball, etc.)
- Activity format (i.e., asking children to draw pictures of healthy foods, circle pictures of places they went with their families, etc.)

The “don’t know” responses from the survey data of parents were excluded to allow for valid comparisons with the results from the focus groups with children. The focus group data excludes any participants who did not provide a response or were unable to comprehend the question.

Research Limitations

Although the sampling and completeness goals for each survey were met or exceeded, the survey database does have limitations. The limitations listed below are intended to provide guidance to persons who will use data from this survey to conduct analysis in the future. The list is not all inclusive, and anyone using the database should consider other limitations that are common to databases that are obtained from random or stratified random sampling.

Survey Only Provides the Parent’s Perspective. Given the nature of the survey and the size of the service area surveyed, one of the only possible methods to obtain the information needed was to survey parents or guardians of children versus the children directly. Due to this fact, there may be some bias in the reporting of parents or guardians on certain issues to display themselves in a more positive light or even in their actual knowledge of their child’s behavior.

Survey Data is Only Descriptive. The CCHAPS survey results do not indicate a cause-and-effect relationship between two variables; the results may show a relationship between two variables but because not all the variables in the study were controlled, assumptions should not be made about “causality.”

Comparisons of Parent Survey Data Findings and Child Focus Group Finding Are Context Only, Not Statistical Validation. There was a much smaller sample of parents (n=107) and children (n=121) who participated in the focus groups compared to the sample size of the parent survey (n=7,439). For this reason, the findings from the focus groups are not meant to be a statistically valid comparison but to serve as additional qualitative insight into the parent survey findings. Also, children present a wide range of emotional, physical, social, and cognitive developmental ranges and abilities and therefore all research with children must consider the potential impact of these developmental issues on measurement. Children’s perspectives can vary greatly from those of adults. For example, children may be fearful in environments that adults perceive to be completely safe. Or children may perceive time differently, believing that fewer (or more) minutes have passed than has actually occurred. Limitations of focus group methodology in general may also affect data quality.

Limits of the Precision in Granularity. The sampling plan for the parent survey was designed to gather statistically representative data from certain segments of the populations such as from parents of children ages 0-14 living in Denton, Hood, Johnson, Parker, Tarrant and Wise counties. However, the data does not provide a statistically representative sample at certain sub-regional levels such as by zip code. For this reason, performing any analysis at the sub-regional level must be done with caution.