



School, Community, Growth

Connecticut State Department of Education

Health Services Program Information Survey

Final Report

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Developed for:

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Executive Summary

Background and Methodology:

The Connecticut State Department of Education, as part of its ongoing efforts to support and expand school health services provided to Connecticut students, has completed the second year of data collection regarding school health services. The data collection process is designed to assist the Department of Education to gain an understanding of the status of school health services in Connecticut school districts, the needs of school districts and students in the area of school health services and progress being made in these areas over time. As one component of these ongoing efforts, the Connecticut State Department of Education commissioned EDUCATION CONNECTION to develop an online survey to collect information regarding the status of school health services from school districts throughout Connecticut.

Based on the results of the 2003-2004 survey administration, the online survey was adapted prior to administration during 2004-2005. The Connecticut State Department of Education and the Connecticut State Health Records Committee assisted Dr. Newsom-Stewart of EDUCATION CONNECTION to adapt the survey to meet the needs of school districts and the Connecticut State Department of Education.

The online survey, instructions for completion, and the final report for the 2003-2004 administration were posted to the EDUCATION CONNECTION website to increase ease of completion by respondents. The Coordinator of School Nursing in each Connecticut school district, or the equivalent, was asked to complete the online survey.

Questionnaire results were analyzed statistically using the Statistical Package for the Social Sciences (SPSS). Numerical totals, frequencies and means were obtained on all data as appropriate.

Profile of Districts Who Participated in the Data Collection Process:

A total of one hundred sixty-nine (169) questionnaires were distributed with one hundred and twelve (112) received in time to be analyzed, yielding a response rate of sixty-six percent (66%).

Respondents were approximately equally distributed across ERGs. The majority of respondents (95%) were public school districts, with an additional 2% being charter schools and approximately 4% of respondents working for a Regional Educational Service Center (RESC). The majority of respondents provided services to public schools (91%) and 41% provided services to private, non-public schools.

School Health Services Conclusions and Recommendations:

Overall, Connecticut school district staff appear to have a positive perception of the status of health services in Connecticut school districts. Survey respondents were generally positive, as indicated by the quantitative questionnaire results and the number of comments on the survey questionnaire. Data resulting from the second year of survey administration were examined by the Connecticut State Department of Education and EDUCATION CONNECTION staff and indicate the following:

- In responding school districts, over 2% of students are provided voluntary mental health screening. Of these students, 36% are referred to mental health providers. Similarly, over 1,500 students were provided voluntary dental screening. Of these, 21.1% were referred to dental health providers.
- The majority of nursing staff in participating districts are funded by the Boards of Education.
- In responding school districts, nurse-to-student ratios decrease as grade levels increase. Additionally, survey respondents commented on the need for the Connecticut State Department of Education to set recommended nurse-to-student ratios.

- Over one quarter (27%) of responding districts have less than one FTE registered nurse available in each public school and 62% of districts have less than one FTE registered nurse available in each private school.
- Connecticut school districts are caring for children with a wide range of physical, developmental, behavioral and emotional conditions. The most common conditions reported were asthma, latex and food allergies, speech defects, ADHD/ADD, developmental delays and other behavioral/emotional conditions. It can be expected that the high incidence of these conditions among Connecticut students will increase the responsibilities of school nursing staff. Additionally, it can be expected that these conditions may impact the academic performance of affected children.
- The majority (93%) of respondents reported that 76-100% of students that receive a nursing intervention return to the classroom within one half hour. It is expected that, once the condition prompting the child to seek a nursing intervention is addressed, the child will be better able to learn upon returning to the classroom. However, there is currently little empirical data to support this hypothesis.
- Five percent of districts reported that 26-75% of students did not have health insurance. It can be expected that these students may have a number of health issues that are not addressed as a result of the lack of health insurance.
- Districts provided a wide range of suggestions for services to increase district satisfaction with provision of health services to students. District suggestions include fiscal resources, information on available resources, non-fiscal resources, communication with state agencies and training for staff.

Future Data Collection Conclusions and Recommendations:

A number of specific recommendations for the Connecticut State Department of Education regarding future data collection efforts were also developed and are specified within the report.

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Introduction

EDUCATION CONNECTION submits this report to the Connecticut State Department of Education in fulfillment of the task to collect survey data to assist the State Department of Education to identify the status of school health services in Connecticut. Survey results will be used to monitor the characteristics of, and trends in, school health services in Connecticut school districts at the elementary, middle/junior high school and senior high school levels. Data was collected through the administration of the Health Services Program Information Survey. Funding for this project was provided by the Connecticut State Department of Education. This report summarizes the results of data collection for the 2005-2006 school year. This is the third year for which data was collected.

Theoretical Framework

The theoretical framework followed in the planning and implementation of the data collection process includes the concepts of participatory evaluation, systems thinking and a constructivist theory of learning.

Review of the Literature

A summary of national literature regarding the importance of school health services and student health to student academic performance was provided in the 2003-2004 report and will not be repeated here. The concepts outlined in this review of the literature were used to guide and focus data collection efforts and include the following:

Academic Performance and Health

- Nutrition
- Physical Health
- Mental Health
- Vision Care
- Oral Health
- Absenteeism Rates
- Access to Health Care and Coverage

Status of School Health Services

- Staffing
- Medication Administration
- Computer Software Available
- Role of School Health Services
- Guidelines and Ratios
- Health Care Provision in School Districts
- Effectiveness of School Health Services

Status of Student Health

- Alcohol & Drug Use
- Injury & Violence (including suicide)
- Nutrition
- Physical Activity
- Sexual Behaviors
- Tobacco Use
- Emerging Issues:
 - Food safety
 - Asthma
 - Skin Cancer
 - Terrorism
 - Type I Diabetes
 - Type II Diabetes
 - Dental Disease

Data Collection Process

Survey Development

All survey development processes were described in the 2003-2004 report and will not be repeated here. Based on results of the 2004-2005 survey administration, minor changes were made in the number and type of survey questions to maximize the ability of the survey to meet the needs of Connecticut school districts. All changes were implemented in close partnership, and with the final approval of, Dr. Cheryl

Resha, Health Promotion Consultant for the Connecticut State Department of Education and in collaboration with Connecticut's State Health Services Advisory Committee.

The survey collected data in the following areas:

- Types and results of services provided in Connecticut school districts
- Staff of health services in Connecticut school districts
 - Numbers of staff
 - Sources of funding for health services staff
 - Nurse/Student ratios
 - Determinants of staffing patterns
 - Qualifications of staff
 - Specialists linked to nursing services
- Numbers of students with specific health care needs by grade level
- Types of health care procedures performed by health services staff
- Percentage of students without health insurance
- Numbers or and reasons for 911 calls
- Availability and satisfaction with health coordination and education activities
- Involvement of health services staff with health coordination and education activities
- Satisfaction of health services staff with health services provided in the district
- Teaching techniques used by health services staff when teaching health topics
- Software available to support health service data collection
- Demographic information including:
 - Educational Reference Group (ERG)
 - Type of District
 - Rural/Urban/Suburban
 - Private/Public/Regional Educational Service Center
 - Types of schools to which the district provides health services
 - Name and identification of district
 - Name of survey respondent

Reliability and validity of the survey were discussed in previous reports and are not repeated here. Reliability was maximized through a comprehensive pilot testing process and through the development of questions following generally accepted standards. Survey validity is primarily determined through the use of a survey development process that collects data on all relevant key concepts and is generally assessed non-statistically by a panel of experts. This survey was developed in close partnership with a panel of experts from the Health Service Advisory Committee. It is expected that the questionnaire is sufficiently valid and reliable.

Survey Administration

The survey was posted to the EDUCATION CONNECTION website to increase ease of completion. Survey directions, sources of data necessary for survey completion, and results of the two previous survey administrations were also available for downloading on the EDUCATION CONNECTION website.

Prior to survey administration, the State Department of Education invited each Coordinator of School Health Services in Connecticut to attend an introductory meeting on the School Health Service Program Questionnaire. The Connecticut State Department of Education Consultant, Dr. Cheryl Resha, introduced participants to the purpose and history of the survey and shared the survey with the group online. Dr. Resha answered questions concerning the practicalities of survey completion, state expectations for survey completion and expected use of data.

The State Department of Education mailed a letter of intent to each Superintendent of Schools in Connecticut informing that individual that the Coordinator of School Health Services in the district, or the equivalent, would shortly be receiving a letter requesting that they complete the survey. The Coordinator of School Health Services received a letter directing him or her to the EDUCATION CONNECTION website for survey completion.

The Connecticut State Department of Education and EDUCATION CONNECTION responded to questions and concerns regarding the survey as they arose. A total of 169 questionnaires were distributed. One hundred and six were received in time to be analyzed yielding a response rate of 63%.

Data Analysis Methodology

Survey results were analyzed using the Statistical Package for the Social Sciences (SPSS). The total number of individuals, frequencies and means were obtained as appropriate.

Results

The response totals, frequencies or mean response, as appropriate, are listed below. Respondents who answered “Don’t Know/Need More Info.” were not included in the analysis.

Services Provided in Connecticut School Districts

Table 1: Students Receiving Services as Percent of Total

Note: For the table below, percentages are calculated ONLY for districts for which all data is available. Therefore, the total number of students reported by the districts varies by category and is dependent upon whether other data necessary to calculate percentages was provided. The total number of students reported by the 106 districts who responded to the survey was 372,325 students.

	Total Number of Students Reported by Participating Districts	Total Number of Students Receiving Service Reported by Participating Districts	Percent Receiving Service	Number of Students Referred to Outside Provider as a Result of Screening	Percent of Students Receiving Service Referred to Outside Provider as a Result of Screening
<i>Optional Services</i>					
Body Mass Index Screening	351,421	17,308	4.9%	157	0.9%
Pediculosis	328,493	61,934	18.9%	2,280	3.7%
Nutrition Screening	348,209	4,334	1.2%	492	11.4%
Mental Health Consultation	341,613	5,072	1.5%	1,678	33.1%
Dental Screening	342,290	44,454	13.0%	7,181	16.2%
Total:		133,102		11,788	
<i>Mandatory Services</i>					
Vision	368,218			25,096	6.8%
Scoliosis	367,772			4,528	1.2%
Hearing	368,218			5,073	1.4%
Mandated Health Assessments	343,073			18,518	5.4%
Total:				53,215	

The number of students provided optional services was relatively small compared to the total number of students in participating districts, suggesting that many districts may not have optional services. However, the fact that these services were voluntarily provided to 133,102 Connecticut students, and that 11,788 of these students were referred to outside providers as a result, highlights the need for these services in Connecticut schools.

As a result of mandatory screenings in the responding districts, 53,215 Connecticut students were referred to outside providers for further assistance.

Staffing of Health Services in Connecticut School Districts

I. Nursing Staff:

Table 2: Numbers and Funding Sources of Staff

	Total Number of Staff in Participating Districts (FTE)	Percent Funded by Board of Health	Percent Funded by Board of Education	Percent Funded by Public Health/VNA
Nurse Leaders	80.0	12.5%	76.2%	11.3%
School Nurses	721.7	22.8	69.2	8.0
Nurse Practitioners	23.0	21.7	52.2	26.1
Permanent Float Nurses	15.1	13.2	80.1	6.6
One-to-One Nurses	28.8	3.5	88.9	7.7
Contracted Nursing Staff	29.5	3.4	76.3	20.3
Licensed Practical Nurses	41.5	2.4	97.7	0.0
Nurse Aides	87.0	30.9	46.2	22.9
Nursing Support Staff	38.5	24.3	73.1	2.6

Connecticut school districts employ registered nurses funded through a variety of sources. The majority of nursing staff are funded by the Board of Education.

II. Additional Staff:

District Medical Advisor:

Of the 106 responding districts, 94 (92.2%) received services from a medical adviser 0-10 hours per month. Four districts (3.9%) received these 11-20 hours of services per month, and four districts received 21 to more than 40 hours of these services per month.

Eighty-five percent of district medical advisers were funded by the Board of Education, 6% by the Board of Health, 1% by Public Health or Visiting Nurses Association (VNA) funding, 2% through grant funding and 6% through other funding sources.

The district medical advisers serving Connecticut school districts specialize in the following areas:

Adolescent Health	26%	Pediatrics	63%
Family Medicine	30%	Public Health	8%
General Medicine	18%	Sports Medicine	5%
Internal Medicine	7%	Other	6%
Orthopedics	1%		

Note: Medical advisers can have more than one specialty area. Therefore, numbers do not total 100%.

District Dental Services:

The majority (79%) of responding districts did not provide dental services to their students. Of the districts that did provide these services, 47% used a dentist and 53% used a dental hygienist to provide these services. Of the districts providing dental services, funding sources are listed below:

**Table 3: Funding Sources for District Dental Services
Percent Response**

Funding Source	Percent
Board of Education	25.0%
Board of Health	20.0
Public Health/VNA	0.0
Grant	30.0
Other	25.0

III. Staffing Levels:

In 84% of responding districts, there was an individual designated as nurse leader who is a nurse.

In the responding districts, there were a total of 976 Full-Time Equivalent (FTE) registered nurses and 155 FTE nursing support staff.

Staffing by Grade Level and School:

**Table 4: Nurse-to-Student Ratio
Percent Respondents**

	One nurse to 250-500 students	One nurse to 501-750 students	One nurse to more than 750 students
Elementary nurse-to-student ratio in district	64.9%	30.9%	34.1%
Secondary nurse-to-student ratio in district	24.4	41.1	34.4

The majority of Connecticut schools meet national guidelines that suggest a school district have a nurse-to-student ratio no greater than one nurse to 750 students. However, 34% of Connecticut schools do not meet this guideline at both the elementary and secondary levels.

**Table 5: Full Time Nurses by School
Percent Respondents**

	<1 FTE	1 FTE	>1-2 FTE	>2 FTE
RNs in each public school	21.6%	63.9%	13.4%	1.0%
RNs in each private school	61.5	33.8	3.1	1.5
LPNs in each school	81.8	4.5	4.5	9.1

The majority of Connecticut school districts have at least one full-time registered nurse in each public school. However, almost three quarters of districts have fewer than one registered nurse in each private school. Approximately eighty percent of districts do not have at least one full time LPN in each school.

**Table 6: Importance of Variables in Determining Staffing Patterns
Frequencies and Means**

<i>How important are each of the following in determining staffing patterns in your district?</i>	Very Unimportant	Unimportant	Neither Unimportant nor Important	Important	Very Important	Mean
Budget	5.8%	.0%	4.9%	20.4%	68.9%	4.5
Needs of students	7.8	.0	5.9	24.5	61.8	4.3
District understanding of service needs	5.9	1.0	11.8	31.4	50.0	4.2
Availability of qualified staff	7.8	3.9	7.8	34.3	46.1	4.1

District coordinators perceived budget to be the most important determinant of staffing patterns in the districts. However, all other items were also considered important or very important to staffing patterns.

IV. Staff Qualifications:

Connecticut school districts employ nurses with a wide range of qualifications. A summary of nurse qualifications is below.

**Table 7: Qualifications of District Nurses
Total Number of Staff**

	Total Number of Staff
Diploma Registered Nurses	193
Registered Nurses with AD/AS degree	143
Registered Nurses with BS in Nursing	388
Registered Nurses with another Bachelor's degree	48
Registered Nurses with MS in Nursing	37
Registered Nurses with MPH	6
Registered Nurses with MA in Education	10
Registered Nurses with another Master's degree	20
Registered Nurses with a doctoral degree	1
Registered Nurses with another degree	0
Registered Nurses with a national certification in School Nursing	53
Registered Nurses with a national certification in any OTHER nursing field	22

The majority of district nurses have a BS in Nursing, are Diploma Registered Nurses or are Registered Nurses with an AD/AS degree. However, districts also report having registered nursing staff with a variety of other degrees including MS in Nursing, MA in Education, or other Master's or Bachelor's degree. Some districts have registered nurses with national certifications in school nursing and other nursing fields.

**Table 8: Qualifications of Nurse Leaders
Percent Response**

	Diploma Registered Nurse	AD	Other Associates Degree	BS in Nursing	Other Bachelor's degree	MS in Nursing	MPH
Nurse Leader 1	18.2%	10.2%	.0%	39.8%	10.2%	15.9%	5.7%
Nurse Leader 2	37.5	.0	.0	37.5	.0	25.0	.0

Districts reported the qualifications of each nurse leader in their district. Districts with more than one nurse leader reported additional qualifications under nurse leader 2 above. The majority of districts reported nurse leaders having a BS in Nursing, a Diploma Registered Nurse or an MS in Nursing.

**Table 9: Additional Specialists Employed by Districts
Percent Response**

	Yes
Nutritionist	10.6%
Mental Health Consultant	44.8
Psychiatrist	22.7
Assistive Technology Specialist	41.6
Other	33.8

Connecticut districts also employed additional specialists to address student health needs. The most commonly reported specialists employed by districts were mental health consultants or assistive technology specialists.

Student Health in Connecticut School Districts

Districts provided data on a wide range of topics related to student health. Tables summarizing their responses are provided below. It should be noted that the per item response rate to this section was lower than that of the overall survey, ranging from 69 to 99 respondents per item.

I. Student Health Care Needs:

Table 10: Number of Students with Specific Health Care Needs By Grade Level

	K-5	6-8	9-12	Total
Bee Sting Allergy	934	616	1076	2626
Food Allergy (Life Threatening)	3269	1069	1228	5566
Latex/Environmental Allergy	6036	2791	2707	11534
Arthritis	323	116	169	608
Asthma	21742	10919	12570	45231
Autism Spectrum Disorders	1537	430	342	2309
Hemophilia	255	139	101	495
Sickle Cell Trait	290	107	131	528
Other Blood Dyscrasias	462	161	342	965
Cancer	148	80	94	322
Cardiac Conditions	821	417	504	1742
Developmental Delays	3480	1331	1050	5861
Diabetes Type I	610	256	362	1228
Diabetes Type II	243	97	131	471
Migraine Headaches	1253	997	1066	3316
Cerebral Palsy	409	207	203	819
Spina Bifida	85	30	94	209
Seizure Disorder	1118	540	644	2302
Speech Defects	6036	950	728	7714
Severe Vision Impairment	708	400	408	1516
Severe Hearing Impairment	991	491	481	1963
Other Health Impairment	2076	1125	1270	4471
Oral Health Needs	5350	3246	1925	10521
Neurological Impairment	935	369	486	1790
Orthopedic Impairment	680	495	517	1692
ADHD/ADD	5172	3939	4030	13141
Depression	605	865	2271	3741
Eating Disorders	219	375	500	1094
Other Behavioral/Emotional Conditions	2819	3120	2266	8205

Connecticut school nurses provide services to students with a wide range of physical and emotional health needs. The most prevalent conditions reported included Asthma, latex/environmental and food allergies, developmental delays, ADHD/ADD and other behavioral/emotional conditions.

Nurse's Time in Connecticut School Districts:

I. Allocation of Nurses' Time in Connecticut School Districts

Coordinators of School Nursing reported a range of activities school nurses engaged in during the school day. Tables summarizing their responses are below.

**Table 11: Percent of Nurses' Time Spent on Specific Health Interventions
Percent of Districts**

	Nurses Do Not Spend Time on This Activity	1-30%	31-70%	71-100%
Routine Nursing Intervention	.0%	2.0%	44.2%	53.8%
Referral to health care provider	1.0%	95.2	2.9	1.0
Daily medication administration	1.0%	91.4	4.8	2.9
As needed medication administration	1.0%	88.3	6.8	3.8
Performing special health care procedures	1.9%	90.4	7.7	0.0
Monitor health care needs	1.9%	65.4	23.0	9.6
Case management	6.7%	79.7	7.7	5.8

The majority of Connecticut school nurses' daily work time is spent on routine nursing interventions. However, districts also report a large amount of time spent on a other activities including case management, special health care procedures, medication administration, monitoring health care needs and referral to health care providers.

**Table 12: Types of Procedures Performed by Connecticut School Nurses
Percent Response**

	Districts Performing This Procedure
Gastrostomy Tube Feedings	51.0%
Nasogastric Tube Feedings	2.0
Suctioning	29.4
Tracheostomy Care	21.4
Nebulizer Treatments	94.2
Blood Sugar Testing	92.3
Insulin Pump Management	80.6
Catheterizations	41.7
Ventilator Care	6.8
IV Therapy	8.8
Ostomy Care	24.2
Oxygen Therapy	27.5
Other Treatment	67.3

The majority of districts reported that school nurses performed a number of specific procedures during the school day. Over eighty percent of districts performed nebulizer treatments, blood sugar testing and insulin pump management.

II. Impact of Nursing Interventions

**Table 13: Percentage of Students Returned to Classroom
Percent Response**

Percentage of Students Returned Within One Half Hour	Percent Response
0-25%	0%
26-50%	0
51-75%	8.7
76-100%	91.3

Over ninety percent of respondents reported that 76-100% of students were returned to the classroom within one half of receiving a nursing intervention.

Other Factors Impacting Student Health:

**Table 14: Percentage of Students Without Health Insurance
Percent Response**

Percent of Students Without Health Insurance	Percent of Districts Reporting
0-25%	88.0%
26-50%	6.7
51-75%	1.3
76-100%	4.0

The majority of districts reported that 0-25% of their students did not carry health insurance.

**Table 15: Number of 911 Calls Per Year
Percent Response**

Number of 911 Calls Per Year	Percent Response
0-10	66.3%
11-20	17.3%
21-30	5.8%
31-40	1.9%
41-50	1.9%
>51 and <100	4.8%
More than 100	1.9%

Thirty four percent of districts report eleven or more 911 calls per year. Almost two percent (1.9%) reported more than one hundred calls/year.

Respondents identified the most common reason for 911 calls to be injuries, followed by other reasons, anaphylaxis and seizure.

Respondents reported the number of children with life threatening food allergies that required the administration of epinephrine during the last school year. The majority (65.3%) reported that no children required the administration of epinephrine. 27.5% reported that 1 to 3 children required administration of epinephrine and 7% reported more than 3 children required epinephrine.

Health Coordination/Education

Connecticut school nurses and their districts are involved in a variety of health coordination and educational activities.

**Table 16: Frequency of Provision of Health Care Management Services
Percent Response**

<i>My district provides the following student health care management services:</i>	Never	Sometimes	Always
Development of Individual Healthcare Plan	1.0%	34.0%	65.0%
Development of Individual Emergency Plan	1.0	20.4	78.6
Development of 504 Plan	1.9	47.1	51.0
Staff Training to Meet Individual Student Health Needs	.0	23.8	76.2

The majority of districts report that health care management services are always provided. However, the number of districts that report services “sometimes” being provided ranges from 20% to 47%, suggesting that approximately one-third of Connecticut districts may be providing services on an inconsistent basis.

**Table 17: Satisfaction with Quality of Health Care Management Services
Percent Response**

<i>I am satisfied with the quality of health care management services provided by my district:</i>	Disagree	Neutral	Agree
Development of Individual Healthcare Plan	7.0%	27.0%	66.0%
Development of Individual Emergency Plan	5.1	11.1	83.8
Development of 504 Plan	8.1	29.3	62.6
Staff Training to Meet Individual Student Health Needs	6.1	24.2	69.7

The majority of respondents are satisfied with the quality of each health care management service provided by their district. However, between five and eight percent of respondents are not satisfied with the quality of the healthcare management services provided.

**Table 18: Involvement of School Health Staff in Health Coordination/Education
Percent Response**

	Yes	No	District Does Not Provide
Bloodborne Pathogen Exposure Plan	98.1%	1.9%	.0%
Staff Wellness Programs	60.6	16.2	23.2
School-based Outreach to Enroll Students in HUSKY	63.3	24.5	12.2
Staff Education to Meet Health Program Needs	90.5	5.3	4.2
Indoor Air Quality Program	77.1	16.7	6.3
Maintenance of Health Room and Equipment	93.3	5.8	1.0
School Safety/Crisis Plan	96.0	3.0	1.0
PPT Process	97.1	2.9	.0
Child Abuse Reporting and Prevention	100.0	.0	.0
504 Coordination	86.0	14.0	.0

The majority of districts report that school health staff are involved in the majority of health coordination and education activities. However, it is notable that a number of districts report that school health staff are not involved in staff wellness programs, school-based outreach to enroll students in HUSKY, indoor air quality programs and 504 Coordination.

**Table 19: Existence of Specific Programs
Percent Response**

<i>My district has:</i>	No	Yes
School Health Teams	26.0%	74.0%
Automatic External Defibrillator Program	37.3	62.7

The majority of districts have a school health team. Over sixty percent have an Automatic External Defibrillator program in place.

**Table 20: District Software Use
Percent Response**

Computer Software	Percent Response
None	23.8%
SNAP	32.7
Health Master	5.9
Other district-wide student data program	37.6

The use of District Wide Software is varied throughout the state. Almost one third of districts use SNAP, while over one third use another district wide-student data program. 24% of districts report not using any student data program.

**Table 21: District Needs
Percent Response**

<i>To increase my satisfaction with services provided in my district, I would need:</i>	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree	Mean
Fiscal resources	1.0%	1.9%	10.7%	46.6%	39.8%	4.22
Training for staff	1.0	12.6	18.4	46.6	21.4	3.75
Non-fiscal resources	.0	4.0	35.4	44.4	16.2	3.73
Improved communication within the district	1.0	13.5	24.0	35.6	26.0	3.72
Information on available resources	.0	8.7	28.2	46.6	16.5	3.71
On-site consultation for staff	.0	18.4	25.2	38.8	17.5	3.55
Improved communication with state agencies	.0	15.5	34.0	37.9	12.6	3.48

The highest number of respondents perceived fiscal resources and training for staff as important to increase satisfaction with services provided. Improved communication with state agencies was the item least frequently perceived as important by respondents. However, the mean response of 3.48 is greater than neutral, and suggests that improved communication with state agencies is also viewed as important to satisfaction with services by districts.

**Table 22: Involvement of School Health Service Staff in Teaching
Percent Response**

<i>In my district, school health staff are involved in teaching health promotion or prevention in the following areas:</i>	Never	Sometimes	Always
Nutrition/Physical Activity	13.7%	77.5%	8.8%
Human Sexuality Education	19.6	62.7	17.6
Disease Prevention	6.9	63.4	29.7
Injury Prevention	5.0	68.0	27.0
Substance Abuse Prevention	23.5	66.7	9.8
Other	10.1	77.2	12.7

The majority of districts report that school health staff are sometimes involved in teaching each area.

**Table 23: Types of Teaching Techniques Used by Health Service Staff in Teaching
Percent Response**

<i>In my district, health service staff involved in teaching health promotion or health prevention use the following techniques:</i>	Never	Less Than or Equal to 25% of the Time but More Than Never	26-50% of the Time	51-75% of the Time	76-100% of the Time
Individual Teaching	8.5%	25.5%	16.0%	13.8%	36.2%
Classroom Teaching Alone	47.9	44.8	5.2	1.0	1.0
Classroom Teaching with Educator	15.6	69.8	9.4	3.1	2.1
Program Management	40.9	51.6	4.3	.0	3.2
Group Counseling	55.8	44.2	.0	.0	.0
Other Teaching Technique	40.0	48.2	9.4	1.2	1.2

When health service staff are involved in teaching, they are involved in a range of activities including teaching individual students, teaching in classrooms both alone and with an educator, as well as program management, group counseling, and other teaching techniques.

In responding districts, 84% of health service staff are involved in the development of Individual Education Plans.

Demographics

Demographic data was collected from survey respondents and is shown below.

**Table 24: Educational Reference Group (ERG) of Responding Districts
Percent Response**

ERG	Percent
A	6.6
B	13.2
C	18.7
D	16.5
E	14.3
F	8.8
G	12.1
H	5.5
I	4.4

Respondents represent all Educational Reference Groups in Connecticut in percentages representative of the number of districts in the state in each ERG.

**Table 25: Demographic Location of Responding Districts
Percent Response**

Demographic Location	Percent
Urban	12.7
Suburban	52.9
Rural	34.3

The majority of respondents represented suburban districts. However, 13% were urban and one-third were rural districts.

Almost all (95.1%) of districts were public school districts. Five percent were Regional Educational Service Centers.

All respondents provide health services to public school districts. Almost half (46.2%) of districts also report providing services to private school districts.

Survey Open-Ended Questions

I. Health Services Provided to Students in the District:

Respondents appear to be generally satisfied with the state of health services in the districts. Respondents commented freely on a number of areas including the increase in mental health and anxiety related complaints or disorders, the need to work with school psychologists and social workers to establish an increased understanding of mental health screenings and consultations, and the demands for school health services to continue to increase, especially at the middle and high school level. Specific areas addressed by include the following:

- An increased amount of time spent on issues related to emotional health. Nursing time spent on mental health intervention or support for students is not reflected in data requested.
- Use of nurse's office as a "primary site" for health care in some districts.
- Increasing demands for school health services reported by many districts.
- Low levels of physical education and scarce dental and/or nutrition programs.
- Increased demands on nurse's time may lead to difficulties completing mandated screenings.
- Mandated vision and hearing screenings are often completed more than once as a result of parent and/or teacher need for information for CST reports.
- Low nurse to student ratios negatively impact the amount of time available for nurses to teach or be involved in other education or coordination activities.

II. District Requests for Improvement of Health Services:

Districts requested assistance from the Connecticut State Department of Education in a number of areas. Some of the areas in which assistance was requested including the following:

- A mandated nurse to student ratio to better serve students.
- Communication with health service providers regarding mandated information on health forms and new mandates as they arise.
- Increased support for the provision of mental health and dental services.
- Increased support for provision of healthy lifestyle training for students and parents
- Advocacy for equality of managed care plans and other services provided to HUSKY students.
- Professional development for school nurses.
- Development of a "hot line" for nurses and a "School Nurse Guide to Practice."
- Support to assist school nurses to receive certification.
- Support to incorporate health and wellness into the curriculum.
- Assistance to educate administrators on the link between wellness and academic performance
- Assistance developing a pool of substitute nurses.
- Increased education of physicians on the proper use of physical forms.

III. District Context in Cases in Which Epinephrine was Administered:

A number of districts described situations in which administration of epinephrine was required. Situations described included the administration of epinephrine to both staff and students. Anaphylaxis reactions experienced by students resulted from a number of factors including intentional and unintentional ingestion of allergens. The majority of cases described involved reactions to nuts.

IV. Student Health

The concerns most frequently mentioned by respondents were an increase in obesity among students and increased mental health needs. A need for dental health care was also emphasized. Specific concerns expressed by districts included:

- An increased percentage of children with special health needs.
- Increased obesity levels and related poor nutrition.
- Increased numbers of students with multiple health issues.
- Increased asthma levels including an increase in severity of existing asthma cases.
- Increases in numbers of allergies experienced.
- Increased emotional health issues including stress, anxiety, eating disorders, high-risk behaviors including substance use and self-injury and an increased number of psychiatric diagnoses.

Districts requested assistance from the Connecticut State Department of Education in a number of areas related to student health. Assistance requested included the following:

- More nutritious lunches
- Expanded drug and mental health services
- Increased access to psychiatric services and easier follow-up care.
- Development of state health assessment mandate for 6th and 9th grade to combat obesity.
- Assistance identifying and providing dental services.
- More frequent physical education.
- Assistance providing health care insurance for low-income students.
- Increased emphasis on environmental conditions in schools.
- Assistance to educate parents in areas such as obesity prevention and mental health needs of students.
- Link data collection in survey to terminology and data collected in the PPT process.

V. Coordination of Health Services and Health Education

Respondents identified a number of areas for improvement in the area of coordination and collaboration. Specifically, respondents expressed a need for increased communication and collaboration between teachers and nurses in day-to-day student activities, increased nurse involvement in curriculum development, SAT, PPT and 504 meetings and school wellness committees. A number of districts positively commented on the current degree of nurse involvement in many of these areas.

VI. Staffing of Health Services in Districts:

Districts commented freely on the qualifications of school nursing staff. Some of the areas in which comments were frequently made include:

- Overall satisfaction with the qualifications of staff available.
- Difficulty in recruiting highly qualified staff due to low salary schedules.
- Increased staffing needs to address growing special education population.
- Need for increased access to specialists such as psychologists and social workers.
- Insufficient staffing levels, particularly in secondary schools.
- An interest in increasing the availability of substitute nurses.
- An interest in mandated nurse-to-student ratio.
- Need for clerical and support staff.

All open-ended comments have been provided to the Connecticut State Department of Education and are available upon request.

School Health Services Conclusions

Overall, Connecticut school district staff appear to have a positive perception of the status of health services in Connecticut school districts. Survey respondents were generally positive as indicated by the quantitative questionnaire results and the number of comments on the survey questionnaire. Data resulting from the third year of survey administration were examined by the Connecticut State Department of Education and EDUCATION CONNECTION staff and lead to the following conclusions regarding school health services in Connecticut:

- Data indicate that, in responding school districts, 1.5% of students are provided voluntary mental health screening. Of these students, 1678 are referred to mental health providers. Similarly, over 13% of students were provided voluntary dental screening with 7181 referred. Similarly, 18.9% of students were voluntarily provided Pediculosis screenings and 2280 students were referred. These numbers suggest a high need for and interested in screenings in these areas.
- Data indicate that the majority of nursing staff in participating districts are funded by the Boards of Education.
- Data indicate that, in responding school districts, nurse-to-student ratios decrease as grade levels increase. Additionally, survey respondents commented on the need for the Connecticut State Department of Education to set recommended nurse-to-student ratios.
- Data indicate that 22% of districts have less than one FTE registered nurse available in each public school and 62% of districts have less than one FTE registered nurse available in each private school.
- Data suggest that Connecticut school districts are caring for children with a wide range of physical, developmental, behavioral and emotional conditions. Data also indicate that the percent of children with high needs is increasing. It can be expected that the high incidence of these conditions among Connecticut students will increase the responsibilities of school nursing staff. Specific needs were expressed in the areas of mental health, obesity and nutrition. Additionally, it can be expected that these conditions may impact the academic performance of affected children.
- The majority of respondents reported that 76-100% of students who receive a nursing intervention return to the classroom within one half hour. It is expected that, once the condition prompting the child to seek a nursing intervention is addressed, the child will be better able to learn upon returning to the classroom. However, there is currently little empirical data to support this hypothesis.
- Eight percent of districts reported that 26-75% of students did not have health insurance. Four percent of districts report more than 75% of students without health insurance. It can be expected that these students may have a number of health issues that are not addressed as a result of the lack of health insurance.
- A wide variety of software is used by Connecticut districts to collect and record school health information.
- Districts provided a wide range of suggestions of services that would increase district satisfaction with the provision of health services to students. District suggestions include fiscal and non-fiscal resources, information on available resources, communication with state agencies and training for staff.

Recommendations for Future Data Collection

A number of specific recommendations for the Connecticut State Department of Education to consider for future survey administration are as follows:

- Survey data collection provided excellent information regarding a wide range of issues related to school health services. There were no complaints or concerns mentioned by respondents regarding survey data collection. Changes made in the survey administration process based on last year's data appears to have met the needs of participating districts. The only suggestion made by respondents was to ensure that terminology used in the survey is aligned with terminology used in PPT data collection.
- The use of numerical data regarding numbers of students and referrals requires the districts provide information in each category to allow for accurate calculations of percentages between categories. To maximize the accuracy of the information provided, it is critical that a high response rate be achieved for survey completion and that respondents complete each question on the survey. During 2005-2006, a 63% response rate was achieved. It is recommended that future data collection continue to include activities designed to increase the overall survey response rate and ensure that all survey questions are completed by districts.