Background:

The Connecticut State Department of Education (CSDE), as part of its ongoing efforts to support and expand school health services provided to Connecticut students, has completed its twelfth year of data collection regarding school health services. This data collection process is designed to assist the CSDE to understand 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 CSDE commissioned EDUCATION CONNECTION to develop an online survey to collect information regarding the status of school health services from school districts throughout Connecticut. EDUCATION CONNECTION designed the survey process in collaboration with the CSDE and the Connecticut State Health Records Committee. The survey process was pilot-tested in spring 2003, and then implemented in spring 2004. The survey has been administered annually since 2004.

Each year, the Coordinator of School Nursing in each of 169 Connecticut school districts has been asked to complete the online survey. Response rates have ranged from 61-89% over the twelve-year period. Each year, EDUCATION CONNECTION has analyzed the questionnaire data using the IBM Statistics Package and developed a report in collaboration with the CSDE. Final reports are available on the EDUCATION CONNECTION website.

This report presents a summary of survey highlights from 2004 to 2015. The purpose of this summary is to assist school districts and state agencies to track trends in the status of school health services and needs over time. Because the survey has been reviewed and revised as necessary over time, the time range presented in this summary varies.

Nursing Staff:

- Approximately 56-70% of full-time equivalent (FTE) school nursing staff in Connecticut districts has been classified as school nurses, another 6-9% as nurse leaders.

<table>
<thead>
<tr>
<th>Nursing Staff Classification</th>
<th>Percent of FTE Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse Leaders</td>
<td>8.7%</td>
</tr>
<tr>
<td>School Nurses</td>
<td>67.0%</td>
</tr>
<tr>
<td>Other Registered Nurses</td>
<td>8.8%</td>
</tr>
<tr>
<td>Nursing Support</td>
<td>15.5%</td>
</tr>
</tbody>
</table>
**Additional Staff:**

- Approximately 5% of responding districts use the service of medical advisors more than 10 hours per month.

- Approximately 88% of medical advisors specialize in pediatrics or family medicine.

- In the areas of mental health services and psychiatry, although survey results show a significantly greater use of mental health Consultants than other additional specialists, districts indicate a decline in the employment of mental health specialists in 2014-2015 of 13%. Districts show somewhat lower rates of employment among all other specialists as well.

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**Staffing Levels:**

- A majority of Connecticut schools meet national guidelines that recommend a school district have a nurse-to-student ratio of no less than 1 nurse to 750 students in the general population. In addition, the guidelines recommend 1 nurse to 225 students in student populations requiring daily professional school nursing services or interventions, 1 nurse to 125 students in student populations with complex health care needs, and 1 nurse per student for individual students who require daily and continuous professional nursing services. Survey results for 2014-2015 suggest that slightly less than 1 in 6 secondary level schools in Connecticut may not meet general population guidelines. It is important to note that no information is collected regarding the acuity levels of the student population being reported.

- Approximately 16% of districts did not meet the guideline of 1 nurse to 750 students at the secondary level, and 3% at the elementary level did not meet guidelines. The percentage of districts not meeting the guidelines at the secondary level decreased by approximately 36% in the past year, following the previous year’s decrease of 2.6%.
• Between 2005-2010, 8 in 10 Connecticut school districts and 4 in 10 private, non-profit school districts had the equivalent of at least one full-time registered nurse in each school. *

* Data was not collected from 2011-2014 due to change in data collection methodology.
**Staff Qualifications:**

Nurse leader credentials are shifting over time...

- The highest percentage of nurse leaders have a B.S. in Nursing and has generally increased in most districts over time.
- The percentage of nurse leaders with non-nursing B.S. degrees has shown an overall decrease since 2005.
- The percentage of diploma R.N. nurse leaders has remained fairly steady in recent years while the percentage of leaders with an Associate degree has continued to decline slightly.

![Qualifications of Nurse Leaders: Nurse Leader 1](image)

**Health Care Screenings:**

- The optional service provided most frequently by districts to their public school students is pediculosis screening.
- In 2014-2015, approximately 15% of public school students received pediculosis screenings, while less than 1% of students received nutrition screenings.
- The past year experienced a significant increase in reported mental health screenings in public schools that resulted in students who were referred to outside providers. 38% of screened students were referred. In private schools 36% of screened students were referred to outside providers. Numbers of students who were screened remained level with the prior year.
- Over time, between 7-24% of districts have provided dental services. The percentage of public school students receiving dental screenings has never exceeded 13%, and for 2014-2015 were at 8.3%.
- Vision screenings, compared to other mandatory services, continue to generate the greatest number of referrals. From 4-6% of vision screenings result in a referral.
**Student Health Care Needs:**

- Connecticut school nurses provide services to students with a wide range of physical and emotional health needs. The health care conditions reported most frequently by districts are asthma, Attention Deficit Hyperactivity Disorder/Attention Deficit Disorder (ADHD/ADD), food allergies, latex allergies and other behavioral/emotional issues.

- Approximately 12.8% of public school students in Connecticut are reported to have asthma in 2014-2015.

- Approximately 4.5% of public school students are reported to have ADHD/ADD and an additional 1.7% of students are reported for other behavioral conditions.

- The percent of public school students with life threatening food allergies has generally increased slightly each year since 2006.
Health Care Procedures Performed by School Nurses:

- The health care procedures most likely to be performed in the public school setting are nebulizer treatments, blood sugar testing, and insulin pump management.

- Approximately 88% of districts serving public schools perform nebulizer treatments, blood sugar testing, and insulin pump management.

- All procedures are less likely to be performed in the private, non-profit school setting than in the public school setting.
9-1-1 Calls:

- The percentage of districts making more than ten 9-1-1 calls per year peaked in 2007 at 41%.
- Injury remains the most frequently cited reason for 9-1-1 calls in 2014-2015. Anaphylaxis and seizure disorders continue to increase in reporting as additional reasons for calling 9-1-1.

![Bar chart: More Than Ten 9-1-1 Calls Per Year]

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
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<tbody>
<tr>
<td>2004</td>
<td>25.7</td>
</tr>
<tr>
<td>2005</td>
<td>30.0</td>
</tr>
<tr>
<td>2006</td>
<td>33.7</td>
</tr>
<tr>
<td>2007</td>
<td>40.6</td>
</tr>
<tr>
<td>2008</td>
<td>34.5</td>
</tr>
<tr>
<td>2009</td>
<td>33.7</td>
</tr>
<tr>
<td>2010</td>
<td>25.7</td>
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**Note:** During 2011, data collection was altered to identify the actual number of 9-1-1 calls per district.

From **2011 through 2015**, between **three** and **four** 9-1-1 calls were made for every 1,000 students in the public schools. Fewer 9-1-1 calls per student were made for students in the private, non-profit schools.

For staff and other adults in **2015**, 119 public school districts reported that a total of **311** 9-1-1 calls were made, and for private schools, a total of **48** 9-1-1 calls were reported among 48 responding districts.
Concussion Occurrence in 2014-2015

For the first time this year at the request of the State Department of Education, the School Health Services Survey incorporated a series of questions pertaining to concussion incidence and follow-up measures, across all Connecticut school districts. The following table reflects mean and median averages for diagnosed concussions per district, as well as total reported number of students diagnosed with concussion in the state.

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Number of districts responding</td>
<td>139</td>
</tr>
<tr>
<td>Mean number of concussions per district</td>
<td>39.9</td>
</tr>
<tr>
<td>Median number of concussions per district</td>
<td>28.0</td>
</tr>
<tr>
<td>Number of diagnosed concussions for reporting districts in Connecticut for the 2014-2015 school year</td>
<td>5,551</td>
</tr>
</tbody>
</table>

Respondents were asked to select from a list of organized school activity categories, the specific activities where concussions were most likely to occur. A majority of participating district supervisors (90%) indicated that 2,326 diagnosed concussions occurred outside of school, while 81% selected school interscholastic athletics classes as the most frequent activity for concussion occurrence. The lowest number of diagnosed concussions occurred during school intramural activities.

A combined total of 10,655 accommodations were provided to students diagnosed with concussion in the 2014-2015 school year. The most frequently provided accommodation was for modification of physical activity, with 4,480 students in need of the accommodation. The least necessary accommodation was for homebound instruction, with 172 students receiving the service across all reporting districts.

Accommodation requiring the greatest number of days of service was for physical activity, reflecting a mean of 4.8 days based on 15 responses. Academic accommodations were required for a mean of 3.9 days per diagnosed student as indicated by 14 responses, while Individual Health Care Plans, Section 504 Plans and Homebound Instructions each required less than one day of accommodation each. The question pertaining to length of time for accommodations received the fewest responses overall, suggesting that some respondents may have not had access to, or knowledge of this information.
**Health Coordination/Education:**

- The number of reporting districts that always provide individual health care plans, individual emergency plans, and staff training to meet individual student needs show a gradual increase over the last decade. The percent of districts that always provide development of 504 Plans has generally remained flatter over time, with the exceptions of 2013 through 2015 which indicate significant increases.

- The health care management service most likely to be provided by districts on a consistent basis is the development of individual emergency plans. 91% of districts always provided this health care management service in 2015.

- The number of districts with an automatic external defibrillator (AED) program in place, continue to increase over time.

- 60% of districts had an AED program in 2005 compared to 98.4% in 2015.

- Since 2007, about 80% of reporting districts indicated having a School Health Team. Following a slight decline in 2010 and 2011, this level returned to approximately 80% between 2012 and 2015.
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