LEXINGTON SCHOOL COMMITTEE MEETING
Tuesday, April 30, 2013
Lexington Town Office Building, Selectmen's Meeting Room
1625 Massachusetts Avenue

7:30 p.m. **Call to Order and Welcome:**
Public Comment – (Written comments to be presented to the School Committee; oral presentations not to exceed three minutes.)

7:40 p.m. **Superintendent's Announcements:**

7:45 p.m. **Members' Reports / Members' Concerns:**

8:00 p.m. **Agenda:**

1. Discussion of School Committee Policy, *Poster, Drives, and Collections,* Section 1.B., Flyers and Notices – Presentation by Lexington Resident, Shane Arnold (10 minutes)
2. Update from the Ad Hoc Committee to Reduce Student Stress – Presentation by Lexington Residents, B.J. Rudman and Bill Blout (15 minutes)
3. Public Hearing on School Choice (5 minutes)
4. Report on PreK-12 Health Services (30 minutes)
5. FY 2013 3rd Quarterly Financial Report (15 minutes)
6. Clarke Middle School China Exchange Program (40 minutes)
7. Vote to Approve 2013-2014 LHS French Student Exchange Trip to Antony, France, and Brussels, Belgium (5 minutes)
8. Vote to Approve 2013-2014 LHS Chinese Student Exchange Trip to China (5 minutes)
9. Vote to accept a $374 Donation from Wilson Farms' *Shop at Wilson Farms* School Fundraiser to Be Deposited in the Maria Hastings School Gift Account (2 minutes)
10. Vote to accept a $462 Donation from Wilson Farms' *Shop at Wilson Farms* School Fundraiser to Be Deposited in the Bridge School Gift Account (2 minutes)
11. Vote to Approve School Committee Minutes of February 26, 2013 (2 minutes)
12. Vote to Approve School Committee Minutes of March 12, 2013 (2 minutes)
13. Vote to Approve School Committee Minutes of March 18, 2013 (2 minutes)
14. Vote to Approve School Committee Minutes of March 20, 2013 (2 minutes)
15. Vote to Approve School Committee Minutes of March 27, 2013 (2 minutes)
16. Vote to Approve School Committee Minutes of April 1, 2013 (2 minutes)
17. Vote to Approve School Committee Minutes of April 3, 2013 (2 minutes)
18. Vote to Approve School Committee Minutes of April 8, 2013 (2 minutes)

The next meeting of the School Committee is scheduled for Tuesday, May 14, 2013, at 7:30 p.m. in the Town Office Building, Selectmen's Meeting Room, 1625 Massachusetts Avenue.

All agenda items and the order of items are approximate and subject to change.

LEXINGTON SCHOOL COMMITTEE POLICY

POSTERS, DRIVES AND COLLECTIONS POLICY

Date Approved by School Committee:	Signature of Chair:	
1997	On File	Page 1 of 1

1. APPLICATION

A. Erection of Posters

Erection of posters in the various school buildings will be permitted provided the organizations are local and charitable in nature and non-commercial. Posters of other activities of value to pupils may be placed in the building with the approval of the principal. It is understood that these posters will not be permitted to disturb any school displays.

B. Flyers and Notices

Flyers or notices will not be permitted to be sent home by children except when they are "school-sponsored" or "system-sponsored". "School-sponsored" will permit school distribution only. "System-sponsored" will permit system-wide distribution. These notices are not to be duplicated in the school and are to be delivered to the principals so that the teacher may simply distribute them. Notice of the distribution should be received at least three days in advance. Except in emergencies, no verbal notices will be issued.

C. Collections

1. No collections of any kind will be allowed in the schools except those which may be a part of the educational program of the Lexington Public Schools.

2. No organizations except those qualifying under "school-sponsored" or "system-sponsored" will be permitted to sell tickets to students during the school day, and only with special permission of the Superintendent of Schools. This selling of tickets shall be handled by the personnel of those organizations during a specific period of the school day, general recess, and the noon hour, and in a definite location.

Revised: 10/02

Reformatted: 10/10/02

Clarke's Mandarin Program

Anna Monaco
April 30, 2013

Agenda

- Overview of the Mandarin Program
- History of events up to this point
- Plans and next steps for Clarke and the Clarke Community
- The importance of student travel and having a cultural understanding

Clarke's Mandarin Program 2012-2013

- 6th grade: 32 students: 2 sections
- 7th grade: 40 students: 2 sections
- 8th grade: 17 students: 1 section
- Total Enrollment: 89 students
- 1.25 Teaching FTE

Asia Society Grant

- 2010-2011: $11,500
- 2011-2012: $13,000
- 2012-2013: $11,000

Grant Money has been used for:

- Professional Learning
- Travel
- Materials and Supplies
- Technology

Our Objective

- We are seeking to establish a sustainable student-to-student exchange partnership with the Jinhua Foreign Language School

History

- Dr. Flynn began collaboration with YongJin Middle School, in Hangzhou, during the 2010-2010 school year
- The principal and teacher visited Clarke in April 2010
- Dr. Flynn traveled to San Francisco to attend the National Chinese Language Conference and continued the conversation
- That conversation ended in the summer 2011 when the principal left his position

Since 2011

- We have worked with the Asia Society to find a strong match for Clarke
- March 2012: We formally invited the Principal and Deputy Principal of the Jinhua Foreign Language school to visit Lexington and Clarke.
- April 2012: Principal and Deputy Principal visited Clarke

2012

- We traveled to Washington DC to the National Chinese Language Conference to continue the conversation
- We learned the Jinhua Foreign Language School is eager to begin an exchange
- In Washington DC, Clarke received an award as one of the 100 Confucius Classrooms in the United States

2012-2013

- Mrs. Monaco attended the Confucius Classrooms Leaders Summit in Shanghai, China, November, 2012
- Ms. Jane met there to visit the school in Jinhua. She visited the school, housing, and the surrounding community.
- The trip was funded by the Asia Society and our yearly Asia Society Grant

2012-2013

- Ms. Monaco and Ms. Jane attended the 2013 National Chinese Language Conference
- We presented to staff and students
- We worked with Primary Source / EF tours to plan a trip for interested staff members.
- Two Primary Source workshops to be held at Clarke this spring open to anyone who is interested.

Summer 2013

- Ten Staff members traveling to China for 10 days
  - Beijing
  - Xi'an
  - Shanghai
  - Jinhua - hosted by the Jinhua Foreign Language School

Summer 2013

- Our Group's Purpose:
  - Professional Learning
    - English, Drama, Science, Engineering, Social Studies
  - Help with planning events moving forward
  - Help with planning fundraising
  - Work with the faculty on what we have learned
  - Work on ways to connect the students from the two schools - using technology?

Next Steps

- Students from China will visit in October 2013
- Spend a week with host families and attend classes at Clarke
- Possible community field trips
- Community event
- The students from China will travel to NYC or Washington DC after their visit to Lexington.

Next Steps

- Possibility of bringing a small group of Clarke students to China over April Vacation 2014
- Stay with host families
- A few days to travel: Beijing, Shanghai
- Keeping the $$ similar to Costa Rica Trip

Our Survey

- 40 families surveyed:
  - Over 20 were interested in hosting a student from China in the Fall 2013
  - Thirty-one families surveyed indicated that they were interested in sending their child to China in April 2014
  - We asked about concerns parents had about such a trip. (Allergies, chaperones, communication, emergency plans, passport / visa paperwork etc.)

Why Middle School?

- Lexington is an international community of residents
- Current Spanish / French trips at Clarke
- Real world, life-changing experience
- A changing / global society

Lexington Public Schools

146 Maple Street ❖ Lexington, Massachusetts 02420

Mary Ellen N. Dunn.
Assistant Superintendent for Finance and Business

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To: Paul Ash, Superintendent
From: Mary Ellen Dunn, Assistant Superintendent for Finance and Business
Date: April 26, 2013
Re: FY 2013 – 3rd Quarter Financial Report

The projected surplus for FY 2013 is $185,400 based on the assumption that program leaders will spend the remaining amounts in their budget which close on May 1. On April 22, $989,311 is the unspent balance in program budgets. The source of funds is due to normal changes in staffing, lower out-of-district tuition costs, surplus program funds, and additional special education circuit breaker funds. Currently, $391,325 is being held in reserve for 23 high risk placements for May and June. Use of substitutes (Long-Term and daily subs) will also need to be monitored as there is approximately $190,000 being held in reserve to cover these unknown expenses for May and June. The current FY13 projected surplus is likely to increase during the next month as encumbered funds are released (e.g. extra program expense funds, substitute costs, funds needed for high risk placements).

3rd Quarter Financial Summary with known transfers

TYPE	Sum of BUDGET	Sum of YTD PROJ	Sum of Balance	% Remaining	Known 4th Qtr Adjustments	Revised Balance	Revised % Remaining
SALARIES & WAGES	$ 64,481,248	$ 64,485,360	$ (4,112)	0.49%	$ 37,766	$ (41,878)	-0.06%
EXPENSES Sum	$ 12,147,107	$ 10,930,379	$ 1,216,728	9.19%	$ 989,311	$ 227,417	1.87%
Grand Total	$ 76,628,355	$ 75,415,738	$ 1,212,617	1.58%	$ 1,027,077	$ 185,540	0.24%

3rd Quarter Financial Summary without known transfers

TYPE	Line #	Program Description	Sum of BUDGET	Projected Payrolls	Sum of YTD PROJ	PROJ YTD	Sum of Balance	% Remaining
SALARIES & WAGES Sum			$ 64,481,249	$ 19,194,365	$ 45,290,995	$ 64,485,360	$ (4,110)	-0.01%
EXPENSES	0	PROGRAM EXPENSES	$ 4,430,822		$ 3,441,511	$ 3,441,511	$ 989,311	
	41	TUITION	$ 5,588,952		$ 5,054,729	$ 5,054,729	$ 534,223	
	42	TRANSPORTATION - Spec. Educ.	$ 1,015,000		$ 1,033,309	$ 1,033,309	$ (18,309)	
	44	TRANSPORTATION	$ 889,973		$ 889,973	$ 889,973	$ -	
		TRANSPORTATION - Aggie/Homeless	$ -		$ 32,856	$ 32,856	$ (32,856)	
	46	LEGAL SERVICES	$ 222,360		$ 478,000	$ 478,000	$ (255,640)	
EXPENSES Sum			$ 12,147,107	$ -	$ 10,930,379	$ 10,930,379	$ 1,216,728	10.02%
Grand Total			$ 76,628,356	$ 19,194,365	$ 56,221,374	$ 75,415,738	$ 1,212,618	1.58%

Salaries and Wages (projected deficit $4,112): Since the district is currently negotiating the three remaining union contracts, final wage settlements are not yet known. The third quarterly projection is based on current personnel information and estimated wage settlements. It is also based on an estimate for substitutes needed from April 22 through to the end of the school year. All of these variables could shift the balance towards a deficit due to the number of temporary supplemental positions added this year.

These transfers are needed:

1. Transportation Coordinator - $31,630
2. Title I Salaries and MTRS - $3,887
3. Title IIA Salaries and MTRS - $2,249

These transfers are required under the terms of the grants and the transportation budget. It will reduce the Salary and Wage budget balance to a deficit of $41,878. The Transportation Coordinator is charged in full to the Revolving fund and then apportioned to the operating budget to cover the district portion of regular and special education transportation.

Expenses: The expense budget surplus is projected to be $1,216,728. However, if all program budget managers expend their full budget allocation, then the potential balance is $227,417. These available funds have already been earmarked for the following purpose and a vote finalizing the transfer is required.

1. Teacher Evaluation Training $95,000 for training and stipends

In addition, there are three accounts that significantly vary from the budget allocation: Transportation (In-district, Out-of-District, Homeless/Agricultural School), Special Education Out-of –District Tuitions, and Legal Services.

Out-of-district Tuition (projected surplus: $534,223: The out-of-district tuition budget currently supports 127 students (102 active out-of-district, 23 high risk, and 2 unilateral placements). The budget included 116 students (95 active out-of-district, 13 high risk, and 8 unilateral placements). Even though there has been a shift in placement activity, the budget continues to be controlled.

Tuition Projection as of March 31, 2013

	FY 13 Budget	Revised Revenue	FY13 Proj	FY13 Balance
Total Projected tutiion FY13	$ 8,157,380		$ 7,829,096	$ 328,284
FY 13 Circuit Breaker	$ 2,318,428	$ 355,939	$ 2,674,367	$ (355,939)
LABBB Credit	$ 250,000	$ (150,000)	$ 100,000	$ 150,000
	$ 5,588,952	$ (205,939)	$ 5,054,729	$ 534,223

The LABBB Credit used has been reduced from $250,000 to $100,000. The difference of $150,000 will be applied to the FY14 budget and is earmarked for the following purposes and a vote finalizing the transfer is required.

1. FY14 Teacher Evaluation Training ($80,000)
2. REMS Training in August ($30,000)
3. Other Professional Development needs ($40,000)

Out of District Tuition Budget Summary

DOE Function Code	DOE Function Title	Status	Program Type	Sum of FY13 ATM Budget Head Count	Sum of FY 13 ATM Budget	Sum of FY13 CURRENT HEAD COUNT	Sum of FY13 anticipated cost
9100	Tuition to Mass. Schools	High Risk Placement	1:1 Aide				4,359
			day	1	36,633	5	66,387
			summer				
		Tuition	day	5	276,124	7	313,361
			extended services		8,396		8,396
			summer	1	30,098	1	42,523
			short term			1	26,112
9100 Total				7	351,252	14	461,138
9200	Tuition to Out-of-State Schools	Personnel	1:1 Aide		39,491		39,917
		Tuition	residential	1	264,431	2	375,555
		Unilateral Placement - High Risk	day	1	21,416		
9200 Total				2	325,338	2	415,472
9300	Tuition to Non-Public Schools	High Risk Placement	1:1 Aide				
			day	9	526,383	15	257,509
			residential	1	93,641		87,955
			summer		6,806		
			summer & day			1	40,000
		Personnel	1:1 Aide		69,244		59,452
		Summer Program	summer program	2	18,771		27,973
		Tuition	day	42	2,544,157	49	2,720,972
			residential	10	2,035,897	9	1,875,143
			summer	1	29,147	1	27,667
			short term		46,723		58,085
		Unilateral Placement - High Risk	day	7	221,040	1	43,400
			residential			1	187,282
			summer				
9300 Total				72	5,591,809	77	5,385,437
9400	Tuition to Collaboratives	High Risk Placement	day	2	106,814	1	18,203
			summer				
			summer & day			1	16,912
		Personnel	1:1 Aide		73,961		90,394
			summer & day		49,500		
			summer program	1	33,161	1	33,161
		Tuition	1:1 Aide				12,144
			day	3	133,394	30	1,214,910
			extended services		18,409		27,553
			summer		2,530		123,292
			summer & day	29	1,453,550		2,974
			short term		8,320		8,320
			day			1	19,185
9400 Total				35	1,879,640	34	1,567,049
9299	Tuition to Non-Public Schools	Tuition	short term		9,343		
9299 Total					9,343		
Grand Total				116	8,157,381	127	7,829,096

Transportation:

Regular Transportation: We have finished our negotiations with C &W for the cost impact of Elementary Afterschool Transportation and for the installation of camera and video equipment required by contract. The negotiations resulted in no change to the operating budget.

As reported in the October 24, 2012 memorandum "Update on School Bus Ridership", the School Department will need to use $285,365 of the $316,000 Annual Town Meeting, Article 17 subsidy. The final determination of the subsidy used will be calculated in May when final payments for the 2012-2013 school year are received.

The program is charging a fee of $300 for yellow bus transportation and $50 for the FlexPass option. The increase in ridership, combined with the Town Meeting subsidy means parents are now paying 45% of the cost per seat. Last year, parents paid 80% of the cost per seat.

Homeless Transportation (projected deficit: $32,856): The district is anticipating an increase in the need to transport homeless students from the Quality Inn (440 Bedford Street) in Diamond/Estabrook district. We have learned that this site is under contract with the U.S. State Department and Mass. Dept. of Housing and Community Development. Under the McKinney Vento Act, the cost of transportation is split between the school district where the student resides and the school district the student attends school. Currently, we are sharing costs for students from Boston, Somerville, Everett, and Burlington. These students do not attend our schools. Our current projected cost for this service is $32,856, which will increase if we continue to have more homeless students living in our district for the remainder of the school year.

Special Education Transportation (projected deficit: $18,309): While our out-of-district transportation costs are declining, the in-district transportation costs are increasing. The budget projection does not hold any transportation funds in reserve for any of the twenty-seven projected high risk students who may be placed in out-of-district schools before the close of the school year. Not included in this report is an additional van that will need to be added for the balance of the year. The projected cost is not available at this time.

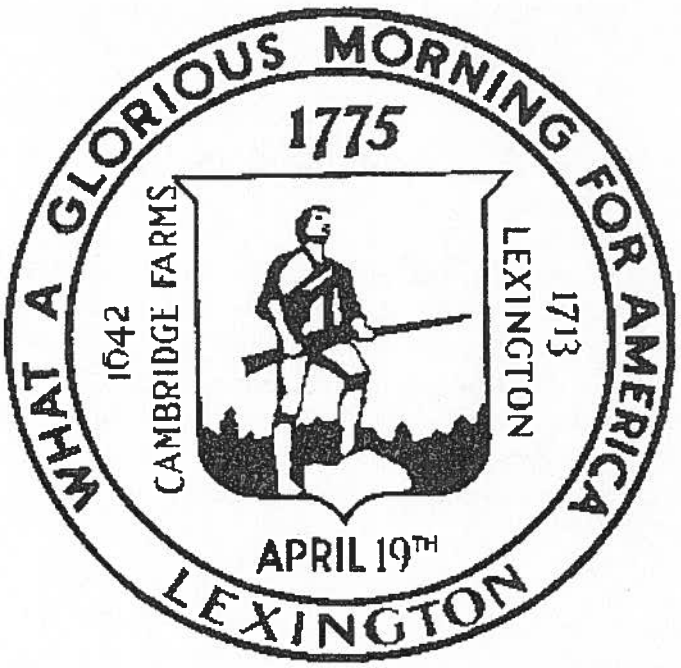
Legal Services (projected deficit: $255,640): Recent personnel and special education legal expenses have resulted in a growing deficit in this account. The amount projected is the current best estimate of what will be expended by the end of the fiscal year. This projection is currently reserving $150,000 in unallocated funds to cover new expenses for April, May and June. The prior year actual expenditures for this account were $360,559 for FY12 and $316,622 for FY11. The FY14 budget maintains the current level of funding at $222,360.

Recommended Transfers:

Program	Amount	From	To
Transportation Coordinator	$31,630	Transportation Revolving	Salaries & Wages – Line 5
Title I Salaries and MTRS	$3,887	Title I Grant	Salaries & Wages – Line 1
Title IIA Salaries and MTRS -	$2,249	Title IIA Grant	Salaries & Wages – Line 1
Teacher Evaluation Training	$95,000	Tuitions	FY14 Salaries & Wages and K-12 PD Budget
FY14 Teacher Evaluation Training	$80,000	LABBB Credit	FY14 Salaries & Wages and K-12 PD Budget
REMS Training in August	$30,000	LABBB Credit	FY14 Salaries & Wages and form new Emergency Response accounts
Other Professional Development needs	$40,000	LABBB Credit	FY14 Salaries & Wages and K-12 PD Budget

LEXINGTON PUBLIC SCHOOLS
HEALTH SERVICES DATA REPORT

2011 – 2012 School Year



Jill Gasperini RN, MN
Coordinator of School Health Services
Lexington Public Schools

Massachusetts Department of Public Health
Bureau of Community Health and Prevention
Office of Statistics and Evaluation

Spring, 2012

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To obtain other Department of Public Health data:
Register for the Department's free and internet-accessible data warehouse, MassCHIP: masschip.state.ma.us/beuser.htm or call 1-888-MAS-CHIP (MA only) or (617) 624-5541.

Acknowledgments

This report was prepared with the assistance of Robert Leibowitz of the Office of Statistics and Evaluation, Bureau of Community Health and Prevention. Anne Sheetz, Director of School Health Services, helped write the introduction, providing the history of the Essential School Health Services model. Further, I extend my appreciation to Anne Sheetz, Mary Ann Gapinski, Cathy Burgess, Thomas Comerford, and Janet Burke of the School Health Unit for their work with the Essential School Health Services program. Most especially I thank the school nurses for providing their time, clinical expertise, and cooperation with data collection.

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Introduction

In recent years, research has highlighted major societal, legal, and medical technological changes and their effect on the demand for school health services. These changes include: (1)) increased awareness of the relationship between health and educational achievement;(2) improved medical technology; (3) increase in the number of students with special health care needs combined with an increase in condition severity in these students; (4) rapid restructuring of the health care delivery system; (5) laws requiring inclusion; (6) changes in family structure and patterns of parental employment; (7) rise in social morbidities such as substance abuse, depression, and violence among children; and (8) impact of diverse cultural and linguistic groups.

- Attendance in the early grades is correlated with school achievement and dropout rates. School nurses support attendance by providing needed health services in school. They also provide assessments of illness and injuries. School nurses are significantly less likely to dismiss a student than an unlicensed counterpart (Pennington & Delaney, 2008), and in one study 57% less likely (Wyman, 2005).

- As neonatal intensive care unit survivors enter early intervention services and kindergarten, the need for school health services increases (Clement, Barfield, Ayadi & Wilber, 2007). Data show that the students in the Commonwealth's schools require increasingly complex health care during the school day. Children with special health care needs (CSHCN) are defined by the Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau (MCHB) as: "...those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally" (McPherson et al., 1998). The FY12 School Health Data reported 23.7% of Lexington students have at least one special health care need.

- Nationally, the incidence of diabetes among adults 18 - 79 has almost doubled in the last 10 years (CDC, 2008), and diabetes is increasingly being diagnosed in children and adolescents (Hannon, Rao, and Arslanian, 2005). In Massachusetts the percentage of children prescribed epinephrine for life threatening anaphylaxis more than doubled between 2001 and 2010, rising from .72% to 2.05%. In addition, the Cedar Rapids v. Garret Supreme Court decision of 1999 clarified the extent to which school districts are required to provide school nursing services for medically fragile children.

- Children assisted with medical technology, e.g. catheterizations, tracheostomies, ventilators, etc., are now attending school. Likewise terminally ill children are in the Commonwealth's classrooms, necessitating end of life planning.

- The rapid restructuring of the health care delivery system has dramatically impacted school health service programs. With reduced hospitalizations and/or reduced lengths of stay, school nurses are now often responsible for supervising the care of children who have illnesses such as acute asthma and diabetes, formerly managed in a hospital setting (Chabra et al., 2000; Coffman et al., 2008; Leslie et al., 1998; Schutte et al., 1997).

- Social attitudes that promote inclusion, as well as state and national laws, such as the Individuals with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 specify disability rights and access to education, resulting in more children requiring nursing care and other health-related services in school (Palfrey et al., 1992; Raymond, 2009; Small et al., 1995).

- With more working parents, children who are sick with mild or chronic conditions are less likely to be monitored at home on school days, and more likely to be sent to the school nurse for assessment and a determination as to whether they need to see a physician (Smolensky and Gootman, 2003; Thurber et al., 1991; Uphold & Graham, 1993; U.S. Census Bureau, 2000; Wold, 2001). In Lexington, 39.7% of health encounters in 2011-2012 were for the purpose of illness assessment.

- Students spend a large part of their day at school; therefore, the school has become an important site where health and education risks, e.g. depression, absenteeism, substance use, may be identified and timely interventions initiated. One in five young people between that ages of 9 and 17 experiences symptoms of mental health problems, and one in ten children and adolescents has a mental illness severe enough to cause some level of impairment; yet in any given year, only about one-fifth of children in need of mental health services actually receive them. (US Surgeon General's Conference on Children's Mental Health, 2000). This disproportion can result in increased demands for professional health services in the schools (Thurber et al., 1991).

- Massachusetts schools have many "newcomer" groups, both immigrants and refugees, as well as those families who move between different communities. Often such families rely on the school for information about what services or providers are available in the community. They may not know how to obtain care elsewhere because of language or cultural barriers and, therefore, look to the school health service for assistance.

The Massachusetts Department of Public Health (MDPH) recognizes the need for quality school health services and provides consultation to all of the Commonwealth's school districts. Since 1993, the Department of Public Health has extended to a number of school systems the opportunity to expand on the basic school health services model by establishing the Essential School Health Services Program (ESHS). (The Essential School Health Services Program was originally entitled the Enhanced School Health Service Program.)

In 1993, thirty-six school districts were funded for three and half years to: (a) strengthen the infrastructure of school health services in the areas of personnel and policy development, programming, and interdisciplinary collaboration; (b) incorporate health education programs, including tobacco prevention and cessation programs, into the existing school health programs; and (c) develop linkages between school health service programs and community health care providers.

In October 1997, the Department funded 19 school districts under the Essential model (Essential School Health Services, ESHS) and 8 school districts with experience in developing the Essential model to provide consultation to approximately 42 additional school districts ("recipient schools") across the Commonwealth (Essential School Health Services with Consultation, ESHSC). These recipient school districts were interested in developing similar school health service programs.

In November, 1999, the Massachusetts legislature allocated additional funding to the Essential School Health Service Programs (ESHS and ESHSC). School systems for both models were selected for participation through a competitive bid process based on a Request for Response (RFR) developed by MDPH. As a result of the 1999 RFR process, a total of 77 school districts (or affiliated school systems)[1] received awards in 2000: 11 Essential School Health Services with Consultation and 66 basic Essential Programs. An added component of the 1999 RFR was that each applicant public school district was required to provide some elements of basic school health services (vision/hearing screening, immunization review, etc.) to all non-public and charter schools within the community (77 award recipients in 2000 served 253 non-public and charter schools)[2]. An additional 32 school districts received awards in 2001; all of these were basic Essential Programs (Sheetz, 2003).

In February 2003, midyear budget reductions eliminated most funding for the ESHS programs for the remainder of the fiscal year. Because of this, three programs decided to withdraw from the ESHS grant, thus reducing the number of participants to 106 school districts in the spring of 2003. Three more schools withdrew from the grant in 2004, and one additional school withdrew in 2006, leaving 102 districts in the ESHS program.

In 2009 a new funding cycle started and 80 school districts were funded. Of these 80 funded districts, 68 (85%) had been funded during the previous cycle. Thirty-four districts in the previous funding cycle (33% of the 102 districts included in the earlier funding cycle) were not included in the new funding cycle. The number of funded districts was reduced because some funds were freed to establish an extension of the ESHS programs, namely mentored/partnered schools. Each of the 68 experienced programs (with the exception of the large cities) was required to mentor or partner with two other school districts in order to increase adoption of the standards established in the ESHS program initiative. Therefore 146 additional mentored/partnered school districts,[3] each with a limited amount of funding, were added to the model. These school districts were required to meet a specified scope of service. Of note is that in the FY10 school year, these mentored/partnered school districts began to submit some data, consistent with ESHS requirements.

In addition to the Mentor/Partner School Program component of the 2009 grant cycle, a Regional Consultation program was also included in the funding. These six regional ESHS programs (based on the EOHHS defined regions) were selected to provide consultation to ESHS programs

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[1] ESHS funding was awarded to local public school systems, regional academic school systems, independent vocational systems, vocational-technical regional systems, and school unions.

[2] 223 non-public (private and parochial) schools, 30 charter schools.

[3] All public school districts were invited to join this program. . A number of vocational schools, educational collaboratives and charter schools were also invited to participate in this program when an opening in a geographic area was available.

within their general geographical area. Regional consultation school districts must have been previously awarded the Essential School Health Service (ESHS) or Essential School Health Service with Consultation programs (ESHSC). The general goal of the ESHS Regional Consultation grant is to maximize the existing school nursing expertise, leadership and infrastructure to provide additional consultation to ESHS programs (including their mentored/ partnered school districts and community public schools as appropriate) within a general region.

In October 2009, 9C cuts to the ESHS programs resulted in the reduction to 50% funding for 13 programs. Lexington Public Schools funding was not reduced. However, one private school was no longer funded through the program.

The staff of the School Health Unit, Division of Primary Care and Health Access in the MDPH Bureau of Community Health and Prevention administers the programs.

Executive Summary

The information collected by the Lexington School Nurses for the Essential School Health Services Program provides a valuable snapshot of school nursing practice in Lexington Public Schools. The data reveal that school nurses perform a wide array of duties -- direct care, health education, administrative case management, and policy/program development and oversight -- on behalf of students whose health needs range from routine to serious and complex. In addition, some school nurses provide services to school staff.

Analysis of the data for the school year beginning September, 2011 and ending June, 2012 showed the following:

- 9 schools reported a total of 58,940 student health encounters, and 1,136 staff encounters.
- 87% of Lexington students received health services from a school nurse at least once during the school year. There was variability among schools, with the encounter rate ranging from 75% to 95% students receiving health services.
- After assessment and/or treatment by a school nurse, the majority (93.8%) of the students visiting the nurse's office with an illness or injury complaint were returned to the classroom to continue their studies.
- School nurses referred students to urgent health care services a total of 68 times, 15 of which involved 9-1-1 ambulance calls. In the remaining cases, parents or others were called to transport the student to immediate urgent health care services.
- The majority (95.7%) of the prescriptions managed by the school nurse were for medications dispensed on a PRN, or "as needed" basis.
  - Among students taking PRN medications, 276 asthma medications were prescribed.
  - The prescriptions for "as needed" epinephrine increased from 160 in 2005 to 336 in 2012.
  - Among students on scheduled prescription medications, psychotropic medications (drugs affecting perception, emotion or behavior) were by far the most common (45.2% of scheduled medication prescriptions).
- The school nurses administered on average 855 doses of prescription medication to students per month. Variability among schools was somewhat due to enrollment size and whether a school had students with diabetes.
- 56.7% percent of the scheduled doses were for psychotropic medication; 64.1% of PRN prescription doses were for insulin coverage, 19.8% were for asthma medication, and 5.9% were for pain management. This last statistic does not include the school district standing order protocol for analgesic management used by the high school nurses. The high school nurses administered on average 97.3 doses of analgesic medication per month.

- School nurses conducted Body Mass Index screenings on 1,910 students in grades 1, 4, 7 and 9. Overall, 18% of the students screened were overweight or obese (12% overweight, 6% obese).
- Diabetes care procedures account for an increasing amount of nurses' time. Blood glucose testing, the most common medical procedure, increased from 514 procedures each month the prior year to 558 procedures per month in 2012. While the proportion of students requiring glucose testing may be relatively small, the number of daily tests on those students requires considerable nursing time and assessment, as each child usually requires glucose monitoring several times a day.
- School nurses partnered with the Town of Lexington Health Division to hold two flu clinics, one at Diamond Middle School and the other at Lexington High School.
- A total of 1522 students with special health care needs were reported (24% of enrollment).
  - The most common physical/developmental condition reported to school nurses was asthma (9.8% of students have asthma).
  - The most commonly reported behavioral/emotional condition was Attention-Deficit/Hyperactivity Disorder (3.8% of students).
- Every school has at least one AED in the school building.

Continued refinements in data collection and analysis will more accurately capture school nursing and school health activity, improve our ability to monitor the health needs and status of the school age population, and identify areas for improvements in services and quality of care. Identifying trends in school health encounters and student health indicators may assist school nursing staff in improving the delivery of prevention, education, and intervention services to the school community. Future data collection efforts will seek to increase our knowledge of health needs in the school setting and in the school age population, explore the relationship between student health status and educational outcomes, and investigate ways in which health services and prevention activities in schools can help children live healthier lives.

Findings

School Nurse Staffing

In the Lexington program, 12.2 full-time equivalent (FTE) school nurses provided health care services to students and staff. The total FTE includes the Nurse Leader position. In FY12 the student-to-nurse ratio was 524 students per nurse. Forty-six percent of Lexington School Nurses have an advanced degree (Masters, Nurse Practitioner).

FY Year	Total RN FTEs	Bachelor's Degree	Advanced Degree	Student Nurse Ratio
2012	12.2 (13 RNs)	7	6	524
2013	13.0 (14 RNs)	7	7	500

Student Demographics

Students with language barriers create communication challenges. Registration, health record maintenance, and effective health interventions are impacted by language barriers. Lexington has a higher than average student population where English is not the first language spoken at home.

TABLE 2. Selected Characteristics of Students

Characteristic	Lexington Public Schools		State Public Schools	
	Number	Percent	Number	Percent
First Language Not English	1,444	21.4	149,300	15.6
Limited English Proficient	365	5.7	59,337	6.2
Low Income	422	6.6	314,870	32.9
Total Population	6,397		957,053	

Source: Massachusetts Department of Elementary and Secondary Education.

Of the 6397 students whose health insurance status was reported, 78% had private insurance, 4.5% had public insurance, and 0.04 had no insurance (Table 3). The status of 18% of students was unknown.

TABLE 3. Health Insurance Status of Students (2011-2012)

		Type of Insurance		
	Number of Students	Private (Percent)	Public (Percent)	No Insurance (Percent)
Insurance	6,397	78.0	4.5	0.0

Source: *Status Reports* submitted by school nurses. Percentages may not add up due to rounding error.

School Health Services Activity

The primary goal of the Health Services Program is the delivery of health services to students. Toward that end, school nurses were required to report throughout the year the type and scope of school nursing activity in their buildings. These activities were divided into nine categories of data:

1) **Health encounters, including dispositions following assessment**
2) **Injury reports, early dismissals, and referrals for emergency health services**
3) **Medication management**
4) **Screenings**
5) **Medical procedures**
6) **Linkages to health care and insurance providers**
7) **Health education**
8) **Nursing case management**

1. Health Encounters

Each month, school nurses reported the total number of student health encounters. An "encounter" was defined as *any contact with a student during which the school nurse provided counseling, treatment, or aid of any kind.* Casual conversations fall outside this definition and were not counted. In addition, mandatory screenings (such as vision, hearing, BMI and postural) were not counted as encounters because these are routine population-based activities. Screenings were tracked separately, however.

- *Every* encounter includes nursing assessment and health education.
- An illness encounter may include illness assessment or acute illness situation. It excludes scheduled medication administrations (e.g. daily medication administration for ADHD) and scheduled procedures (scheduled glucose testing).
- Mental/Behavioral Health Support includes any encounter requiring active listening, anticipatory guidance, stress management, behavior modification/program support or evaluation of altered mental status. The primary reason for the encounter is related to a mental/behavioral health need. Mental/behavioral health services tend be under-reported as nurses often categorize an encounter according to the presenting complaint (e.g., headache) even if it is determined that the complaint has an underlying mental/behavioral health origin.

Between September 1, 2011 and June 30, 2012, 9 Lexington schools reported a combined total of 58,940 student health encounters. Eighty-seven percent of the student enrollment visited the health room at least once during the school year. "Illness assessment," "Injury/first aid," and "Scheduled medication administration" were the most common reasons for visits to the school nurse (Table 4). The number of encounters reported per school varied widely, with individual schools averaging between 482 to 1,809 encounters per month. The difference was not always due to school size, except for Lexington High School. While some students are seen several

times each month, some are never seen. The school nurse workload, measured by the number of encounters full time nurse logs each month, varied greatly across the schools, with the school nurse workload averaging 483 student encounters per month.

Health services were also provided to school staff (i.e., teachers and administrators). School nurses reported a total of 1,136 staff health encounters. Across the district, monthly staff visits ranged from 52 to 149 staff health encounters per month with an average of 114 visits per month.

Table 4. September 1, 2011 - June 30, 2012

	Students		Staff	
Type of Encounter	**Number**	**Percent**	**Number**	**Percent**
Illness Assessment	23,417	39.7	268	23.6
Injury/First Aid	19,436	32.9	241	21.2
Scheduled Medication Administration	3,644	6.2		
Scheduled Medical Procedures*	3,374	5.7		
Mental/Behavioral Health Support	756	1.3	2	0.2
Other	8,313	14.2	625	55.0
	58,940	100.0%	1,136	100.0%

*"Scheduled Medical Procedures" are those performed for preexisting conditions, which usually require an MD order.
Source: *Monthly Activities Reports*.

2. Injury Reports, Early Dismissals and Referrals for Emergency Health Services

An important function of school nursing practice is to provide on-site health services to students who are sick, injured, or experiencing a serious health emergency. Each month, schools tallied the number of on-campus injury reports, early dismissals due to illness, and referrals for emergency health services. After assessment and/or treatment by a school nurse, the majority (94.0%) of students visiting the nurse's office with an illness or injury complaint returned to the classroom to continue their studies (Table 5). These on-site services provide major benefits. Students who are treated on-site can be returned to the classroom with minimal interruption of their educational activities; working parents do not have to take time off from work to provide care; and the high cost of treatment in a doctor's office is avoided.

TABLE 5. Disposition After Illness/Injury Assessment
September 1, 2011- June 30, 2012

	Students		Staff	
Disposition	**Number**	**Percent**	**Number**	**Percent**
Returned to Class	55,396	94.0	N/A	
Dismissals	2,794	4.7		
Other*	750	1.3		
Total	58,940	*100*		

* Includes "Stayed in health office" and "Referred to counselor's office".
Source: *Monthly Activities Report* submitted by school nurses

When students had to be dismissed, it was usually the result of illness (91.9%) rather than injury (8.1%).

For injuries of a more serious nature, school nurses filed *injury reports*. Incident reports are filed on students when the injury requires a medical consultation; injury reports are filed on staff if the injury may result in lost work. For the 2011-2012 School Year, school nurses reported a total 124 student injury reports and 30 staff injury reports (Table 6):

TABLE 6. Number of Student and Staff Injury Reports
September 1, 2011 - June 30, 2012

Intent	Student		Staff	
	Number	Percent	Number	Percent
Unintentional	65	52.4	8	26.7
Intentional	1	0.8	0	-
Unknown intent	58	46.8	22	73.3
Total	124	100.0	30	100

Source: *Monthly Activities Reports* submitted by school nurses.

Of the student injury reports filed by school nurses, only one report involved the intentional infliction of injury (Table 7). This is significantly low compared to the state average of 9% injuries are intentional.

In addition, school nurses referred students to *urgent health care services* a total of 68 times.

- In 15 (22%) of these events, 9-1-1 or ambulance services were called.
- In the remaining 53 (77.9%) events, parents or others were called to transport the student to health services.

3. Medication Management

In 1993, the Massachusetts Department of Public Health promulgated regulations governing the administration of medications in public and private schools. The purpose of these regulations (105 CMR 210.000) is to provide minimum safety standards for the administration of prescription medications to students during the school day.

The school nurse's role in managing the medication administration program for the district is broad in scope. In addition to developing district-wide medication policies in collaboration with the school committee, school administration, and school physician, the school nurse:

- administers medications to students (including monitoring students' response to medications);
- delegates the administration of selected medications to appropriately trained school staff
- ensures the proper training and supervision of these designated staff; and
- establishes a formal record-keeping system for the district's medication administration program.

Implicit in the description of medication administration is the nurse's responsibility for the following: development of the medication administration plan; assessment of the child prior to administering each medication; follow-up evaluation of medication efficacy and side effects; and ongoing communication with parents and providers.

School nurses tracked the number of *prescriptions* that had been ordered for their students. Throughout the year, the total number of prescriptions reported to school nurses averaged per month for the 9 schools (Table 7). Note that because some students had more than one prescription, the number of prescriptions is larger than the number of students with prescriptions. Among prescriptions taken on a scheduled basis, psychotropic medications were the most common, while among prescriptions taken on an "as-needed" (PRN) basis, analgesics and asthma medications were the most common.

TABLE 7. Number of Student Prescriptions Reported to School Nurses (Monthly Average) September 1, 2011 - June 30, 2012

Medication Class	Medication Prescriptions		
	Scheduled (All Schools)	PRN (As needed) (All Schools)	Total (Daily & PRN) Medications
Analgesics	0.2	78.3	78.5
Antibiotics	8.6	4.6	13.2
Anticonvulsants	2.1	8.2	10.3
Antihypertensive	-	2.8	2.8
Antihistamines	0.3	203.9	204.2
Asthma Medications	2.2	240.2	242.4
Epinephrine	0.0	325.7	325.7
Insulin	0.7	19.7	20.4
Psychotropic	20.1	21.8	41.9
Other Prescription/OTC Meds	10.2	70.1	80.3
Total	44.4	987.4	1,031.8
Row Percent	4.3%	95.7%	100.0%

Source: *Monthly Activities Reports* submitted by school nurses.

Table 7 shows the *at-school* prescriptions reported by the school nurse. The at-school prescriptions reflect the medications that are to be administered at school, during school hours, by the school nurse. These rates *understate* the actual number of students taking prescription medications, however. There are two reasons for this. First, students who self-administer at

school without the knowledge of the nurse are not counted in the nurse's data reports. This type of "counting error" may disproportionately lower reported prescription rates for certain categories of students. Middle and high school students, for example, might be more likely to self-administer than elementary school students, and, therefore, would be less likely to be counted in the numbers reported by the school nurse. Second, medications taken only at home, as some types of *daily* medications, are unlikely to be reported to school nurses. For example, the decrease in the at-school psychotropic prescription rate over the last few years may be due to the use of new one-dose slow-release psychostimulant drugs, which are administered at home and are not reported to school nurses. On the other hand, PRN medications (medications prescribed for administration on an 'as needed' basis) such as medications taken to treat asthma attacks or allergic reactions, are more likely to be reported to the school nurse because of the potential need for administration during the school day. As a result, prescription rates for these medications may be better estimates of the true overall prescription rate for the school age population.

An average of 855.3 doses of prescription medication was given each month. Psychotropic medication was the most commonly administered type of scheduled prescription medication, and asthma medication was the most commonly administered type of PRN prescription medication.

TABLE 8. Average Number of Medication Doses by Type Administered to Students by School Nurses* Per Month September 1, 2011- June 30, 2012

Medication Class	Medication Schedule					
	Scheduled Doses		PRN Doses per Prescription		PRN Doses per Protocol**	
	N	%	N	%	N	%
Analgesic	0.1	0.0	22.4	5.9	97.3	98.7
Antibiotic	24.1	6.4	0.8	0.2	0.0	0.0
Anticonvulsant	21.4	5.7	0.4	0.1	0.0	0.0
Antihypertensive	0.0	0.0	1.4	0.4	0.0	0.0
Antihistamine	1.4	0.4	3.8	1.0	1.2	1.2
Asthma	6.1	1.6	75.4	19.8	0.0	0.0
Epinephrine	0.0	0.0	0.0	0.0	0.1	0.1
Insulin**	1.2	0.3	243.6	64.1	0.0	0.0
Psychotropic	213.7	56.7	4.8	1.3	0.0	0.0
Other	108.8	28.9	27.3	7.2	0.0	0.0
TOTAL	376.8	100.0	379.9	100.0	98.6	100.0

* Includes supervised self-administration ** These are protocols for non-prescription medications written by school physician.
Source: *Monthly Activities Reports* submitted by school nurses.

School nurses also administered a total of 265 doses of medication to school staff during the school year.

4. Health Screenings

Public schools in Massachusetts are required by law to conduct postural, hearing, vision, and height/weight screening on all students. School nurses are responsible for screening students and making referrals for follow-up care when needed. Parents are responsible for making appointments for the follow up care specified in the referral, and for ensuring that students keep the appointments. During the school year, school nurses conducted the following number of required and student health screenings (Table 9). These numbers represent *initial* screenings, and do not include *re-screenings*.

TABLE 9. Yearly Student Health Screenings and Referrals
School Year 2011-2012

Type of Screening	Screenings		Referrals		Completed Referrals*	
	Number	% of All Students	Number	% of Screened Students	Number	% of Referred Students
Hearing	2,700	42.2	13	0.5	11	84.6
Height/Weight	1,923	30.1	44	2.3	44	100.0
Postural	2,515	39.3	49	1.9	37	75.5
Vision	3,708	58.0	194	5.2	173	89.2

Source: *Status Reports* submitted by school nurses.
* A "completed" referral is one in which an appointment for follow-up care has been made and kept.

Body Mass Index (BMI) Screenings

The Centers for Disease Control and Prevention recommends the use of Body Mass Index (BMI) measurement to screen for obesity in children. BMI is a number calculated from height and weight, and is considered a reliable indicator of body fat in most people. For children and teens, BMI is age and sex specific. The measure is plotted on BMI growth charts to reveal the child's percentile ranking, which indicates the relative position of the child's BMI among children of the same age and sex. The BMI percentile can then be used as a screen for overweight or underweight. BMI percentiles derived from direct measurements should be more accurate than those derived from self-reports in student surveys. Nurses were asked to complete BMI screenings for all students in grades 1, 4, 7 and 9. Overall, 18.2% of the students screened were overweight or obese (12% overweight, 6% obese. BMI screening results are sent to a student's parents.

TABLE 10. BMI Screening Results by Grade 2011-2012									
		Grade 1		Grade 4		Grade 7		Grade 9	
		Male	Female	Male	Female	Male	Female	Male	Female
	Total students screened:	245	235	248	244	260	266	213	199
Weight category*	**BMI Percentile Range**	%	%	%	%	%	%	%	%
Underweight	Less than the 5th percentile	2.9	4.7	2.4	2.0	6.2	3.4	2.8	1.5
Healthy Weight	5th percentile to less than the 85th	78.0	78.7	71.8	80.3	77.3	83.8	70.9	87.9
Overweight	85th to less than the 95th percentile	13.1	11.1	16.5	13.5	9.6	6.8	19.2	7.5
Obese	Equal to or greater than the 95th	6.1	5.5	9.3	4.1	6.9	6.0	7.0	3.0
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Subtotal: Overweight or Obese		19.2	16.6	25.8	17.6	16.5	12.8	26.3	10.6

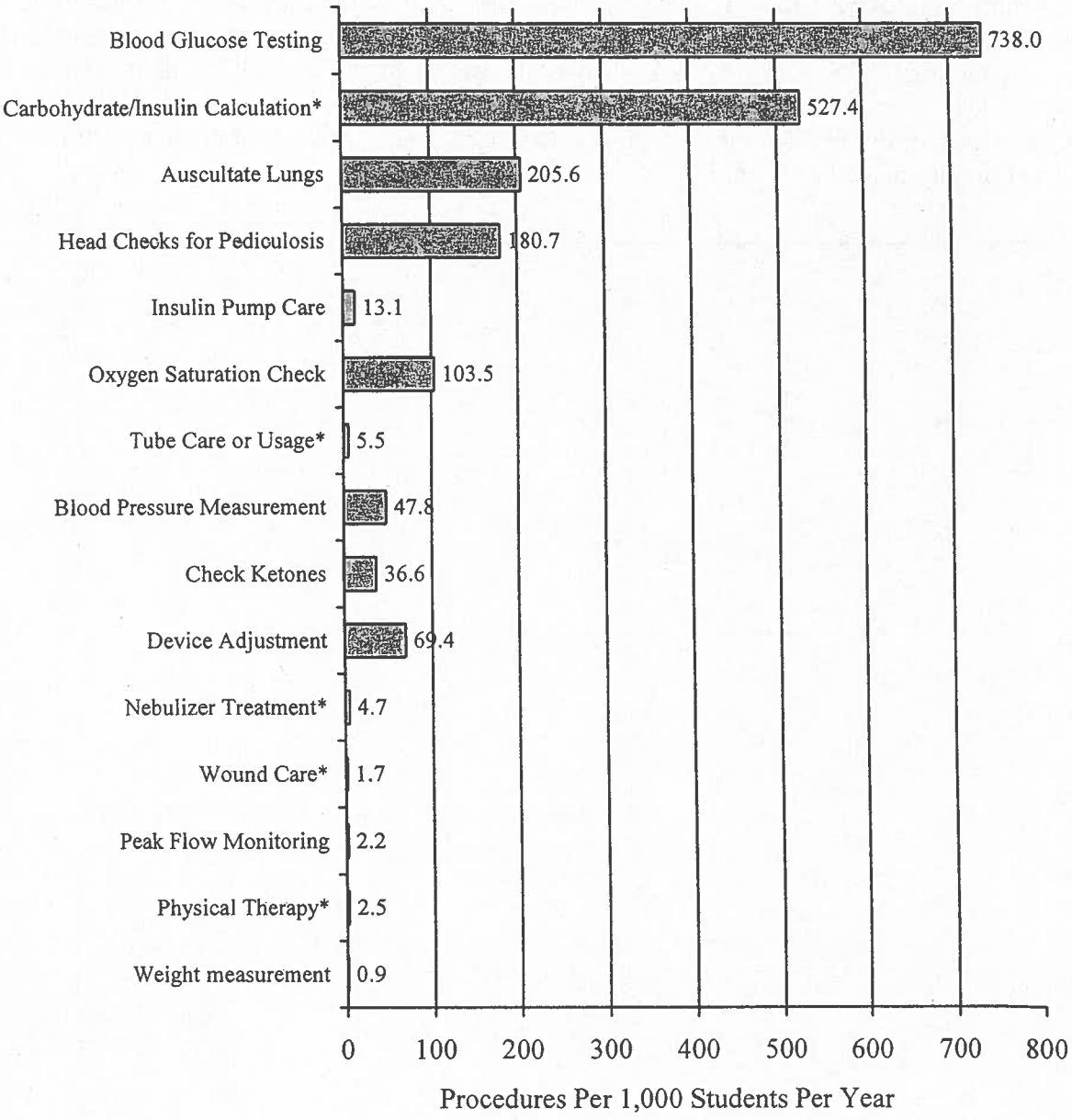
"Weight category" is based on sex- and age-specific Body Mass Index (BMI) percentiles

* For children and adolescents, the CDC uses the term "overweight" instead of "obese" and the term "at risk of overweight" instead of "overweight." The same labels that are used with adults to avoid confusion over the terminology in line with recommendations recently released by a committee of experts representing 15 medical and health organizations (Expert Committee, 2007).

5a. Medical Procedures

School enrollment of children assisted by medical technology has increased in recent years. This phenomenon presents multiple challenges for school administrators, parents and guardians; school health services personnel, teachers, and students. School nurses collected information on the number and type of procedures that involved medical technology, as well as other medical procedures performed by school nurses. Consistent trends in the school health data may be associated with emergent public health issues. For example, the increase in Blood Glucose Testing and Insulin Pump Care may be a consequence increasing diabetes prevalence in face of the current obesity/diabetes epidemic.

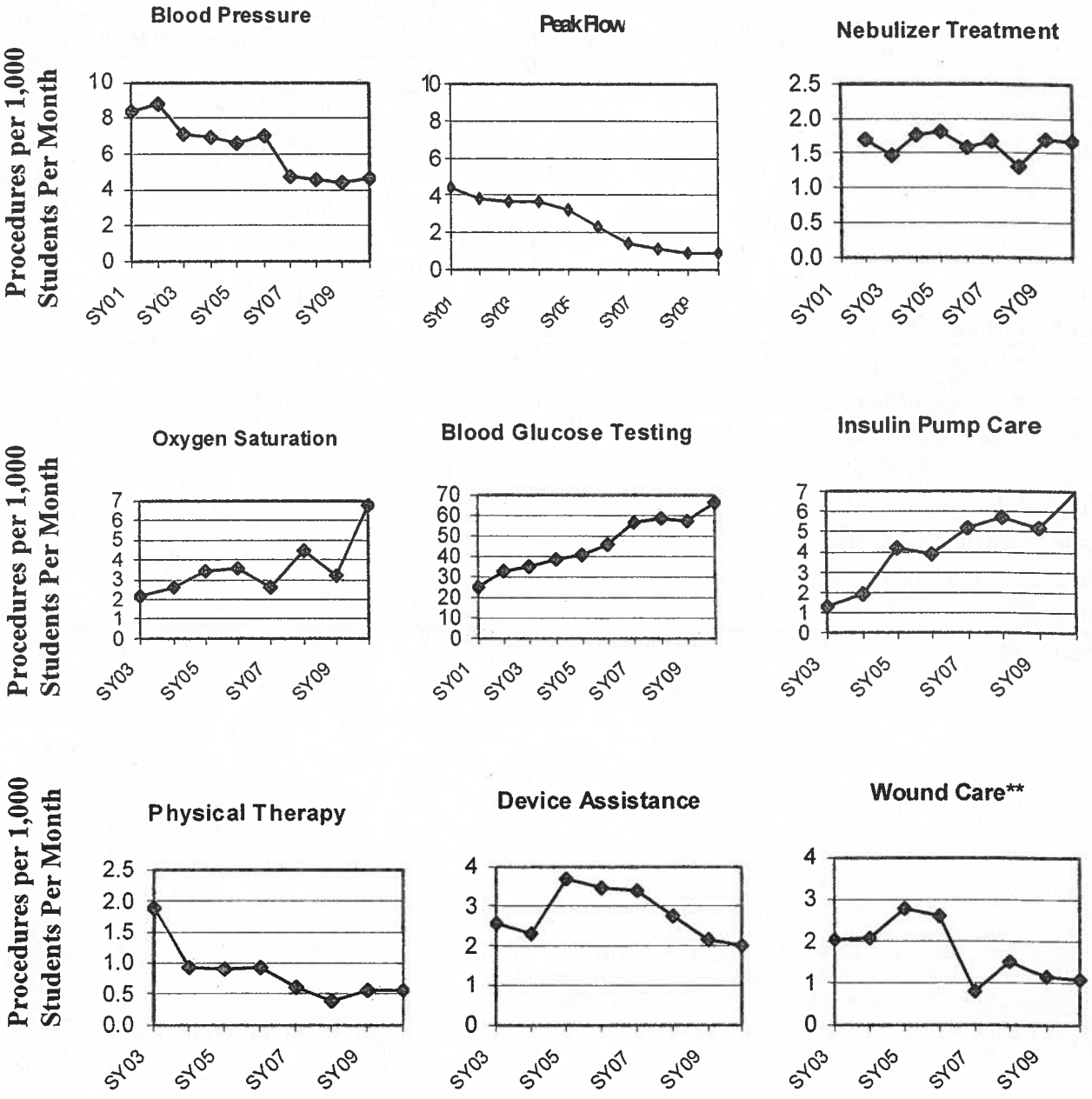
FIGURE 1. Total Medical Procedures (Per 1000 Students)
Sepember 1, 2011 - June 30, 2012



Source: *Monthly Activities Reports* submitted by school nurses.
Note: Rates were calculated from student enrollment of 6,397.

The procedures listed in Figure 2 required differing amounts of nursing time. Those procedures identified with an asterisk (*) require significant amounts of professional nursing care, health education and monitoring. Many of these procedures were formerly performed in a hospital setting.

*FIGURE 3. State-wide Procedure Rates per 1,000 Students per Month**
School Years 2000-2001 through 2009-2010



*Among those districts performing the procedure at least once.
** The definition of Wound Care was changed in 2007, so that dressing changes are no longer counted.
Note that in 2002-2003, data was available for only 4 out of 10 months. If there are no data points then data was not available for that year. Rates shown are those reported by the typical (median) district in the ESHS program.
Source: *Monthly Activities Reports* submitted by districts in the Essential School Health Services program

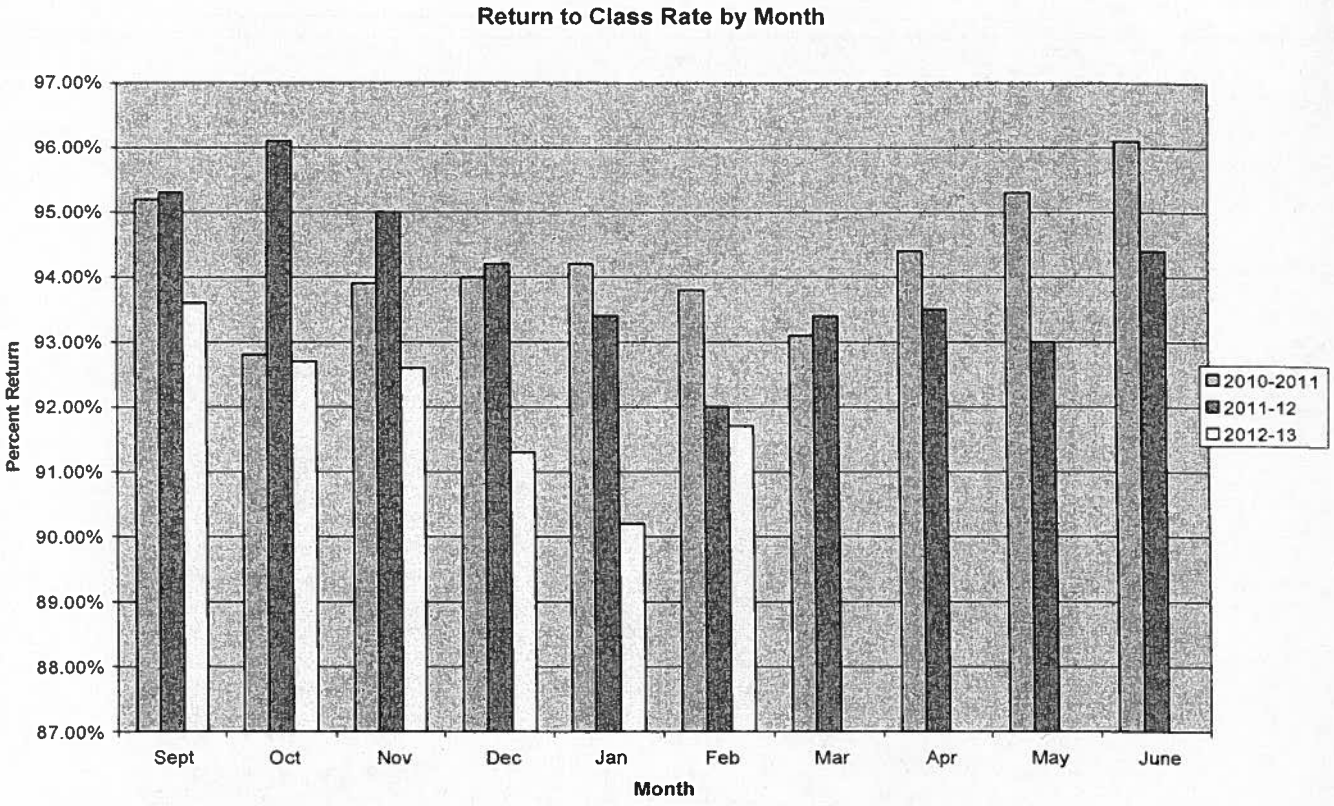
While some procedure rates have declined (blood pressure monitoring, wound care), procedures related to diabetes management (blood glucose monitoring and insulin pump are) have increased.

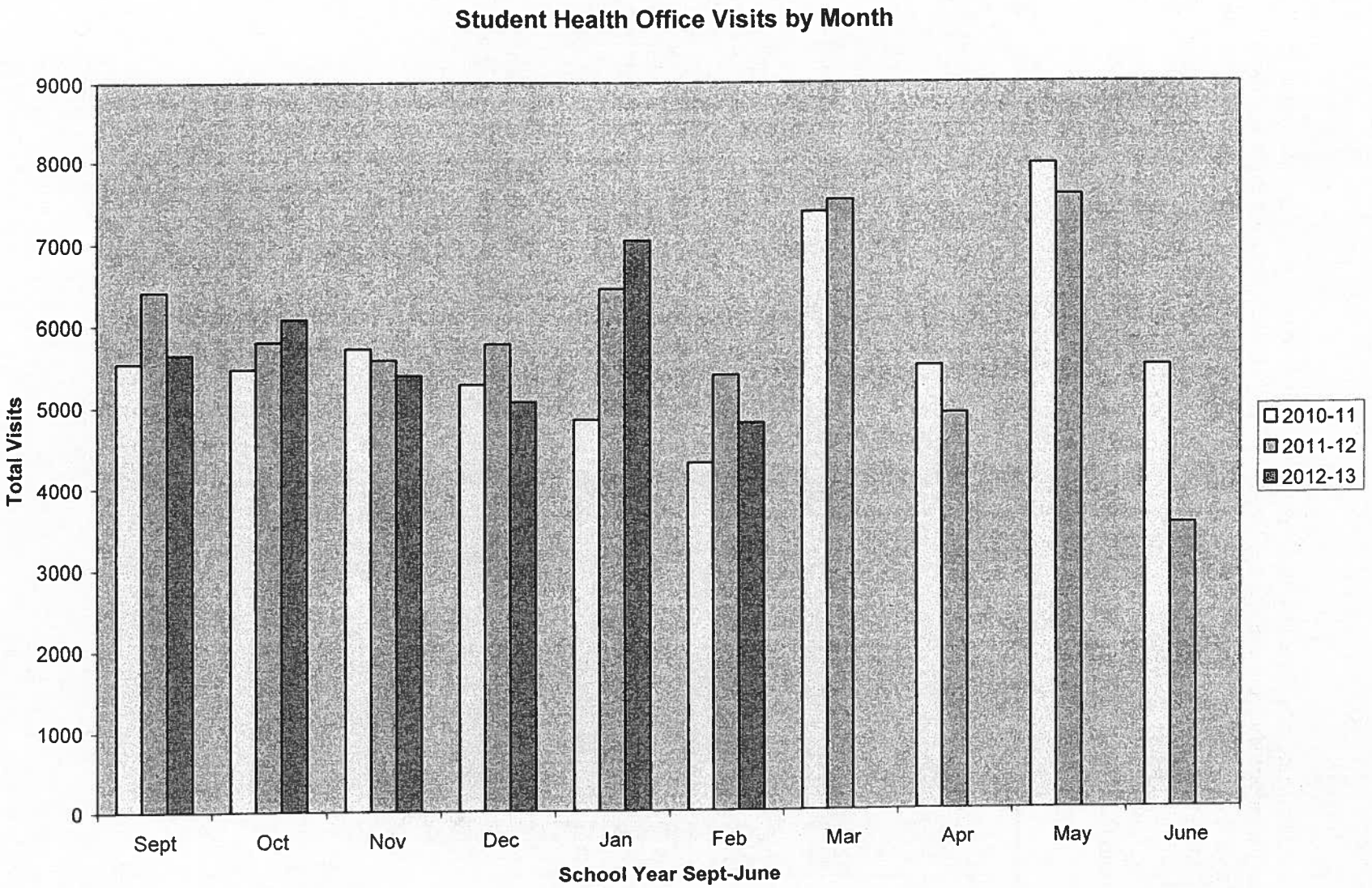
Yearly medical procedure totals are summarized in Table 11:

TABLE 11 Medical Procedure Types and Totals Type of Procedure	Number of Procedures Per Year	
	Students	Staff
Auscultate Lungs	1,315	26
Blood Glucose Testing	4,721	4
Blood Pressure Monitoring	306	143
Carbohydrate/Insulin Calculation	3,374	0
Check Ketones	234	0
Head checks for Pediculosis	1,156	13
Insulin Pump Care	84	0
Nebulizer Treatment	30	0
Orthotic device adjustment	469	1
Oxygen Saturation Check	662	27
Peak Flow Monitoring	14	1
Physical Therapy	16	2
Tube Care or Usage (b)	35	0
Weight measurement (d)	6	12
Wound Care	11	0
Total	12,433	228

a) Naso-Gastric, Gastronomy or Other Feeding Tube Care or Usage
b) Weight management for medical conditions not related to screening
c) Includes orthotic or prosthetic device adjustment, wheelchair assistance, and crutch walking instructions.
Source: *Monthly Activities Reports* submitted by school nurses.

The Return to Class rate is reported to the Department of Elementary and Secondary as data showing the percent of students visiting the Health Office who were able to return to class. Research has shown how schools with professional school nurses have a higher return to class rate than schools without the support. It has also been found in school districts that do not employ school nurses that every classroom teacher spends on average a total of 26 minutes a day dealing with children's health issues. School nurses are encouraged to strive for a minimum of 92% Return to Class rate.




Student Health Office Visits by Month
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Total Visits
Sept
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
June
School Year Sept-June
2010-11
2011-12
2012-13

6. Linkages to health care:

School nurses identify students without a primary care provider and, in consultation with their families, refer them to appropriate health care services. School nurses also referred many students to their existing primary care providers. During the 2011-2012, school nurses reported the following:

- A total of 757 students requiring primary care services were identified and referred to primary care providers. Those students without primary care providers were referred to new providers. Referrals included:
    - 44 referrals to new primary care providers (5.8% of total primary care referrals).
    - 713 referrals to existing primary care providers (94.2% of total primary care referrals). These referrals did not include referrals made for hearing and vision screening activity.

In addition, school nurses provided the following referrals for students during 2011-2012:

- 29 referrals to dentists.
- 12 referrals for mental/behavioral health services.

7. Health Education

School nurses are often called upon to provide health education and deliver presentations. In this teaching role they provide information to students, staff, and community members on topics such as nutrition education, life threatening allergies, and human growth and development. Throughout the 2011-2012, school nurses reported making 24 classroom presentations. The types of presentations given most frequently were fitness/nutrition/wellness, life threatening allergies, and oral health/hygiene (Table 12). During the school year, school nurses in funded districts made an average of 12.2 presentations per nurse, while the average in partner districts was 9.8 presentations per nurse, the average in collaboratives was 4.6 presentations per nurse, and the average in private schools was 2.9 presentations per nurse.

TABLE 12. Number of Wellness/Safety Presentations and Number of Participants, by Topic Area September 1, 2011- June 30, 2012

Topic Area	Number of Presentations	Number of Participants Per Month		
		Students	Staff	Community
Blood Borne Pathogens	1.0	-	143.0	90.6
CPR/AED Programs	9.0	175.0	69.0	-
Environmental Health	1.0	-	100.0	-
Growth/Development	20.0	397.0	20.0	98.0
Life Threatening Allergies	16.0	125.0	1,045.0	-
Mental Health/Wellness	1.0	-	-	150.0
Oral Health/Hygiene	1.0	15.0	-	-
Other	24.0	667.0	141.0	101.0

Source: *Monthly Activities Reports* submitted by school nurses.

Health education was also promoted through the preparation of flyers and mailings. During the school year, school nurses were involved in the creation of a total of 171 health promotion / education flyers or mailings.

- A total of 15 assessments were done of students for suspected substance abuse.

8. Nursing Case Management

Data from the monthly activities report revealed that, beyond providing direct care to students, school nurses spent a significant portion of their day performing case management duties that included communication with families, other school staff, and community health care providers about student health concerns.

- a total of 6,210 health counseling and education communications with parents (including phone calls and letters, but excluding meetings and home visits)
- a total of 2,343 communications with other school staff about student health issues.
- a total of 157 communications with other agencies and health providers about student health issues
- a total of 1,055 case management meetings
-

The following table shows median case-management activity levels per school nurse FTE per year across the 9 schools:

Table 13. September 1, 2011 - June 30, 2012

Type of Activity	Activities Per FTE
Communications with parents	509.0
Communications with staff	192.0
Communications with community agencies/providers	12.9
Case management meetings	86.5

Source: *Monthly Activities Reports* submitted by school nurses.

For children with special health care needs, nursing case management involves the development of Individual Health Care Plans (IHCPs) designed to maximize their potential for learning. An IHCP, usually developed by the school nurse in conjunction with the student's family, the school physician, other school staff, and relevant community health care providers, is an individualized care plan that stipulates a student's specific medical, nursing, emergency care, and educational needs while in school during the school day. IHCPs are reviewed on a regular basis to ensure that students receive the appropriate health care they need during the school day.

During the 2011-2012 school year, school nurses reported a total of 439 IHCPs.

Program Development

School nurses perform program planning and development activities in coordination with other school district professionals, in areas such as policy development, crisis management, and emergency preparedness. In addition, nurses attend meetings that contribute to their professional development. Meetings may be held at a specific school building or at the school district level. During the 2011-2012 school year, school nurses attended 266 program and professional development meetings (Table 14).

TABLE 14. Number of Program Development Meetings Attended by School Nurses, by Topic Area

September 1, 2011 - June 30, 2012

Topic Area	Number of Meetings
Crisis Management	22.0
Emergency Preparedness	16.0
Mental Health	17.0
Policy Development	33.0
Professional Development	74.0
Other	104.0
Total	266.0

Source: *Monthly Activities Reports* submitted by school nurses.

Students with Special Health Care Needs

1. Types of Special Health Care Needs

School nurses provide care for students with a wide variety of special health care needs. Table 15 shows the rates by type of condition. These rates are based on information provided to the school nurse by the student's primary care provider, who conducts a physical examination and submits a School Health Record once every 3 to 4 years. This information is supplemented by parent reports (on emergency cards and health information forms) submitted annually. Conditions not requiring special nursing care in school may be less likely to be reported to school nurses. For those conditions, these data may under-count the true rate in the student population. In Lexington Public Schools, a total of 1522 students with special health care needs were reported to school nurses (23.8% of enrollment). The most commonly reported physical/developmental condition is asthma (Table 15). Other common conditions include allergies, migraine headaches, seizure disorder, and cardiac conditions. The most commonly reported behavioral/emotional condition is Attention-Deficit/Hyperactivity Disorder (ADHD).

TABLE 15: Number of Students With Special Health Care Needs Reported to School Nurses

September 1, 2011 - June 30, 2012

	Number	Rate Per 1,000 Students
Physical/Developmental Conditions		
Allergies:		
Bee Sting Allergies	20	3.1
Food Allergies	417	65.2
Latex Allergies	13	2.0
Asthma	617	96.5
Autoimmune Disorders (Arthritis, Lupus, etc.)	4	0.6
Blood Dyscrasias:		
Hemophilia	1	0.2
Sickle Cell Disease	4	0.6
Other Blood Dyscrasias	1	0.2
Cancer	3	0.5
Cardiac Conditions	38	5.9
Celiac Disease	13	2.0
Cystic Fibrosis	3	0.5
Diabetes Type I	21	3.3
Diabetes Type II	2	0.3
Inflammatory Bowel Disease (IBS, Crohn's, etc)	15	2.3
Migraine Headaches	44	6.9
Neurologic Conditions:		
Cerebral Palsy	9	1.4
Spina Bifida	-	0.0
Seizure Disorder	30	4.7
Neuromuscular Degenerative Disorder	4	0.6
Other Physical/ Developmental conditions	51	8.0
Behavioral/Emotional Conditions		
ADHD/ADD	237	37.0
Autism	95	14.9
Depression	46	7.2
Eating Disorders	10	1.6
Other Behavioral/Emotional conditions	91	14.2
Total Special Health Care Needs	1,772	

Source: *Status Reports* submitted by school nurses.

Cardiovascular Health and Automated Electronic Defibrillators (AEDs)

An automated external defibrillator (AED) is a portable device used to restore normal heart rhythm to patients in cardiac arrest. If cardiac arrest is not treated within a few minutes, the condition is fatal.

All school buildings have at least one AED, including Central Office. School nurses are responsible for maintaining the AED battery and pads. They are trained annually in the use of the AED.

References

Chabra, A. & Chavez, G. (2000). A comparison of long pediatric hospitalizations in 1985 and 1994. Journal of Community Health, 25(3), 199-210.

Cedar Rapids Community School District v. Garret F, 119 S.Ct. 992, 29 IDELR 966 (U.S. 199). To view the full decision, go to: http://supct.law.cornell.edu/supct/html/96-1793.ZS.html

Centers for Disease Control and Prevention (nd). Number (in Millions) of Civilian/Noninstitutionalized Persons with Diagnosed Diabetes, United States, 1980–2006. Retrieved January 11, 2010 from http://www.cdc.gov/diabetes/statistics/incidence/fig1.htm

Clements KM, Barfield WD, Ayadi F, Wilber N. Preterm birth-associated cost of early intervention services: an analysis by gestational age. Pediatrics 2007;119:e866–e874.

Coffman JM, Cabana MD, Halpin HA, Yelin EH. (2008) Effects of asthma education on children's use of acute care services: a meta-analysis. Pediatrics. 121(3):575-86.

Expert Committee Recommendations on the Assessment, Prevention and Treatment of Child and Adolescent Overweight and Obesity (2007). Retrieved January 8, 2008 from http://www.ama-assn.org/ama1/pub/upload/mm/433/ped_obesity_recs.pdf.

Hannon, TS; Rao, G; Arslanian, SA (2005). Childhood Obesity and Type 2 Diabetes Mellitus. Pediatrics, 116 (2), 473-480

Leslie, L., Sarah, R., & Palfrey, J. S. (1998). Child health care in changing times. Pediatrics, 101(4), 746-751.

Massachusetts Department of Elementary and Secondary Education (2008). State Profile: Enrollment Data. Retrieved October 7, 2008 from http://profiles.doe.mass.edu/.

Massachusetts Department of Public Health (2009). Data Health Brief: Epinephrine Administration In Schools (School Year 2007-2008).

McPherson M, Arango P, Fox H, Lauver C, McManus M, Newacheck P, Perrin J, Shonkoff J, Strickland B. (1998) A new definition of children with special health care needs. Pediatrics, 102(1):137–140.

Palfrey, J.S., Haynie, M., Porter, S., Bierle, T., Cooperman, P., Lowcock, J. (1992). Project school care: Integrating children assisted by medical technology into educational settings. Journal of School Health, 62(2), 50-54.

Pbert, L., Osganian, S., Gorak, D., Druker, S., Reed, G., O'Neill, K., Sheetz, A. (2006). School Nurse-delivered Adolescent Smoking Cessation Intervention: A Randomized Controlled Trial, Preventive Medicine: 43: 313-320.

Pennington N & Delaney E. (2008). The number of students sent home by school nurses compared to unlicensed personnel. Journal of School Nursing 24(5):290-7.

Raymond JA. (2009). The integration of children dependent on medical technology into public schools. Journal of School Nursing;25(3):186-94. Epub 2009 Apr 10.

Schutte, E. B., Price, D. L., & James, S. R. (1997). Thompson's Pediatric Nursing. Philadelphia: W. B. Saunders.

Sheetz, A, Developing School Health Services in Massachusetts: A Public Health Model. Journal of School Nursing. 2003; 19(4): 204-211.

Small, M.L., Majer, L.S., Allensworth, D.D., Farquhar, B.K., Kann, L., & Pateman, B.C. (1995). School health services. Journal of School Health, 65(8), 319-326.

Smolensky, E. & Gootman, JA. (Eds.). (2003). Working Families and Growing Kids: Caring for Children and Adolescents. Washington: National Academies Press. Retrieved February 8, 2011 from http://www.nap.edu/catalog.php?record_id=10669.

Thurber, F., Berry, B., & Cameron, M.E. (1991). The role of school nursing in the United States. Journal of Pediatric Health Care, 5(3), 135-140.

Uphold, C.R. & Graham, M.V. (1993). Schools as centers for collaborative services for families: A vision for change. Nursing Outlook, 41(5), 204-211.

U.S. Bureau of the Census. (2000). Statistical Abstract of the United States (120th ed.). Washington, D.C.; 60 & 655.

U.S. Department of Health and Human Services. (2000). U.S. Public Health Service, Report of the Surgeon General's Conference on Children's Mental Health. Washington, DC: Author. Retrieved January 8, 2010, from http://www.surgeongeneral.gov/topics/cmh/cmhreport.pdf

Wold, S.J. (2001). School health services: History and trends. In N.C. Schwab & M.H.B. Gelfman (Eds.), Legal issues in school health services (pp. 7-54). North Branch, MN: Sunrise River Press.

Wyman, L. (2005). Comparing the number of ill or injured students who are released early from school by school nursing and non-nursing personnel. Journal of School Nursing, 21(6), 350-355.

APPENDIX A

Scope of Service
Essential School Health Services Program

COMPONENTS

Each program must meet or continue to meet the following seven components as described below:

1. **School health service program infra-structure**
2. **Collaboration with the comprehensive, coordinated health education program, tobacco control program, etc.**
3. **Plan for linkage of students with primary care providers, dental providers, behavioral/mental health programs (as needed), community prevention programs, and health care insurance.**
4. **Development of a management information system.**
5. **Implementation of performance improvement (continuous quality improvement) and evaluation programs.**
6. **Services to private schools located in the applicant's community**
7. **Collaboration/consultation/networking among school nurses.**

APPENDIX B

Data Collection Methods

Contractual obligations require districts in the ESHS programs to submit a monthly report to MDPH. This report, the ESHS **Monthly Activities Report**, provides a detailed, standardized summary of the health services activities that took place in the district during the prior month. It includes a count of the number of encounters, medications administered, medical procedures, and other types of services provided.

Information for these reports is gathered from each school nurse. In most districts, school nurses enter health encounter data into a computer database loaded on a computer located in the school health office. The database facilitates data reporting as well as helps the nurse maintain systematic records and schedule follow-ups.[4] Nurses are encouraged to enter information during or directly after a health encounter. Each district in the ESHS program selects its own database software. In Lexington, the school nurses use Health Master Software. The data base is networked with all schools and permits the health services coordinator to run district-wide data reports. Although districts use different software applications and some districts tabulate data manually, all districts are required to tabulate their data the same way and to submit a standard data report to MDPH. In any event, information is gathered from each school nurse in the district, tabulated, and entered into the Monthly Activities Report form in summary (or aggregate) form.

In addition, districts in the ESHS programs submit **status reports** once a year. This report measures progress in meeting program objectives, and includes performance measures relating to health services infrastructure, MIS development, linkages to all aspects of the health delivery system, and quality evaluation. It also summarizes the number of health screenings performed and health surveys administered during the school year. The mentored school districts in the program submit this report once a year, beginning in 2009-2010.

The statistics in this report were derived from the monthly activities reports.

Data Analysis Methods

In order to reduce the potential for confusion, the statistical concepts and terms used in this report are described below.

The **monthly average** for a particular school was calculated by adding the total number of events or encounters that occurred in a particular building during the evaluation period and dividing that total by the number of months included in that evaluation period. Because it is awkward to refer constantly to the "monthly average for the school" or the "school-based monthly average," these data are referred to as the **school average**. These two terms--the

[4] Paper logs are still used to record data elements that are not typically included in most school health software programs. For example, one item that is usually logged by hand is "Number of support group meetings."

monthly average and school average--are used interchangeably in this report. All monthly averages in this report were calculated over the same ten-month period (September through June).

Wherever possible, standard units of analyses (*rates*) are used, as they facilitate both cross-school and historical comparisons, which can provide context and meaning to the statistics. The standard units of analysis that were used most frequently in this report are the monthly rate per 1,000 student health encounters, the monthly rate per 1,000 enrolled students, and the monthly rate per full-time equivalent (FTE) nurse. The **monthly rate per 1,000 student health encounters** is calculated by dividing the monthly average for that indicator by the total number of student health encounters in that district and multiplying the result by 1,000. Similarly, the **monthly rate per 1,000 enrolled students** is calculated by dividing the monthly average by the total number of enrolled students in that district and multiplying the result by 1,000. Rates per thousand enrolled students were calculated utilizing October student enrollment figures. Finally, the **monthly rate per full-time equivalent (FTE) nurse** is calculated by dividing the monthly average by the total number of Registered Nurse FTEs in the district. Sometimes the rate is not based on an average of *monthly* data but on aggregate data for the full year. For example, **the rate of health screenings per 1,000 students** is determined by dividing the total number of screenings *for the whole year* by the number of students enrolled and multiplying the result by 1,000.

Data Limitations

This report focuses on the delivery of school health services by nursing staff. Therefore this report should not be used to make generalized statements about health services in all Lexington Public schools. Furthermore, caution should be exercised when comparing ESHS statistics across years.

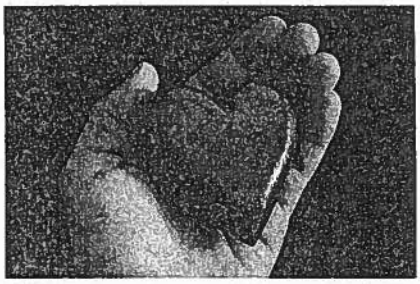
The descriptive data presented here also do not capture the dynamic and multi-faceted nature of health services delivery in a school system, which would require in-depth qualitative analysis of the program participants. Differences in data collection and data tabulation procedures may account for some of the variability observed across schools. It is impossible to control for factors such as data-entry errors, consistent misinterpretation of data elements, and numerical "guesstimates". Some of these data quality problems can lead to significant under- or over-counting. Finally, interpretation of the data is limited because we have not attempted to analyze the influence of school district demographics or other participant differences.

This report represents a preliminary attempt to measure the health services activity in the Lexington Public Schools system. Improvements in data collection procedures, data collection tools, and data collection instructions and training occur on a continuing basis, leading to corresponding improvements in data validity and reliability.

LEXINGTON SCHOOL HEALTH SERVICES

Jill Gasperini RN, MN
Nurse Leader
April 30, 2013

"THE SCHOOL NURSE IS THE HEART OF THE SCHOOL"



LEXINGTON SCHOOL NURSES

LEXINGTON SCHOOL NURSES

- 13.0 FTEs – Ratio of 1 nurse per 500 students
  - Ratio includes Nurse Leader position
  - Started with 11.0 FTE in 2007 (1 per 555)
- Over half have advanced degrees
  - Three Nurse Practitioners, 6 Masters Degrees
  - Juris Doctorate
  - Two in process of getting Masters
  - Three hold National Certification in School Nursing

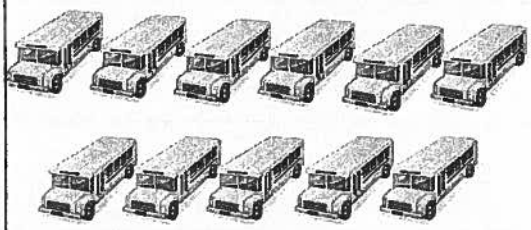
58,940 office visits
Out-of-the-Park Volume

- Fenway Park holds 37, 477
- TD Garden holds 17, 565 capacity
- Still not enough seats for what we did last year!

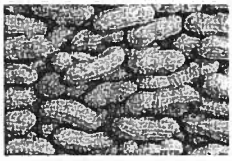
LPS Vision Statement

- "...All children get what they need, when they need it..."
- 23.8% of students have a special health care need
- Asthma...617 students
- Food Allergies...417 students
- Diabetes...21 students
- Seizure disorder... 30 students
- Autism...95 students
- Depression...46 students

Asthma
9.8% of student body

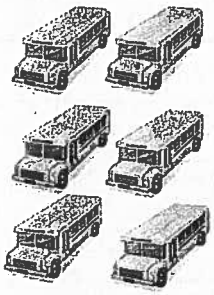


Life Threatening Allergies



Life Threatening Allergies

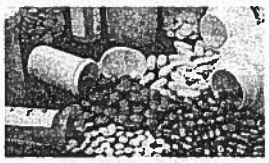
- Over 350 EpiPen prescriptions
- 20% unknown LTA reactions 1st time while at school
- Food Free Celebrations
- Principal and School Nurse approval for food in curriculum



School Nurses Oversee Medication Administration

1, 031 Prescriptions

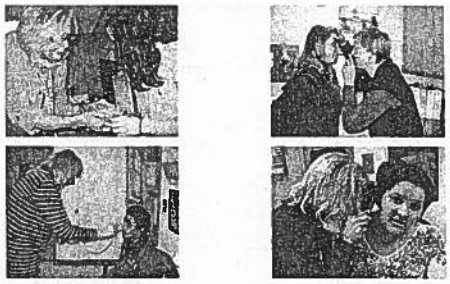
- Majority - 95.7% - are as needed (PRN)
  - EpiPens, Inhalers, Seizure Medication, Insulin
- 855 doses given per month on average
- Majority of PRN dosing is for Insulin
- Psychotropic meds are most frequently scheduled medication



School Nurses Screen

- 194 students referred for vision problems
- 13 students referred for hearing problems
- BMI screening...18.2% overweight or obese
- 2,515 students screened for scoliosis with 49 referred

Caring Starts with Assessment



Diabetes Care

Flu Clinics

IMMUNIZATION COMPLIANCE

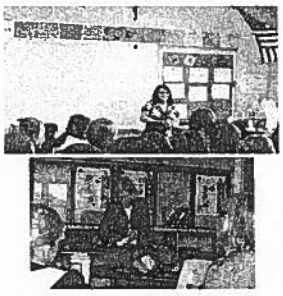
- Immunizations must be in compliance with state regulations to be in school
  - Measles, mumps, rubella, chicken pox, polio, Hepatitis B
- Homeless children exempt from regulations
- Complicated schedule that requires close scrutiny and maintenance
- We are 99% in compliance with state law

Mental Health

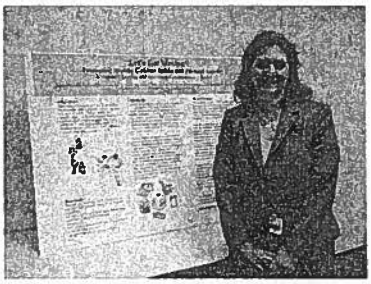
- 756 visits required mental health interventions
- 12 visits required mental health referrals for services
- School nurses use calming, coping and reassurance techniques

School Nurses Teach

- Human Growth and Development
- CPR and AED training
- Life Threatening Allergies and EpiPens
- Infection Control and Universal Precautions
- Emergency Procedures



Wellness Activities



School Nurses Unsung Heroes

- Saving lives
- Enhancing student learning
- Understanding the risks of child safety while at school
- Knowing about every child in the building
- Linking the family and child with the medical community
- Giving compassion through listening

"A child must be healthy to learn and learn to be healthy"
Jocelyn Elders, MD

P.S. School Nurses Day is May 8th!