

**SJUSD School Nurse Demonstration Project  
Year 5 Evaluation Report (2011-12)**

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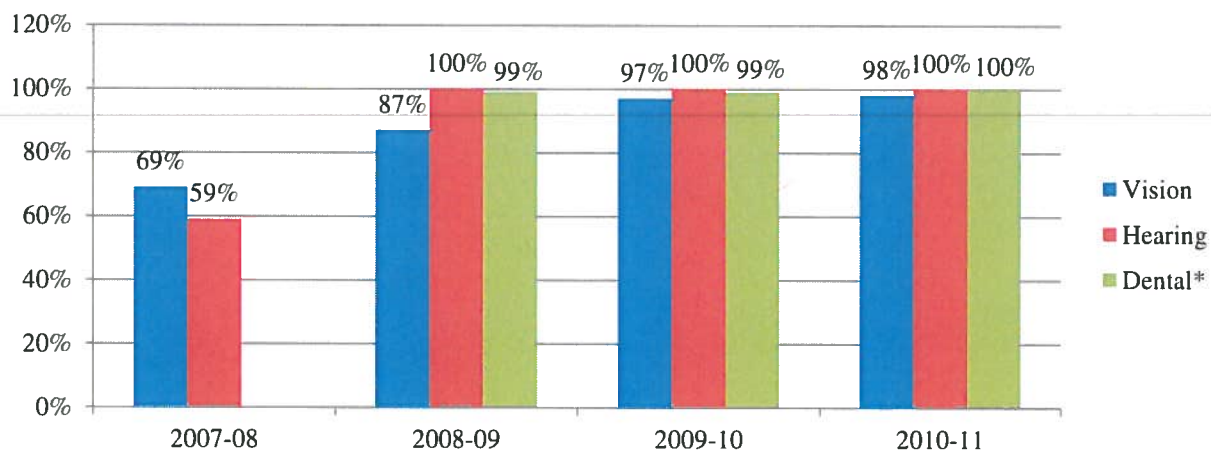
## I. Executive Summary of Key Findings

The “Putting Healthcare Back into Schools” Nurse Demonstration Project is a five-year endeavor (2007-12) to expand school nursing and formally link school nurses to a school health clinic in San Jose Unified School District. Sponsored by the Lucile Packard Children’s Hospital and Lucile Packard Foundation for Children’s Health, the initiative provides full-time, credentialed school nurses, at four underserved elementary and middle schools, and a Nurse Practitioner based at School Health Clinics of Santa Clara County. Utilizing a quasi-experimental, mixed methods design, the program evaluation presented here aims to assess the impact of the additional nursing time in two main focus areas: 1) improving access to primary care and prevention services for students in kindergarten through 8<sup>th</sup> grade, with a special emphasis on chronic conditions and students with asthma; and 2) facilitating the establishment of a medical home for students who do not have one. This executive summary highlights key findings from the Year 5 of the demonstration project.

### A) **Goal 1: Improved access to primary care and prevention services, with an emphasis on chronic care management and students with asthma**

- *Health Screenings and Referrals: Review of 2010-11 Results*
  - The significant improvements in screening and referral rates for students with vision, hearing, and dental problems have been sustained in the demonstration schools (Table A). Though rates of screening and referrals have also increased in the comparison and non-demonstration schools throughout the last four years, they have remained significantly lower compared to the demonstration schools.
  - Please see Section III-A-1 (pages 16-17) for complete report of findings.

**Figure A. Percent of Students with Health Problems Examined by Health Care Specialist After Nurse Screening and Referral in Demonstration Schools**



\*Excludes parental refusals

Source: SJUSD Nurse Monitoring Tools; Packard 2010-11 (Year 4) Grant Report prepared by Melinda Landau

- *Follow-up of Students with Asthma: Review of 2010-11 Results*
  - 100% of students identified with asthma in the demonstration schools were contacted by the school nurse in 2010-11 and 2009-10, an increase from 99% in 2008-09. All students contacted by the school nurse completed an asthma questionnaire form.
  - Among students with an asthma severity rating of 3 or greater (out of a scale of 10, as indicated on their asthma questionnaire form), 100% received an additional follow-up contact from the school nurse.
  - Please see Section III-A-2 (page 18) for complete report of findings.
- *Emergency Room Visits for Asthma*
  - Analysis of 990 questionnaires from parents in demonstration schools (35% response rate) and 1,499 from the comparison schools (response rate 48%) indicates that children in comparison schools were more likely to be taken to the hospital emergency department (ED) for asthma related events than children in the demonstration schools. Parents in comparison schools reported twice as many ED visits for asthma compared to demonstration schools. For every 1,000 children we estimated 15.15 ED visits in schools with full-time nurses, versus 26.68 visits in the control schools.
  - Approximately 9.6% (94 out of n=983) of parents in demonstration schools reported that their child was seen at a hospital emergency room (ER) for all reasons during the last year, compared to 10.4% (151 out of n=1448) in comparison schools.
  - Please see Section III-A-5 (pages 24-26) for complete report of findings.
- *Parent Satisfaction*
  - Among respondents who utilized school nurse services (approximately 60%), over three-fourths (76.2%) of parents in the demonstration schools rated they were "Very satisfied," compared to 72.5% among control schools.
  - Among the 20-25% of parents who utilized services by the school psychologist, 84.7% of parent respondents in demonstration school rated "Very satisfied." In the control schools, 63.9% of parent respondents in rated school psychologist services as "Very satisfied."
  - Approximately 75.3% of parents in demonstration schools who utilized services by the school counselor reported they were "Very satisfied" with help provided, compared to 60.9% of parents in control schools.
  - Please see Section III-A-6 (pages 26-29) for complete report of findings (2011-12 Parent Phone Survey; N=326 (10.82% response rate) in demonstration schools; N=365 (10.05% response rate) in control schools).
- *Teacher and Administrator Perceptions of School Nurse Impact*
  - In 2011-12, 88% of demonstration school teachers reported that the school nurse helped them teach more effectively, compared to 68% of teachers in the non-demonstration school (2011-12 Online Teacher Survey; N=43 (26.4% response rate) in demonstration schools; N=28 (16% response rate) in control schools).

- By the final year of the project, teachers from demonstration and comparison schools shared similar perceptions about the value and positive impact of the school nurse in a number of student health and well being measures, including support in handling emergency medical situations with students and the overall well-being of students with chronic conditions.
  - Administrators from both demonstration and comparison schools reported high awareness about the school nurses and perceived positive impact on student health, well-being, as well as their ability to work effectively. 100% of administrators in both demonstration and comparison schools answered "Yes" when asked if school nurses help them work effectively. (2011-12 Online Administrator Survey; N=3(30% response rate) in demonstration schools; N=2 (22% response rate) in control schools).
  - Please see Section III-A-7 (pages 30-34) for complete report of findings.
- *Health Education*
    - The majority of teachers in both demonstration (67%) and control (68%) schools reported having attended one or more health education sessions in the past academic year (2011-12 Online Teacher Survey; N=43 (26.4% response rate) in demonstration schools; N=28 (16% response rate) in control schools).
    - A total of 21 parent and student asthma health education sessions were completed in 2011-12 due to strengthened collaborations with Breathe California and School Health Clinics of Santa Clara County (SHCSCC). Please see Section III-A-8 (pages 34-36) for complete report of findings.
- *Student Absenteeism Due to Illness (Phase I and Phase II)*
    - The most significant change in mean full-day absences due to illness was observed during the Phase I of the project (2007-09), after the first full year of implementation of the project. The mean absences due to illness decreased in the demonstration schools, from 3.17 days in 2006-07 to 3.03 days in 2008-09, while increasing from 3.43 days in 2006-07 to 3.51 days in 2008-09 in the control schools. Significant improvements were also observed at the elementary school level: mean absences due to illness decreased from 3.05 days in 2006-07 to 2.85 days in 2008-09 in demonstration schools, compared to control schools (3.19 days in 2006-07 to 3.23 days in 2008-09).
    - After the first full-year of implementation of the project (Phase I), we observed no major change in mean absenteeism due to illness rates for Phase II of the project (2009-11). These trends were due largely to the H1N1 epidemic that impacted absenteeism rates across the district during the 2009-10 academic school year. Subsequent absenteeism due to illness remained steady during Phase II due to the district-wide H1N1 vaccination campaign as well as efforts to implement the recent TDAP vaccination requirement.
    - Please see Section III-A-9 (pages 36-39) for complete report of findings.

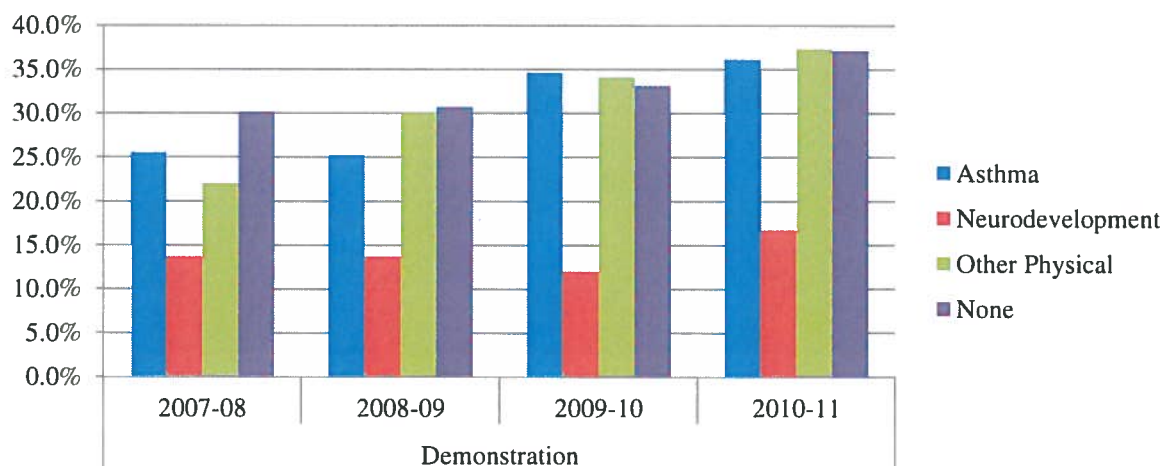
- **Cost Savings Analysis**
  - The reduction in absenteeism due to illness in the demonstration schools (and the increase in absenteeism due to illness in the comparison schools) during Phase I of the project equated to a possible savings of \$48,518.62 in ADA funding (\$81,677.98 difference in 2008-09 minus \$33,159.36 difference in 2006-07).
  - We estimated that this reduction in absenteeism due to illness observed during Phase I also equated to a difference of \$70,790 in parental sick wages gained from 2006-07 and 2008-09 in the demonstration schools.
  - Estimates of emergency room (ER) services for asthma-related diagnosis were also estimated. Please see Section III-A-10 (pages 40-41) and Appendix K for excerpt of additional cost savings estimates (article currently under peer review).
- **Student Academic Performance**
  - In demonstration schools, the gap between the percentage of students with asthma and percentage of students with no health conditions who scored Advanced or Proficient on English Language Arts (ELA) California Standardized Test (CST) was reduced from 2008-09 to 2009-10, and sustained in 2010-11. This gap continues in the comparison schools.
  - The overall percentage of students scoring advanced or proficient on the CST ELA and CST Math increased for all school groups from 2007-08 to 2010-11.
  - Please see Section III-A-11 (pages 41-45) for complete report of findings.

**Table A. Percentage of Students Scoring “Advanced or Proficient” on CST ELA**

	Demonstration			
	2007-08	2008-09	2009-10	2010-11
<b>Asthma</b>	25.5%	25.2%	34.6%	36.1%
<b>Neurodevelopment</b>	13.7%	13.7%	12.0%	16.7%
<b>Other Physical</b>	22.0%	30.1%	34.1%	37.3%
<b>None</b>	30.1%	30.7%	33.1%	37.1%

Source: SJUSD Data Warehouse, 2007-11

**Figure B. Percentage of Demonstration School Students Scoring “Advanced or Proficient” on CST ELA, By Health Condition and Year**



Source: SJUSD Data Warehouse, 2007-11

## **B) Goal 2: Facilitate the establishment of a medical home for students who do not have one**

### **▪ Health Insurance Enrollment**

- Over 90% of parents in both demonstration and comparison schools reported having health insurance for their children: 91.8% (905 out of n=986) in demonstration schools and 92.5% (1351 out of n=1460) in comparison schools. Overall, the majority of parents reported being enrolled in public health insurance programs, compared to Kaiser or Other Private programs (2010-11 Scantron Health Update Forms; N=990 (35% response rate) in demonstration schools; N=1499 (48% response rate) in control schools).
- Spanish-speaking parents reported higher rates of enrollment in public insurance programs (72.2% in demonstration and 80.8% in control schools) compared to English-speaking parents (36.4% in demonstration and 24.5% in control schools).
- Please see Section III-B-1 (pages 46-48) for complete report of findings (2011-12 Parent Phone Survey; N=326 (10.82% response rate) in demonstration schools; N=365 (10.05% response rate) in control schools).

### **▪ Primary Care Provider**

- The majority of parents in both demonstration and comparison schools reported having a regular health care provider: 82.3% (812 out of n=987) in demonstration and 83.4% (1218 out of n=1461) in comparison schools, respectively (2010-11 Scantron Health Update Forms; N=990 (35% response rate) in demonstration schools; N=1499 (48% response rate) in control schools).
- The majority of parents reported taking their child to the doctor's office when sick: 83.9 % in demonstration schools and 83.8% in comparison schools. A small percentage of parents in demonstration (10.8%) and comparison (12.1%) schools take their children to the emergency room or keep their child at home (2010-11 Scantron Health Update Forms; N=990 (35% response rate) in demonstration schools; N=1499 (48% response rate) in control schools).
- Please see Section III-B-2 (pages 48-50) for complete report of findings.

## **C) Dissemination & Advocacy**

- Efforts to disseminate the significant evaluation findings of the project and advocate for increased funding for school nurses have remained central to the demonstration project. Over the past five years, there have been a number of opportunities and venues to bring attention to the project from key stakeholders, including practitioners, educators, researchers, and administrators. In addition to community and school venues, the project and evaluation team has been able to present in numerous and diverse settings, including the Stanford Pediatrics Retreat, American Evaluation Association, and Children's Advocacy Institute. An article was published in *Research in Political Sociology, Democracies: Challenges to Societal Health*, with two additional publications submitted and in review, and the "School Health Evaluation" website was also recently launched to highlight the project. Table B (page 8) highlights key advocacy and dissemination efforts. Please see Section III-C (pages 50-52) for additional information.

Table B. Project Dissemination and Advocacy Efforts, 2008-12

Year	National Conferences & Professional Organizations	Policy Meetings	Stanford-Affiliated	Papers & Publications	Additional Media
2008-09		Children's Advocacy Institute Roundtable			Article in San Jose Mercury News
2009-10	2010 American Evaluation Association Conference				Local media coverage for district-wide H1N1 vaccination program
2010-11	2011 American Evaluation Association Conference	Efforts to set up key meetings with key elected officials (Congressman Mike Honda and Santa Clara County Supervisor Dave Cortese)	2011 Stanford School of Medicine Pediatrics Research Day	Article "School Health: A Way to the Future?" published in <i>Research in Political Sociology, Democracies: Challenges to Societal Health</i> , (Wejnert (ed), Vol. 19, pp. 27-42).	School Health Evaluation website and video development initiated
2011-12	2012 National Association of School Nurses Conference 2012 American Public Health Association Annual Conference	Efforts to set up key meetings with key elected officials (Congressman Mike Honda and Santa Clara County Supervisor Dave Cortese)  Invitation to present to Secretary of Education (Arne Duncan) in Washington, DC	2012 Stanford School of Medicine Pediatrics Research Day	Article "School Nurses' Role in Asthma Management, School Absenteeism, and Cost Savings: A Demonstration Project" under peer review  Article "Association between Chronic Health Conditions and School Performance among Children and Youth" under peer review	School Health Evaluation website and video development initiated

#### **D) Additional Accomplishments**

- Dissemination of project benefits district-wide: We observed that the schools selected as “controls” have also seen the benefits from the efforts of the full-time school nurses in the demonstration schools, with two former comparison schools (Olinder and Grant Elementary Schools) selected to participate in the Coordinated School Health (CSH) Pilot program. The benefits of the additional full-time school nurses has disseminated widely across the entire district as well, including the implementation of professional best practices, nurse monitoring tools, and coordination of district-wide campaign and programs.
- Leverage for additional school nurse funding: The demonstrated successes and improvements in student screenings, referrals, follow-up, absenteeism, and academic scores in the demonstration schools have provided leverage for other schools in the district to garner support for full-time nurses at their school sites. During the 2011-12 school year, there were five additional schools beyond the existing four Packard demonstration schools that secured funding for full-time nurses through the CSH pilot, Title A funds, and donor funding.
- Strengthened community collaboration and partnerships: One of the most significant outcomes of the project thus far has been in the increased and strengthened collaboration between the district and community health agencies and partners. The full-time nurses have been able to successfully build and coordinate partnerships to provide dental screenings and follow-up care for students, facilitate parent/student/staff health education sessions, as well as refer parents to appropriate resources for glasses, food, and clothing. Perhaps one of the most significant collaborations strengthened has been between the district and School Health Clinics (SHC) of Santa Clara County, another partner with the demonstration project. With the support of a Nurse Practitioner with SHC and strengthened communication processes, referrals to SHC have increased and SHC health educators have been very successful in reaching students and staff in the classrooms to facilitate education sessions in the demonstration schools.