



*National Association of School Nurses*

The case for school nursing:

The need: There are significantly more children in special education and more children in school with medically fragile conditions and chronic illnesses.

- The percent of students in federally supported special education program increased from 8.3% to 13.4%, from 1977 – 2008, a 62% increase (NCES, 2010).
- From 2002 to 2008, the percentage of children in special education with health impairments due to chronic or acute health problems increased 60% (NCES, 2010).
- Two staff categories increased more than 100 percent between 1980 and 2007—instructional aides, which rose 120 percent, and instructional coordinators, which rose 244 percent. (NCES, 2010).
- Within this group, the rates of children with autism doubled since 2002 (NCES, 2010).
- As rate of NICU survival has risen, so do the numbers of children with neuro-developmental problems. Among toddlers and infants in this group who show no or mild disability, a significant number of them have moderate – severe disabilities at school age (Marlow, Wolke, & Bracewell, 2005; Hoestra, Ferrara, Coeser, Payne & Connet, 2004).
- The more premature a child is, the more likely they will have health problems and require special care. Forty percent (40%) of the children born between 22-24 weeks gestation has special health care needs at 18 months of age (Stephens, Tucker & Vohr, 2010).
- Early term birth is correlated with diminished mathematics and reading performance, teacher reported behavior and attention problems (Aarnoudse-Moens, Cornelieke, Sandrine, & Hanan, 2009)
- Each year, as these survivors enter early intervention services and Kindergarten, the need for school health services increases. Medically fragile children in school require ventilators, tube feedings, medication, and other complex nursing cares (Clement, Barfield, Ayadi, & Wilber, 2007).
- Problems persist through adolescence. Preterm groups who had neurological problems and were small for gestational age had the lowest academic competence scores as teens. School services needed increases with greater problems associated with prematurity. Continued monitoring of preterm infants through early adolescence is needed to ensure appropriate school services (Winchester, Sullivan, Marks, Doyle, DePalma, & McGrath, 2009).
- And it is not just academics and health issues. Pervasive behavior problems are more frequent in children born at the limits of viability. Extremely preterm boys are the most vulnerable; the impact on parents and teachers is considerable. Extremely preterm students were six times more likely to have behavior problems that were students who were born full term (Samara, Marlow, Wolke, 2008).

- Newly diagnosed cases of diabetes has almost doubled in last 10 years (CDC, 2008)
- The prevalence of food allergy among children under the age of 18 increased 18% percent from 1997 to 2007 (Branum & Lukacs, 2008). Peanut allergy doubled in children from 1997-2002 (Sicherer et al, 2003). Fatal food anaphylaxis is most often caused by peanuts (50-62%) and tree nuts (15-30%) (Keet & Woods, 2007).
- Asthma rates in children under the age of five have increased more than 160% from 1980-1994 (CDC, 1998) resulting in 8.9% of children in the United States with asthma in 2005 (Akinbami, 2006). In 2008, just over 10 million children in the U.S have asthma (EPA, 2010). "...students with asthma who were poor or who were African American and in schools with full-time nurses missed significantly fewer days ... than did similar students with asthma in schools with part-time nurses" (Telljohann, Dake, & Price, 2004).
- 45,000 children under the age of 15 develop epilepsy each year 326,000 school children through age 15 have epilepsy. It is 25% more likely in children with mental retardation, 13% more likely in children with cerebral palsy, and 50% more likely in children with both cerebral palsy and mental retardation (Epilepsy Foundation, 2010).
- Overall, from 15 to 18 percent of children and adolescents have some sort of chronic health condition, nearly half of whom could be considered disabled (Perrin, Bloom & Gortmaker, 2007).
- An estimated 4–6% of all school-age children receive medication in school on a typical day (Ficca & Welk, 2006; McCarthy, Kelly, & Reed, 2000). The range of medications administered increased between 2000-2003 (McCarthy, Kelly, Johnson, Roman, & Zimmerman, 2006; Clay et al. 2008).

School nurses influence attendance, which influences achievement and graduation rates:

- Repeated studies have identified that school nurses reduce absenteeism (Maughan, 2003.) and the literature shows a higher nurse to student ratio is related to better attendance rates (Pennington & Delaney, 2008).
- School absence not only affects performance but also contributes to increased school drop-out rates, which in turn have economic and social repercussions for the individual, family, and community (Pennington & Delaney, 2008). Attendance predicts both dropout and achievement (Chan, 2002; Epstein & Sheldon, 2002; Klem & Connell, 2004).
- Children who have poor health are seven times more likely to miss 11 or more days of school a year due to illness or injury than children in good health (Bloom & Day, 2005)
- School nurses are significantly less likely to dismiss a student from school early than non-licensed personnel (Pennington & Delaney, 2008; Wyman, 2005).
- In one community, hiring nurses increased attendance, decreased dropout, and increased achievement (Bobo, 2001; Cooper, 2005)

School nurses are an essential arm of public health promoting wellness and preventing injury

- Unlicensed personnel in school make more medication errors than nurses (Farris, McCarthy, Kelly, Clay & Gross, 2003; McCarthy, Kelly, & Reed, 2000)

- Registered nurses in schools are correlated with increasing immunization rates (Ferson, MJ, Fitzsimmons, G, Christie, D, & Woollett, H, 1995; Salmon et al., 2005)
- Salmon et al. (2005) found parents were significantly less likely to request an exemption from immunizations than school personnel without health care training. Unlicensed school personnel were unaware of the seriousness of vaccine-preventable diseases, as well as the susceptibility of the unimmunized children (Salmon et al., 2004).

The intensity of school health services is lower in schools with other disparities. Poor health and poverty combine to predict low achievement.

- One study of 18 school districts found the intensity of policies and programs in school health services was significantly related to graduation rate (Cook, 2009).
- School health programs and services are likely inequitably distributed as are most other school resources—that is, there are both fewer and lower quality resources available in schools that serve low-income minority youth (Basch, 2010). A 2007 NASN study found that schools with a full time RN were more likely than schools with PT RNs or no nurses to have other health care services and providers.
- Children's health factors combined with low socioeconomic status influences academic achievement (Case & Paxson, 2006; Crosnoe, 2006; Hass, 2006; Hass & Fosse, 2008; Heckman, 2008; Koivusilta et al., 2003; Palloni, 2006). The relationship among social-environmental factors (e.g., poverty), education, and health are causally related in reciprocal ways (Basch, 2010).

School nurses are crucial to children's mental health.

Academic achievement can be improved through early detection of mental health problems, timely referral, and access to appropriate services (New Freedom Commission on Mental Health, 2003).

Approximately one in five children and adolescents has a diagnosable mental health disorder in the course of a year. Five percent have impairment in functioning that is extreme (U.S. DHHS, Office of the Surgeon General, 1999).

Twenty percent (20%) of students may have undiagnosed mental health problems that cause difficulty with academic work (Puskar & Bernardo, 2007).

School nurses spend 32% of their time providing mental health services (SAMSA, 2005).

Through case management of chronic illness, school nurses play a pivotal role in the health and well-being of children and contribute to improved health and education outcomes.

- School nurses case management of asthma resulted in significantly more students with needed medication at school (Taras, Wright, Brennan, Campana & Lofgren, 2004) and fewer exacerbations resulting in visits to the school nurse office (Erickson, Splett, Mullett, Jensen, Belseth, 2006; Splett, Erickson, Belseth, & Jensen, 2006).
- School nurses caring for children with diabetes resulted in better monitoring of blood glucose levels and a lower A1c and were more likely to detect low blood glucose levels (Nguyen, Mason, Sanders, Yazdani, & Hetulla, 2008).

- Lower school nurse case loads, training and support resulted in school nurses providing more case management services for students (Guttu, Engelke & Swanson, 2004; Taras, Wright, Brennan, Campana & Lofgren, 2004; Perry & Toole, 2000).