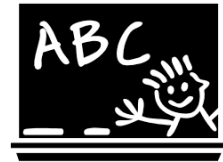


Health Conditions Per 100 U.S. Students 2011 Update



COLOR KEY

See reverse for more information



Asthma



Hearing Loss



Autism Spectrum Disorders



Mental/Emotional Disorders



Food Allergy



Vision Deficiencies



Teen Pregnancy



Threatened by Weapon



Seizure



Obesity



Tobacco use



Access to Health Care

ASTHMA

Approximately **10%** of school-aged children have asthma¹. Asthma is responsible for 13 million missed school days each year.² In schools with full time nurses, African-American students missed significantly fewer schools days than children in school with part time nurses.³

FOOD ALLERGY

The prevalence of food allergy among children under age 18 increased 18% from 1997-2007, with **3.9%** of children reported to have a food or digestive allergy in the previous 12 months.⁴ In a survey of school epinephrine administration, approximately 25% of recipients had no previous diagnosis.⁵

SEIZURE DISORDER

By 16 years of age, **0.4% to 0.7%** of children will have developed epilepsy.⁶

HEARING LOSS

One to 3 out of every 1,000 children is born with hearing loss. Among adolescents, **4.6%** aged 12 to 18 years have elevated hearing thresholds in high frequencies (3, 4, or 6 kHz), in both ears, signifying noise-induced hearing loss.⁷

VISION DEFICIENCIES

Over **13%** of individuals 12 years and older had uncorrected refractive errors in 2005–08.⁸

OBESITY

Almost 32% of children 2-19 years old are overweight at or above the 85th percentile and at risk for developing health problems, **16.9%** of whom are obese, at or above the 95th percentile. The incidence of obesity has doubled for 2-5 year olds in the last 30 years, tripled among 6 to 11 year olds, and more than tripled among 12-19 year olds.⁹ Approximately one in every 500 children and adolescents has type 1 or type 2 diabetes (0.2%).¹⁰

AUTISM SPECTRUM DISORDERS (ASD)

It is estimated that between 1 in 80 and 1 in 240 with an average of **1 in 110** children in the United States have an ASD.¹¹ Approximately 13% of children have a developmental disability, ranging from mild disabilities such as speech and language impairments to serious developmental disabilities, such as intellectual disabilities, cerebral palsy, and autism.¹²

TEEN PREGNANCY

A total of 409,840 infants were born to 15–19 year olds in 2009, for a live birth rate of **39.1 per 1,000** women in this age group.¹³

TOBACCO USE

In 2009, 19.5% of students (**5.1% on school property**) had smoked cigarettes on at least 1 day during the 30 days before the survey.¹⁴

MENTAL / EMOTIONAL DISORDERS

A recent study reports the overall prevalence of mental/emotional disorders with severe impairment and/or distress was **22.2%**.

Approximately one in every four to five youth in the U.S. meets criteria for a mental disorder with severe impairment across a life-time.¹⁵

This same study reported an ADHD prevalence of 4%, although the most recent parent-reported prevalence of ADHD was 9.5%.¹⁶

THREATENED BY WEAPON

According to the 2009 YRBS Survey, **7.7%** of students had been threatened or injured with a weapon (e.g., a gun, knife, or club) on school property one or more times during the 12 months before the survey. 19.9% of students had been bullied on school property during the 12 months before the survey.¹⁴

ACCESS TO HEALTH CARE

In 2008, **10%** of children lacked health insurance coverage at any time during the year.¹⁷

The chart on the reverse side depicts the prevalence of some common health concerns in children and youth, and is **not** meant to imply that every student has a health concern. Instead, it illustrates that for every 100 U.S. students, there are likely 100 health concerns that would benefit from onsite management by a school nurse. Overall, 15 to 18% of children and adolescents have some sort of chronic health condition; nearly half of whom could be considered disabled.¹⁸ School nurses are extensions of the public health system, assisting many children not served by the traditional health care system, and a vital component of the care of children with chronic health conditions and disabilities. Even in the absence of chronic health conditions, **all students benefit** from having a full time Professional Registered Nurse to provide immunization and communicable disease monitoring; health screenings such as hearing and vision; health education and promotion; and episodic care of student illness and injury. The literature shows a higher nurse-to-student ratio is related to better attendance rates.¹⁹ **Healthy People 2020 recommends one registered nurse per every 750 regular education students.** Only, 40.6 percent of all elementary, middle, and senior high school had a nurse-to-student ratio of at least 1:750 in 2006.²⁰

References:

1. American Lung Association (2007). Trends in asthma morbidity and mortality. Retrieved from http://www.lungusa.org/atf/cf/%7B7a8d42c2-fcca-4604-8ade-7f5d5e762256%7D/ASTHMA_TREND_Nov2007.PDF
2. Akinbami, L.J. (2006). The state of childhood asthma, United States, 1980-2005. Hyattsville, MD: National Center for Health Statistics. Retrieved from <http://www.cdc.gov/nchs/data/ad/ad381.pdf>
3. Taras, H., Wright S., Brennan, J., Campana, J., & Lofgren, R. (2004). Impact of school nurse case management on students with asthma. *Journal of School Health*, 74, 213-219.
4. Branum, A.M., & Lukacs, S.L. Food allergy among U.S. children: trends in prevalence and hospitalizations. *NDHS Data Brief*, no 10, October 2008. Retrieved from <http://www.cdc.gov/nchs/data/databriefs/db10.pdf>
5. McIntyre, C.L., Sheetz, A.H., Carroll, C.R., & Young, M.C. Administration of epinephrine for life-threatening allergic reactions in school settings. *Pediatrics* 2005;116:1134-40.
6. Hirtz, D., Thurman, D.J., Gwinn-Hardy, K, Chaundhuri, A. R. & Zalutsky, R. (2007). How common are the "common" neurological disorders? *Neurology*, 68, 326-337.
7. Department of Health and Human Services (USDHHS). (2010). *Healthy People 2020. Hearing and other sensory or communication disorders*. Retrieved from <http://healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=20>
8. USDHHS. (2010). *Healthy People 2020. Vision*. Retrieved from <http://healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=42>
9. Ogden, C.L., Carroll, M.D., Curtin, L.R., Lamb, M.M., & Flegal, K.M. (2010). Prevalence of high body mass index in U.S. children and adolescents, 2007-2008. *JAMA* 303, 242-249.
10. Centers for Disease Control and Prevention (CDC). (2008). *National diabetes fact sheet: General information and national estimates on diabetes in the United States, 2007*. Atlanta, GA: USDHHS, CDC. Retrieved from http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2007.pdf
11. Mulvihill, B. et al. (2009). Prevalence of autism spectrum disorders: Autism and Developmental Disabilities Monitoring Network, United States, 2006. *Morbidity Mortality Weekly Report (MMWR)*, 58(SS10), 1-20. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5810a1.htm>
12. Boulet, S.L., Boyle, C. A. & Scheive, L. A. (2009). Health care use and health and functional impact of developmental disabilities among US children, 1997-2005. *Archives of Pediatric Adolescent Medicine*, 163, 19-26.
13. Hamilton, B.E., Martin, J.A., & Ventura, S.J. (2010). Births: Preliminary data for 2009. *National Vital Statistics Reports*, 59(3), 1-29.
14. CDC. (2010). *Surveillance Summaries: MMWR*. 59, 1- 148. Retrieved from <http://www.cdc.gov/mmwr/pdf/ss/ss5905.pdf>
15. Merikangas, K.R. et al. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child and Adolescent Psychiatry*, 49, 980 – 989.
16. Visser, S.N., Bitsko, R.H. Danielson, M.L., Perou, R. & Blumberg, S. J. (2010). Increasing prevalence of parent-reported attention-deficit/hyperactivity disorder among children --- United States, 2003 and 2007. *MMWR*, 59, 1439-1443. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5944a3.htm?s_cid=mm5944a3_w
17. DeNavas W.D., Proctor, B.D., & Smith, J.C. (2009). Income, poverty, and health insurance coverage in the United States: 2008 (Current Population Reports, P60-236 [RV]). Washington, DC: U.S. Census Bureau. Retrieved from <http://www.census.gov/prod/2009/pubs/p60-236.pdf>
18. Perrin, J.M., Bloom, S.R., & Gortmaker, S.L. (2007). The increase of childhood chronic conditions in the United States. *JAMA*, 297, 2755-2759.
19. Pennington, N. & Delaney, E (2008). The number of students sent home by school nurses compared to unlicensed personnel. *Journal of School Nursing*, 24: 290 - 297.
20. Brener, N., Wheeler, L., Wolfe, L., Vernon-Smiley, M., & Caldwell-Olson, L. (2007). Health services: results from the School Health Policies and Programs Study 2006. *Journal of School Health*, 77, 464-485.