

Maternal and Child Health: A Business Imperative

Introduction: The Crisis in Children's Health

In the United States, about 25% of the population is under the age of 18, so a significant number of the people covered by a large employer's health plan are likely to be children. Between 1975 and 2008, the proportion of employed women with children under the age of 18 grew from 47% to 71%.¹ Many of America's children enjoy healthy childhoods, but new research highlighting the declining health of children is being published all the time. The prospects for good health aren't bright for too many children growing up today; future generations are also at risk.

Past generations of children suffered from acute diseases like polio, most of which are now prevented by vaccines. In contrast, today's children face chronic diseases that develop slowly throughout childhood and impair adulthood. The onset of chronic conditions is beginning earlier and earlier, to the point where conditions once only seen in adults are now being diagnosed in children. For example, when children adopt poor eating habits and are overweight throughout childhood, they are at a significantly higher risk of serious and costly complications such as diabetes and heart disease. Below, we highlight several key health issues facing children and adolescents that can have a major impact on employers.

Employers who focus health initiatives on dependent children can not only help prevent illness, injuries and their associated costs today, but they also ensure that their future workforce is healthy and able to live productive and fulfilling lives free of chronic diseases.

Children and Adolescent Health Issues at a Glance:

Premature Birth

Premature birth not only endangers to a child's health and future development, but is also a major cost to employers and society. U.S. rates of preterm birth – birth occurring at less than 37 weeks' gestation – have increased steadily in recent decades.

- In 2004, 12.5% of births in the United States – 500,000 infants total – were preterm.^{2,3} This is a 30 percent increase since 1981.³
- The average cost of a premature birth is \$51,600.³

- Employers pay an average of \$41,456 more for a premature birth than for a full-term birth.⁴
- The mothers of babies born prematurely spend an average of 29.1 days on short-term disability (STD). In comparison, mothers of full-term babies spend only 18.9 days on STD.⁴

Low Birth Weight

Many premature babies weigh too little at birth, which adds to both the child's potential medical problems and the cost to employers. Low birth weight is one of the leading causes of neonatal mortality. Unfortunately, the percentage of newborns with low birth weights has increased in the past two decades – from 7% in 1990 to 8.3% in 2006. These children are at risk for respiratory distress syndrome, bleeding in the brain, and other serious and costly complications.⁵

The average hospital bill for a low birth weight baby is \$205,000, much higher than the \$5,800 average bill for babies born at a normal weight.⁶ Some of the factors that are contributing to the increasing numbers of low birth weight babies are an increase in multiple births because of the rising use of infertility interventions, often as a result of delayed childbearing; increasing rates of prematurity; early inductions of labor; and Caesarean deliveries.⁷

HEALTH DISPARITIES AMONG CHILDREN

Eliminating health disparities among all people is an ambitious goal that many employers are beginning to tackle directly. Ensuring that future generations have the best health care regardless of ethnicity is an important step toward this goal. Identifying children who are at highest risk of poor health can help employers target health promotion activities.

Examples of health disparities among children include:

The rate of obesity in four year-old children:⁸

- 31.2% of American Indian children
- 22.0% of Hispanic children
- 20.8% of African American children
- 15.9% of white children
- 12.8% of Asian children

The percentage of children diagnosed with asthma each year:⁹

- Puerto Rican children (26 percent)
- Black, non-Hispanic children (13 percent)
- White, non-Hispanic children (9 percent)
- Asian children (6 percent)

The percentage of children who have not had a dental visit in two years or longer:⁹

- 22 percent of Hispanic children
- 18 percent of non-Hispanic black children
- 14 percent of non-Hispanic white children

Asthma

The most common chronic disease in children is asthma, a chronic inflammatory disease of the airways. Asthma has been on the rise since the 1990s. In 2006, 9% of all U.S. children had been diagnosed with asthma, and about a quarter of all children with asthma are younger than 5.⁹ According to a 2008 study, almost 6% of all children had had one or more asthma attacks, and asthma is the third-leading cause for hospitalization of children.^{7, 10} Asthma treatment is a major financial burden for employers and families. In 2006, there were an estimated 159,000 hospitalizations and more than 7 million physician visits for children living with asthma.¹⁰ Children with asthma miss 12.8 million school days each year; in turn, this can mean increased absenteeism among employees who are parents.¹¹

Tooth Decay

Tooth decay or dental caries caused by bacterial infections is a common chronic disease of childhood. Tooth decay affects more than one-fourth of U.S. children ages 2 through 5 and half of those ages 12–15.¹² Tooth decay can cause pain and make it difficult to eat, learn and play. In many cases, however, parents overlook the need for oral health care. Ensuring that children receive early preventive care, fluoridation and sealants can help avoid painful tooth decay and visits to emergency rooms and dentists.¹³ In one study, children who had visited a dentist before their first birthday had 40% lower dental costs than children whose first dental visit came between their fourth and fifth birthdays (\$263 and \$447, respectively).¹⁴

Obesity

America is slowly losing the fight against obesity. U.S. Surgeon General Richard Carmona, MD, called obesity the greatest threat to public health today. The rate of overweight among children has increased from 6% in the period 1976–1980 to 17% in 2005–2006. The latest estimates are that 1 in 5 four-year-olds – more than 500,000 children – are obese.⁸ Sustained obesity puts adolescents and young adults at high risk for several chronic diseases, including hypertension, type II diabetes and cardiovascular disease. Overweight teenagers have a 70% chance of becoming overweight or obese adults; this likelihood increases to 80% if at least one parent is overweight.¹⁵ An additional 16.5% are considered at risk of becoming overweight.¹⁶ A recent study conducted by one large employer revealed that in 2008, the average health insurance claim cost for obese children was as high as \$2,907, while for children with type II diabetes, the average claim cost was \$10,789 – more than the average cost for adults with the same condition.¹⁷

For more information about healthy weight and how to calculate body mass index (BMI) visit this Centers for Disease Control and Prevention website:
<http://www.cdc.gov/healthyweight/assessing/bmi/index.html>

Diabetes

The rising rate of obesity in children is also of concern since obesity is a factor in the development of type 2 diabetes. It is estimated that in 2007, 186,300 people under age 20 had type 1 or type 2 diabetes.¹⁸ Previously, the typical onset of diabetes was at about age 45, but now, 15,000 U.S. youth under age 20 are diagnosed annually with type 1 diabetes, while 3,700 are newly diagnosed with type 2 diabetes.¹⁸ Treating and controlling pediatric diabetes can be challenging for the child and the

family as well as costly for employers. Children need to follow a diet that has been carefully planned by a dietician, get adequate exercise, check their glucose blood levels, take insulin or oral medication as prescribed, and manage episodes of hyperglycemia and hypoglycemia. In terms of medical spending, the costs for children with diabetes who were not taking insulin and who were taking insulin, respectively, were \$2,500 and \$4,000 more than children without diabetes.¹⁹

Immunizations

Rates of childhood immunization are at record levels and continue to climb each year.²⁰ Despite more than 50 years of safe vaccination and a 90% decrease in preventable diseases, recent negative media coverage has alarmed some parents who are now choosing not to vaccinate their children according to Centers for Disease Control and Prevention guidelines. Vaccines are 90% to 99% effective, and childhood immunizations are considered one of the most cost-effective clinical preventive services.²¹ Vaccinations for children born in 2001 alone will save \$10 billion in direct costs (hospitalizations, office visits, prescription medication, etc); altogether, it will save society more than \$43 billion.^{22, 23} Because the viruses and bacteria that once caused common dangerous childhood diseases still exist, vaccines are still important for all children (and adults too).

The Current Financial Crisis

In these tough economic times, it is vitally important to make it easy for children to get access to health care. Growing concerns about household expenditures in a lean economy have forced many parents to forgo health care for themselves and their children. A February 2009 poll found that 53 percent of American families had cut back on their medical care in the past six months. People forced to choose between paying for medical care and paying household bills are in an impossible position, but more people are in fact skipping dental checkups or care (34 percent), postponing needed medical treatment (27 percent), not filling one or more prescriptions (21 percent), or splitting pills and skipping doses (15 percent). If parents are not receiving treatment, there is a likelihood that children are also not receiving needed checkups or treatment.²⁴

Educating parents should be the first step employers take to improve the health of children. As the level of parental knowledge of health topics increases, the percentage of children with excellent health increases.⁹ Providing comprehensive benefits and clearly communicating these benefits to the employees and their dependents is the goal of *Investing in Maternal and Child Health: An Employer's Toolkit*. This resource provides employers with tools to develop a maternal and child health strategy and to evaluate the relationships among health outcomes and business performance. It contains guidance on effective health communication, beneficiary education and employee engagement as well as educational materials for employees about important topics in maternal and child health.

This toolkit will provide you with information on how large employers can address the increasingly troubling health care situation of many children. Investing in children now not only supports employees and lowers health care costs today but also improves the health of America's future workforce.

References

1. Galinsky E, Bond J, Sakai K. National study of the changing workforce. New York: Families and Work Institute; 2008.
2. United Nations Children's Fund and World Health Organization. *Low birthweight: Country, regional and global estimates*. UNICEF; 2004.
3. Institute of Medicine. *Preterm birth: Causes, consequences, and prevention*. Washington, DC: National Academies Press; 2007.
4. March of Dimes. *Factsheet: Premature birth and the cost to business*. March of Dimes Foundation; May 2007. Publication #37-1929-05.
5. March of Dimes. *Low Birthweight*. Available at: http://www.marchofdimes.com/professionals/14332_1153.asp. Accessed July 25, 2007.
6. Cuevas ZKD, Silver DR, Brooten D, Youngblut JM, Bobo CM. The cost of prematurity: hospital charges at birth and frequency of rehospitalizations and acute care visits over the first year of life: a comparison by gestational age and birthweight. *Am J Nurs*. 2005; 105(7):56-64.
7. Federal Interagency Forum on Child and Family Statistics. *America's children in brief: Key national indicators of well-being, 2008*. Available at: <http://childstats.gov/americaschildren/index.asp>. Accessed March 25, 2009.
8. Anderson SE, Whitaker RC. Prevalence of obesity among U.S. preschool children in different racial and ethnic groups. *Arch Pediatr Adolesc Med*. 2009;163(4):344-348.
9. Bloom B, Cohen RA. Summary health statistics for U.S. children: National health interview survey, 2006. National Center for Health Statistics. *Vital Health Stat*. 2007;10(234).
10. DeFrances CJ, Cullen KA, Kozak LJ. National hospital discharge survey: 2005. National Center for Health Statistics. *Vital Health Stat*. 2007;13(165).
11. Akinbami LJ. *The state of childhood asthma, United States, 1980–2005. Advance data from vital and health statistics; no. 381*. Hyattsville, MD: National Center for Health Statistics; 2006.
12. Centers for Disease Control and Prevention. *Oral health: Preventing cavities, gum disease, and tooth loss*. Available at: <http://www.cdc.gov/nccdphp/publications/aag/doh.htm>. Accessed March 26, 2009.
13. Children's Dental Health Project. *Cost effectiveness of preventive dental services*. Available at: <http://www.cdhp.org/system/files/Cost%20Effectiveness%20of%20Preventive%20Dental%20Services.pdf>. Accessed June 13, 2010.
14. Savage MF, Lee JY, Kotch JB, Vann Jr. WF. Early preventive dental visits: effects on subsequent utilization and costs. *Pediatrics*. Oct 2004;114(4):e418-423.
15. MacKay AP, Duran C. *Adolescent health in the United States, 2007*. National Center for Health Statistics; 2007. Available at: <http://www.cdc.gov/nchs/data/misc/adolescent2007.pdf>. Accessed March 26, 2009.
16. Office of the Surgeon General. *About the HHS Childhood Overweight and Obesity Prevention Initiative*. Available at: <http://www.surgeongeneral.gov/obesityprevention/about/index.html>. Accessed April 3, 2009.
17. Sepulveda MJ, Tait F, Zimmerman E, Edington D. Impact of childhood obesity on employers. *Health Affairs*, March/April 2010; 29(3): 513-521.
18. National Diabetes Education Program. *Overview of diabetes in children and adolescent*. Available at: http://www.ndep.nih.gov/diabetes/youth/youth_FS.htm#Statistics. Accessed April 13, 2009.
19. Imai K, Zhang P, Imperatore G. The direct medical cost of diabetes in children. *Abstr AcademyHealth Meet*. 2004; 21: Abstract No. 1145.
20. National Center for Health Statistics. *Health, United States, 2008*. Hyattsville, MD: 2009.
21. American Academy of Pediatrics. *Why does my child need to be immunized?* Available at: <http://www.healthychildren.org/english/safety-prevention/immunizations/Pages/Why-Immunize-Your-Child.aspx>. Accessed April 4, 2009.
22. Coffield AB, Maciosek MV, McGinnis JM, et al. Priorities among recommended clinical preventive services. *Am J Prev Med*. 2001;21(1):1-9.
23. Partnership for Prevention. *New study provides road map to preventive services with greatest health impact, best cost value*. Available at: http://www.news.vcu.edu/news/New_study_provides_road_map_to_preventive_services_with_greatest. Accessed March 2, 2009.
24. Kaiser Family Foundation. *Kaiser health tracking poll (conducted Feb. 3-12, 2009)*. Available at: <http://www.kff.org/kaiserpolls/posr022509pkg.cfm>. Accessed March 25, 2009.