



# Chronic Mental Health Issues in Children Now Loom Larger Than Physical Problems

Anita Slomski

IT'S HARD TO BE A KID TODAY. FOR THE first time in the half century that the US government has continuously collected data, the top 5 disabilities affecting US children are mental health problems rather than physical problems.

In 2008-2009, 7.7% of US children younger than 18 years had a disability that limited usual activity, which is a 4-fold increase in the prevalence of childhood activity limitations since 1960, according to data from the National Health Interview Survey from the US Department of Health and Human Services. Among these children, a speech problem; learning disability; attention-deficit/hyperactivity disorder (ADHD); other emotional, mental, or behavior problems; and other developmental problems were each reported by roughly 1 in 5 parents as contributing to their child's limitations, according to *Children With Disabilities*, the newest volume in the journal series *The Future of Children* (<http://tinyurl.com/6myzbco>), published by the Woodrow Wilson School of Public and International Affairs at Princeton University and the Brookings Institution. Asthma, the most prevalent physical condition reported, was named as a cause for 8% of children with limitations.

Although children from both poor and well-off families showed the same increase in disability prevalence, disadvantaged children were more likely to have a disability (10.8%) compared with financially secure children (7.4%), according to the most recent data. Disadvantaged children remain the most likely to have a chronic disability, but the socioeconomic gap may be closing. According to new research by Neal Halfon, MD, MPH, director of the

UCLA Center for Healthier Children, Families, and Communities and professor of pediatrics, health sciences, and policy studies, a disproportionate amount of the increase in mental, developmental, and behavioral problems over the past decade appears to be in children from higher-income families.

## PREVALENCE VS DIAGNOSIS CREEP

One explanation for why mental, behavioral, and developmental problems have soared is that parents are pushing their children to develop the advanced cognitive, social, and emotional skills they'll need to compete in our knowledge-based economy.

"The conveyor belt [to adulthood] that we put our children on is moving much faster and at a much sharper incline than it used to," Halfon said. "And many kids don't have the capacity to hold on for dear life and make it to the top."

Other observers cite changes that may affect children's health, such as a rise in premature births and subse-

quent risks for neurodevelopmental disorders or exposure to new or more environmental toxins during pregnancy and early childhood. A growing body of research has found that developmental disorders such as ADHD have complex etiologies with multiple genetic and environmental risk factors (Willcutt EG et al. *J Dev Behav Pediatr*. 2010; 31[7]:533-544). And physicians may be diagnosing more of these problems as a result of better diagnostic tools, lower diagnostic thresholds that recognize greater numbers of children as having cognitive problems, greater access to screening for low-income children, and even a trend of savvy parents demanding a diagnosis of ADHD for children struggling at school in order to improve academic performance with stimulant medication and special accommodations.

It's tricky to tease out a true rise in prevalence of disabilities from improved detection or changing definitions of them, according to James P.

### Leading Causes of Limitation in Usual Activities due to Chronic Conditions in US Children

1979-1981	1992-1994	2008-2009
1. Diseases of the respiratory system	1. Diseases of the respiratory system	1. Speech problems
2. Impairment of speech, special sense, and intelligence	2. Impairment of speech, special sense, and intelligence	2. Learning disability
3. Mental or nervous system disorders	3. Mental or nervous system disorders	3. Attention-deficit/hyperactivity disorder
4. Diseases of the eye and ear	4. Certain symptoms or ill-defined conditions	4. Other emotional, mental, and behavioral problems
5. Specified deformity of the limbs, trunk, or back	5. Deafness and impairment of hearing	5. Other developmental problems
6. Nonparalytic orthopedic impairment	6. Nonparalytic orthopedic impairment	6. Asthma or breathing problems

Source: Halfon N, Houtrow A, Larson K, et al. The changing landscape of disability in childhood. *Future Child*. 2012;22(1):13-42.

For the first time in more than 30 years, mental health conditions have displaced physical illnesses as the top 5 disabilities in US children. Nearly 8% of children have an activity-limiting disability.



Smith, PhD, distinguished chair in labor markets and demographic studies at the RAND Corporation. Smith, who studies childhood health histories, believes that conclusions about escalating rates of chronic physical disabilities “are premature at best,” but that mental health problems are definitely increasing. He points out that known causes of physical disabilities have not been rising: “Parents’ smoking has gone down, as has childhood poverty, and obesity didn’t increase until after this period.” Contributing factors to poor mental health in children, on the other hand, have accelerated. For example, he said, “divorce is on the rise; more kids are being brought up in single-parent families and in families where there is often conflict.”

That’s especially troublesome because mental health problems in childhood have much larger consequences in adulthood than do chronic physical conditions, said Smith. Adults who had mental, behavioral, or developmental problems as children lost more schooling, had fewer educational opportunities, and worked an average of nearly 7 fewer weeks per year than people who had chronic physical disorders as children, according to Smith’s research. Lower productivity and educational attainment translate to a 37% decline in family income, 3 times greater than the decline related to having childhood physical health problems, said Smith. “In terms of reduced economic outcomes, mental health issues in childhood are a serious problem, way bigger than obesity” will ever be, he said.

Researchers and clinicians are starting to understand that the child with ADHD in grade school may be on a path to become “the kid with oppositional-defiant disorder at 14 and the kid with a bad drug problem by the time he’s 17,” said Halfon. “Without the right kind of care, these kids are heading for a trajectory that is suboptimal not only for themselves, but also for society in the long run.”

#### AN ILL-PREPARED HEALTH SYSTEM

Although mental disabilities constitute a larger share of children’s chronic

conditions, services to treat them have lagged. “Pediatric care in the United States was developed in the ’50s and ’60s to primarily take care of acute infectious diseases,” says Paul H. Wise, MD, MPH, professor of child health and society and pediatrics at Stanford University School of Medicine. “That has largely evaporated due to immunizations, so we have a terrible—and unsustainable—mismatch between our health system and the current epidemiology rooted in chronic disease and mental health problems in children.”

Only about half of these children get any kind of services, said Halfon. “Parents typically recognize learning disabilities in their children between the ages of 3½ and 4½, but the children don’t get enrolled in special education classes at school until they are about 8½, when problems become too difficult to ignore,” he said. The Centers for Disease Control and Prevention estimates that 1 in 88 children in the United States has an autism spectrum disorder (ASD), but 40% of affected children don’t get a diagnosis until after age 4 years (<http://tinyurl.com/7w4z4m7>). And a new data brief from the National Center for Health Statistics (<http://tinyurl.com/cbx9dva>) states that fewer than one-half of children with ASDs use behavioral intervention or modification, “the most well-established and efficacious intervention for ASD.” Pediatricians often don’t recognize learning disabilities, or they lack connections to school districts to place children in special education classes, according to Halfon.

Pediatricians need more training to treat chronic disabilities, and insurers have to give them the incentive by providing adequate reimbursement, said Wise. “We’ll never have enough child psychiatrists to deal with all the developmental or mental illnesses. Pediatricians may be providing primary care, but that doesn’t mean they don’t have the capacity to treat kids with serious problems,” if they have more training and more support from the child psychiatry community. Pediatric medical homes would be a good start in im-

proving care for children with chronic illness, “but no one has been able to implement the medical home on a large scale,” said Wise. “And until we have a more stable, adequate reform of Medicaid reimbursement for child health care, we’ll see a continued erosion in the ability of the health community to take care of kids with chronic illness.”

#### MODIFYING THE ENVIRONMENT

Preventing children’s disabilities in the first place will be more effective than treating them. But a shift to primary prevention will require a willingness to enlist the help of city planners, engineers, and politicians to address a likely cause of chronic illness—environmental contamination, argued Bruce Lanphear, MD, MPH, professor of health sciences at Simon Fraser University in Vancouver, British Columbia, Canada. Children, who are more vulnerable than adults to adverse effects from environmental toxins, are sometimes exposed to numerous chemicals that may be contributing to mental and developmental problems.

Lanphear cited studies that linked various environmental exposures and mental conditions in children: the association of black carbon (an airborne by-product of fossil-fuel combustion) with reduced verbal and nonverbal intelligence and poor memory (Suglia SF et al. *Am J Epidemiol*. 2008;167[3]:280-286); of low lead exposure with lower IQ scores (Lanphear BP et al. *Environ Health Perspect*. 2005;113[7]:894-899); of prenatal exposure to tobacco with ADHD (Froehlich TE et al. *Pediatrics*. 2009;124[6]:e1054-1063); and of organophosphate pesticides, mercury, and polychlorinated biphenyls with ADHD (Bouchard MF et al. *Pediatrics*. 2010;125[6]:e1270-1277; Eubig PA et al. *Environ Health Perspect*. 2010;118[12]:1654-1667; Sagiv SK et al. *Am J Epidemiol*. 2010;171[5]:593-601). Lanphear’s own research found associations between prenatal exposure to bisphenol A and depressive symptoms, anxiety, and hyperactivity in young girls (<http://tinyurl.com/6uv67nn>).



“We used to try to protect kids from lead poisoning by telling moms to mop their homes better, to wash their kids’ hands better,” said Lanphear. “But that didn’t work. What brought the lead levels down was taking lead out of gasoline, paint, and canned food. If you really want to change exposures, whether it is lead or unhealthy food, the

most effective [strategy] by far is to take away the toxin.” The biggest challenge, he said, will be in standing up to corporations whose profits are at stake. “We have to ask ourselves whether we value the short-term profits of an industry over the long-term health of our children,” said Lanphear.

Although everyone recognizes the obesity epidemic time bomb because it can be seen, the growing prevalence of mental and developmental problems in children may be much less visible, but it’s just as explosive, Halfon said. “This is a very disturbing trend that will only get worse,” he said. “I think we’re looking at the tip of the iceberg here.” □

## USPSTF: Taking Vitamin D and Calcium Doesn’t Prevent Fractures in Older Women

Bridget M. Kuehn

**S**UPPLEMENTATION WITH LOWER-dose vitamin D and calcium is not an effective fracture prevention strategy for healthy postmenopausal women, according to a draft recommendation from the US Preventive Services Task Force (USPSTF). The task force recommends that healthy postmenopausal women should not take such supplements for this purpose.

The recommendation is based on a USPSTF review of the evidence, which found that the data to date do not demonstrate that supplementation with lower daily doses of vitamin D (400 IU of vitamin D<sub>3</sub> or less) and calcium (1000 mg calcium carbonate) prevent fractures in postmenopausal women who don’t have other underlying health issues (<http://tinyurl.com/3wuyzdm>). In addition to not having the intended benefit, such supplementation also increased the risk of developing kidney stones. According to the USPSTF, 1 in 273 women who take these lower-dose vitamin D and calcium supplements for 7 years will develop kidney stones.

“Kidney stones can be a problem,” explained Timothy Wilt, MD, a member of the USPSTF. “They can be painful and may lead to other problems.”

The task force found insufficient evidence to determine whether lower-dose vitamin D and calcium supple-

mentation prevents fractures in younger women or men. Questions also remain about the utility of higher doses of vitamin D.



Alison E. Burke/AWA

The largest and best-quality clinical trial considered by the USPSTF was the Women’s Health Initiative (WHI), which included 36 282 healthy postmenopausal women and found no reduction in hip fractures or total fractures among women who used vitamin D and calcium supplements vs those who didn’t. In its review of the evidence, however, the USPSTF noted that the dose of vitamin D (400 IU of vitamin D<sub>3</sub>) would be considered low by today’s clinical standards. Wilt, who is also a professor at the University of Minnesota and a staff physician at the Minneapolis VA Medical Center, said the jury is still out on the utility of

higher supplement doses for preventing fractures.

Although vitamin D and calcium supplementation may not be living up to clinicians’ hopes, Wilt said it remains important for individuals to maintain adequate levels of these nutrients, both through their diet and by spending time in the sun to promote vitamin D synthesis by the body.

“We recognize the importance of vitamin D and calcium in overall bone health,” he said.

A reassuring finding came from a 2011 report by the Institute of Medicine (IOM): most US individuals get enough of these 2 nutrients through diet and sun exposure (Slomski A. *JAMA*. 2011;305[5]:453-456). In fact, many US individuals may be getting too much of these nutrients as a result of supplementation, the IOM has noted. In addition to kidney stones, excess calcium intake has been linked to hypercalcemia, hypercalcinuria, vascular and soft tissue calcification, unfavorable interactions involving iron and zinc, and constipation. Excess vitamin D intake has been associated with vitamin D toxicity and related hypercalcemia and hypercalcinuria.

The USPSTF found insufficient evidence to determine whether vitamin D and calcium supplementation may prevent cancer in any age group of men or women. The IOM has also concluded that there are insufficient data to sup-