

INTEGRATIVE PEDIATRICS: THE FUTURE IS NOW

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"The life and health of every infant are, both economically and morally, of paramount importance to society."

— Dr Abraham Jacobi, 1872

The world is at a crossroads. At no point in our collective lifetimes have we witnessed comparable social and economic challenges. Healthcare transformation is no longer a luxury wish-list item; it has become an absolute imperative. The good news? Central to the debate is a growing recognition that true wellness care—primary preventive medicine—must be a cornerstone of any successful plan to resurrect our failing disease-care system. Witness the buzz generated by the Institute of Medicine's February 2009 Summit on Integrative Medicine and the Health of the Public.¹ At long last, public officials charged with operationalizing healthcare system change have acknowledged the value of integrative medicine as part of the solution.

Unfortunately, amidst these optimistic proceedings, the needs of children were once again woefully underrepresented. Only Kathi Kemper, MD, a true pioneer in the pediatric integrative medicine movement, was called as a child health expert to offer testimony at Senate hearings concurrent to the IOM Summit.² Dr Kemper, chair of the American Academy of Pediatrics' Section on Complementary and Integrative Medicine, was the lone voice emphasizing the importance of keeping our children healthy in order to create a healthier nation. If we are to truly create sustainable healthcare system transformation, we need a loud chorus of voices advocating for the well-being of society's most vulnerable. The health and well-being of our children literally reflect the future health of our planet. If children are indeed our most precious natural resource—our future—then our future must be now.

The challenges we face are imposing. The state of children's health today is, according to recent measures, at its most dire. The rise in rates of complex, chronic childhood disorders has been well profiled by the Harvard School of Public Health. In a landmark article in *JAMA*, lead author James Perrin, MD, comments, "These new epidemics in chronic health conditions among children and youth will translate into major demands on

public health and welfare in upcoming decades."³ It is well documented that healthcare expenditures are higher for children with disabilities, both in terms of total system cost and out-of-pocket expenditures.⁴ The burden, then, is doubly-borne by families with affected children.

Here are some concrete examples of the current state of children's health:

- Cancer remains the leading cause of death by disease in children. The age-adjusted annual incidence of cancer in children increased from 129 to 172 cases per million children between 1975 and 2005.⁵
- Obesity is epidemic. Data from National Health and Nutrition Examination Surveys (1976-1980 and 2003-2006) show that the prevalence of obesity has increased: for children aged 2 to 5 years, prevalence increased from 5.0% to 12.4%; for those aged 6 to 11 years, prevalence increased from 6.5% to 17.0%; and for those aged 12 to 19 years, prevalence increased from 5.0% to 17.6%.⁶
- Diabetes now affects 1 in every 500 children. Of those children newly diagnosed with diabetes, the percentage with type 2 ("adult-onset") has risen from less than 5% to nearly 50% in a 10-year period.⁷
- Asthma is the most prevalent chronic disease affecting American children, leading to 15 million missed days of school per year. From 1980 to 2007, the percentage of children with asthma has almost tripled, from 3.6% to 9.1%.⁸
- Approximately 1 in 25 American children now suffer from food allergies. From 1997 to 2007, the prevalence of reported food allergy increased 18% among children under the age of 18 years.⁹
- One in 6 children is diagnosed with a significant neurodevelopmental disability, including 1 in 12 with ADHD.^{10,11} Autism affects 1 in 150 US children, an extraordinary rise in prevalence that has been widely publicized but poorly understood.¹²
- Babies in one study were noted, at birth, to have an average of 200 industrial chemicals and pollutants present in their umbilical cord blood.¹³

But perhaps most dismaying is the lack of urgency displayed by many nations, especially the United States, in addressing these challenges. In a 2007 UNICEF survey, the United States ranked consistently at the bottom in ratings of affluent countries assessed on the welfare of children.¹⁴ This is not an acceptable response to

the crisis in children's healthcare. In fact, the only measurable response has been a rapid and marked increase in the number of prescription medications used to treat symptoms of childhood chronic illnesses.¹⁵ Across the board, we are witnessing increased use of antihypertensives, antihyperlipidemics, type 2 antidiabetics, antidepressants, attention-deficit/hyperactivity disorder medications and asthma-controller therapies, even in the absence of clear data and guidelines for use. There must be a better way.

What is needed now is an absolute paradigm shift. No longer are the one drug—one disease solutions of the past appropriate. Complex challenges call for complex solutions. These are times that demand out-of-the-box thinking and call for transdisciplinary collaboration in all arenas—clinical, research, education, and advocacy. The approach that philosophically and practically best fits the needs for healthcare system transformation is integrative medicine. Let us first look at philosophical values—the underpinnings of our strategy—as formulated in 2004 by a pediatric integrative medicine leadership group, most recently embodied by the Integrative Pediatrics Council.¹⁶

- Children are society's most valuable resource and must be nurtured within the context of healthy families, communities, and environments.
- The optimal functioning of children in all areas of life is essential to society. Improving the care of children will improve the world.
- Children, as well as adults, have inherent self-healing capabilities that can be enhanced and strengthened.
- Child healthcare is a right, not a privilege.
- Awareness of the mind, body, and spirit are essential to the full attainment of quality of life.
- The healthcare system should be open to considering all aspects of the attainment of wellness.

These values inform our everyday practice. Note the emphases on optimal functioning, wellness, and self-healing. Many of these tenets are also embodied in other proposed models for healthcare change. Specifically, in pediatrics and in primary care medicine, the medical home model has been lauded as an ideal practice model.¹⁷ There is great overlap between the principles of the medical home model and the philosophies of pediatric integrative medicine: communication and partnership with families, as well as comprehensive, coordinated, compassionate, and culturally effective care. Sadly, it is precisely those children who are in greatest need of medical home care that are least likely to have it.¹⁸ Primary care that supports wellness and preventive care is increasingly more difficult to both deliver and access. A 2007 study published in *The New England Journal of Medicine* examined various measures of quality of ambulatory care delivered to children. Not surprisingly, children received a far greater percentage of "indicated care" for acute medical problems (67%) than for chronic medical conditions (53%) and for preventive care (41%).¹⁹ Pediatricians and families alike are frustrated with a system that preferentially rewards shorter visit times, performance of invasive procedures, and utilization of aggressive therapies. This

frustration has led in part to increased utilization of complementary and alternative medical (CAM) therapies by children and families,²⁰ especially among those with chronic and special health care needs.²¹⁻²⁹ At the same time, pediatricians have expressed a desire for more education on CAM therapies, seeking to bridge a communication gap with their patients.³⁰⁻³¹ Many practitioners indeed have developed personal CAM practices that have transformed their professional lives. Thus, integrative medical practice clearly addresses the needs of today's families and healthcare practitioners—but is it achievable on a wider scale?

Absolutely. But first, in order to overcome real and perceived barriers to broader adoption of integrative pediatrics as a solution to children's health and healthcare system woes, we must look at effective models that are in place today. There are anecdotal success stories across the world, in diverse cultural and socioeconomic settings; we need careful and systematic evaluation of how and why these models are working. Studies must be designed to look at complex outcome measures, essentially answering this question: are children cared for in these models "better off"? Furthermore, what are the short- and long-term costs, both individually and as a society? In parallel process with the political and economic transformations underway, so must we consider longer-term ramifications of proposed healthcare system changes. This has not been our *modus operandi* as we reach further into the 21st century. Yet are we all better off today than our parents and grandparents? How will today's children answer this question as they soon become the majority voting block in this country?

The time has come to find out. The self-declared "Generation WE"—aka the "Millennials"—as described by Eric Greenberg in his ground-breaking book of the same name, is

*the largest generation in American history. Born between 1978 and 2000, they are 95 million strong, compared to 78 million Baby Boomers. They are independent—politically, socially, and philosophically—and they are spearheading a period of sweeping change in America and around the world.*³²

Healthcare—literally, the reclaiming of their health as a core component of securing their future—is a major concern of these kids. They proudly exclaim that their written manifesto, *The We Declaration*, "is a call to action. It is the beginning of our heroic movement to restore our future, save our nation, and preserve our planet."³³

They ask us to join them in their crusade. How can we refuse? The time has come to join these brave citizens—our children—and reclaim wellness as a birthright. It is time to recognize that—and to act like—our future, indeed, is now.

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