

Kirby's "Evidence of Harm," Evidently Stoking Fear

By ACSH Staff — May 16, 2005

Government conspiracies and industry cover-ups make gripping plots for books and movies, never mind arresting media headlines. That may be what motivated journalist David Kirby to write *Evidence of Harm: Mercury in Vaccines and the Autism Epidemic: A Medical Controversy* (St. Martin's Press, 2005). Undoubtedly, the story will sell many copies. I heard there is even a movie deal in the works. But I fear it will cause parents to balk at vaccinating their children against a host of preventable diseases for fear of autism.

Indeed, the rise in diagnoses of autism spectrum disorders -- the causes of which are not known -- is striking and worthy of investigation, with some incidence estimates at one in 166 children. However, the large majority of reputable scientists and physicians agree that available data do not support a causal relationship between the ethylmercury-based vaccine preservative thimerosal and neurodevelopmental disorder. As a result, Kirby's Brockovich-esque page-turner, featuring a group of parents of autistic children as David and big pharma/big government bureaucrats as Goliath, must be taken for what it is, a story of parental love and determination -- and not for what it isn't, an instructional and unbiased medical text.

Early suspicions of a link between vaccines and autism were based on observations that symptoms of autism generally manifest around the age at which children receive many routine vaccinations. The 80s saw a failed attempt to link autism with the diphtheria-pertussis vaccine. In 1998, a study published in *The Lancet*, which was later renounced and retracted, hypothesized that autism was brought on by an atypical response to the measles-mumps-rubella (MMR) vaccine. Now there are stirrings of a scare blaming aluminum.

Meanwhile, motivated by a study about similarities between symptoms of autism and symptoms of mercury poisoning, a group of distraught parents began investigating thimerosal. Used since the 1930s, when safety studies were not required for new pharmaceutical products, thimerosal never underwent the current rigorous drug approval process and was essentially grandfathered into use. Anxiety understandably worsened in 1999 when the Academy of Pediatrics suddenly recommended that thimerosal be phased out of pediatric vaccines. This move was based on the realization that changes to the pediatric immunization schedule had caused children to receive bolus doses of ethylmercury in excess of the established safety doses for its more toxic cousin, methylmercury. Thus, the battlefield was set.

Evidence chronicles the journey of the parents who began the crusade to prove a causal relationship between thimerosal and autism. On their quest they encounter countless beasts and obstacles, all of which serve to heighten their suspicion of conspiracy: unfazed pediatricians, deaf politicians, defensive drug makers, even a rider added surreptitiously to the Homeland Security Bill that would provide indemnity to pharmaceutical companies and the FDA against vaccine-related

suits. In light of those factors alone, who wouldn't worry there was something to hide?

But despite the unsavory, self-protective actions of the above parties, at the end of the day, the best scientist will only rely on objective, hard, and replicable scientific data, which Kirby, as a journalist, simply does not. Alas, though even the most heartless readers might find themselves hoping these families will find unequivocal *proof* that thimerosal caused the current "autism epidemic," even Kirby himself admits that there is at best *evidence of harm*, and that ultimately, temporal correlation does not equal causation.

In my effort to confirm the consensus arrived at by most reputable members of the medical community, that thimerosal does not cause autism, I have attempted to analyze whatever currently available, objective, and scientifically-sound studies I can get my hands on. In April, in an attempt to keep up-to-date on the current research, I attended a Vanderbilt University event, "Living with Autism: Rates, Causes and Treatment." The position held by each and every one of the prestigious presenters -- all renowned in the fields of genetics, epidemiology, pediatrics, toxicology, neuroscience, psychology, cognitive development, or statistics -- was the same: there is no proof that thimerosal, or even mercury in general, plays a causal role in autism's development.

I was not surprised, as readers of Kirby's book might be, that little time was spent at the conference examining the vaccines/autism link, other than one lecture on the lack of evidence to support it. Additionally, ten parents of autistic children from around the country attended the four-day seminar, *nine* of whom gave short shrift to the thimerosal theory, merely using it as an example of a distraction from finding real treatments and interventions. (Even activists who remain convinced of thimerosal's culpability should be pleased to know thimerosal was removed from all pediatric vaccines in 2001, with the exception of some influenza vaccines; the last lots of thimerosal-containing vaccines should have expired by 2003.)

While Kirby's page-turner reads like a Clancy novel, conjuring fear that something is rotten in Denmark -- particularly within the insensitive medical and federal establishments encountered by the parents Kirby describes -- readers should be reminded that *Evidence* is not a medical text or a resource for scientific information about autism. Unfortunately, it may be construed as such by desperate parents, the population most vulnerable to buying into conspiracy theories and media hype.

Regrettably, a book written instead on the data presented at Vanderbilt by CDC pediatrician and epidemiologist Marshalyn Yeargin-Allsopp (whose study of autism prevalence trends indicates that the "epidemic" may be attributable to better and broader diagnostic criteria) would probably sit on bookstore shelves gathering dust. As we all know, cries of "the sky is falling!" turn far more heads than "all's well!"

Like many others, I almost find myself wishing that thimerosal was to blame, providing us with a clear-cut perpetrator to hold accountable and forever banish. As yet, there is no such culprit we can point to, but there has been progress, more of which will be made as attention shifts from thimerosal to other avenues of inquiry. For example, a recent UCLA study indicated that a region of DNA on chromosome 17 may be involved in autism. Interestingly, the gene mostly affects boys,

which may help explain autism's low incidence in girls.

Generally speaking, most experts agree that autism is likely due to numerous and complex genetic factors, many of which may be acted upon by environmental influences. Perhaps it will even be determined one day that some of these genetic factors predispose some autistics to particular sensitivities, maybe even to heavy metals, casein, gluten, loud noises, bright lights, infectious diseases, or any of the countless other environmental influence that have been associated with autism. And perhaps awareness of these sensitivities, all of which should be researched, will be the basis for the alleviation of symptoms. But the fact will remain that these factors are not causative in and of themselves.

Those who have fought against the demonizing of thimerosal have to put up with absurd accusations of being industry shills. In actuality, many of those who are fighting against the fear -- some of them parents of autistic children themselves -- strive to make clear the value of vaccinations. Ironically, while the incidence of vaccine-preventable illness goes down, as a direct result of the vaccination program, so too does faith that vaccines are necessary. Suddenly, they are accused of doing more harm than good. But one need only look at the increases in pertussis cases in the U.S. and the spread of polio in Africa to realize that we need vaccines still. False and misleading attribution of harm, regardless of intent, only impairs our ability to improve public health. This must be kept in mind as *Evidence* is read.

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