

Autism Research Review

I N T E R N A T I O N A L

A quarterly publication of the Autism Research Institute

Reviewing biomedical and educational research in the field of autism and related disorders

Autism rates dropping in California—is phase-out of thimerosal the reason?

Declining rates of autism, now being reported by the state of California after more than ten years of steep increases, offer strong evidence of the autism-thimerosal connection.

The mercury-laden preservative thimerosal has been used in vaccines since 1930, with children's exposure to thimerosal increasing dramatically in recent decades as the numbers of childhood vaccines climbed. Vaccine manufacturers began phasing thimerosal out in 1999, but were allowed to continue using stockpiles of thimerosal-containing vaccines. Researchers have speculated that if thimerosal indeed were a culprit in autism, rates of autism would begin to fall as fewer children received massive doses of the preservative from multiple vaccines. This decline, they anticipated, would first be detected some years after the thimerosal phase-out began, because children continued to receive multiple thimerosal-containing vaccines for years during the transition, and because autism typically is not diagnosed until children reach preschool age.

Autism advocate Rick Rollens now reports, "Calendar year 2002 was California's all-time record year for the number of new cases of professionally diagnosed, full syndrome, DSM IV autism (NOT including PDD, NOS, Asperger's Syndrome, or any other autism spectrum disorder) entering California's 36-year-old developmental services system with 3,259 new cases. In calendar year 2003 the number of new cases dropped to 3,125 new cases and in calendar year 2004 the number of new cases dropped again to 3,074. For the first half of calendar year 2005, California has added 1,470 new cases compared to 1,518 new cases for the same time period in 2004."

Rollens adds, "It is important to note that in California's developmental services system, children under the age of 3 years old are NOT counted in DDS's quarterly reports. Therefore, as an example, children born in 1999 would not begin to show up in the DDS quarterly reports until at the very earliest, the year 2002." Nearly 90 percent of autistic individuals served by California enter the system by age 6.

Before 2003, California—which compiles some of the nation's most in-depth statistics

on developmental disabilities—had recorded continually climbing rates of autism since the 1990s. Rollens notes, "There are now 28,046 persons with autism in California's system compared to 13,054 in 2000, an increase of 14,992 new children in five short years. It took over 32 years from 1969 to April 2001 to add a total of 14,777 new children to the entire system; it took just five years, from July 2000 to July 2005, to add 14,992 new children."

He concludes, in a comment to the *Los Angeles Times*, "The interesting thing is that, before 2002, every quarterly report had shown an increase over the previous year. Now, that is no longer the case."

David Kirby, author of *Evidence of Harm: Mercury in Vaccines and the Autism Epidemic*, comments, "For months now, a mantra of the thimerosal defenders has been as follows: 'Mercury was removed from vaccines years ago, and we have not seen a drop in autism rates.' It looks like they might have to find a new slogan."

He adds, "Is it too early to tell if this is a permanent and meaningful trend? Of course. Could there be other explanations for the drop, such as a budget-crunching reduction in services? Perhaps. But this very decline, at this very moment, has long been predicted by supporters of the thimerosal-autism theory. At the very least, the quivers of their detractors have now been emptied of one arrow, for the time being anyway."

Kirby concludes, "If the numbers in California and elsewhere continue to drop—and that still is a big if—the implication of thimerosal in the autism epidemic will be practically undeniable."

Editor's note: A new report from Indiana indicates that the same trend—dropping rates of autism in recent years—is being seen in that state.

See "New autism cases level off in state, data show," Thomas H. Maugh II, *Los Angeles Times*, July 13, 2005. David Kirby's comments were made at huffingtonpost.com.

New therapy: Low-dose naltrexone for immunomodulation

by Jaquelyn McCandless, M.D.

Thanks to DAN! doctor Jaquelyn McCandless, author of Children with Starving Brains, for providing this report on a very promising new treatment.

Naltrexone is an FDA-approved drug used as an opiate antagonist for treating opiate drug and alcohol addiction since the 1970s, available in generic form as well as under the brand name ReVia, in 50mg tablets. At regular dosing, usually 50mg a day, it blocks the euphoric response to opiate drugs such as heroin or morphine.

Opioids are known to operate as cytokines, the principal communication signalers of the immune system, creating immunomodulatory effects through opioid receptors on immune cells. A popular immune classification method is referred to as the Th1/Th2 balance: Th1 cells promote cell-mediated immunity, while Th2 cells induce humoral immunity. The inability to respond adequately with a Th1 response can result in chronic infection and cancer; an overactive Th2 response can contribute to allergies and

various syndromes and play a role in autoimmune disease, which most autism spectrum children show on immune testing. The November 13, 2003 issue of the *New England Journal of Medicine* notes: "Preclinical evidence indicates overwhelmingly that opioids alter the development, differentiation, and function of immune cells, and that both innate and adaptive systems are affected."

Bernard Bihari, MD, a New York physician studying the immune responses in AIDS patients, discovered that a very low dose of naltrexone, approximately one-tenth the usual dosage, boosts the immune system and helps fight diseases characterized by inadequate immune function. Low-dose naltrexone (LDN) tends to normalize the immune system by elevating the body's endorphin levels, and accomplishes its results with virtually no side effects or toxicity; naltrexone is considered very safe and has never been reported as being addicting. When this tiny dose of naltrexone is given between 9 p.m. and mid-

continued on page 2