

Administration

■ MISSING THE MERCURY MENACE?

BY NEIL MUNRO



JULIE GERBERDING: The CDC director faces a dispute over mercury in vaccines that is likely to heat up soon.

Parents of autistic children are vigorously challenging a new study by the Centers for Disease Control and Prevention. The study concludes there is no consistent evidence that a mercury-based preservative in CDC-mandated vaccines has caused an increase in the number of children with autism.

A CDC official who helped write the study accepted the critics' charge that it contained many children too young to be diagnosed as autistic. "This is true," said scientist Frank DeStefano.

The CDC's manipulation of the study data, say the parents, hides the true autism rate and obscures the link between autism and vaccinations. The parents and some scientists argue that the large increase in autism rates over the past decade was likely caused by some children's genetic vulnerability to mercury in additional vaccines that the CDC mandated after 1990. The mercury is in a preservative called thimerosal.

After 1999, vaccine makers ended the use of mercury in routine childhood vaccinations, following a request from government officials—although the officials never stated that the mercury was harmful. But the mercury dispute is likely to heat up soon because CDC Director Julie Gerberding and Health and Human Services Secretary Tommy Thompson are weighing a proposal by a panel of vaccine experts to give children between the ages of 6 months and 23 months as many as five flu shots. Gerberding and Thompson can recommend that the flu shots be mercury-free, or they can allow many additional children to receive mercury-laden shots.

The CDC would not say whether Gerberding will urge that thimerosal be left out of the 2004 flu vaccines. According to Rep. Dave Weldon, R-Fla., Gerberding has said she is considering whether to appoint an outside ombudsperson to investigate

the possible link between autism and mercury. Weldon, a physician, wants the data used in the new study to be shared with outside researchers.

This seemingly arcane fight has enormous stakes. If the parents are right, then many infants overseas are endangered by vaccines that contain mercury. Moreover, American parents could follow the example of parents in the U.K., where public distrust of the government's vaccination professionals has reduced vaccination rates and spurred harmful outbreaks of measles and other diseases. Several pharmaceutical companies could be forced to pay billions of dollars if parents' groups are victorious in anti-thimerosal lawsuits in which the CDC study and other reports are being used as ammunition. This fight has already reached Congress: In early 2003, Democratic senators defeated a Republican effort to win legal protections for the companies that made thimerosal-containing vaccines.

The CDC's report, published in the November issue of *Pediatrics*, summarized a three-year study of brain-related diseases in children. The study, titled "Safety of Thimerosal-Containing Vaccines: A Two-Phased Study of Computerized Health Maintenance Organization Databases," began in 1999. It was conducted by a panel of four CDC vaccine experts and four employees of the two HMOs that provided data on more than 100,000 children. The study examined the incidence of a wide variety of medical problems and concluded that no consistent connection existed between the mercury-containing vaccines and the diagnosed neurological problems in children born between January 1992 and December 1998. Overall, "the risk [of autism] does not change ... from the lowest level of exposure [to thimerosal] to the highest level," DeStefano said.

But to reach this conclusion, CDC

experts reduced by roughly 45 percent the number of children in the study who were age 4 or older, said Mark Blaxill, a member of Safe Minds, an Atlanta group that opposes the use of mercury in vaccines. Because autism is normally diagnosed only after age 4, the CDC's method greatly reduced the number of children in the study who could be found with autism, Blaxill said.

According to the report, the older children were excluded because their health records were incomplete. DeStefano declined to say why the CDC did not exclude a comparable proportion of the younger children, to balance out the age groups in the study. "We could follow up on it" by launching another study, he said.

The CDC's exclusion of the older children is akin to excluding many older people from a study on the hazards of smoking, said Mark Geier, a geneticist and a vaccine specialist for 25 years. Geier has investigated the mercury issue for Weldon and gives expert-witness testimony on behalf of parents and some companies in vaccine-related lawsuits.

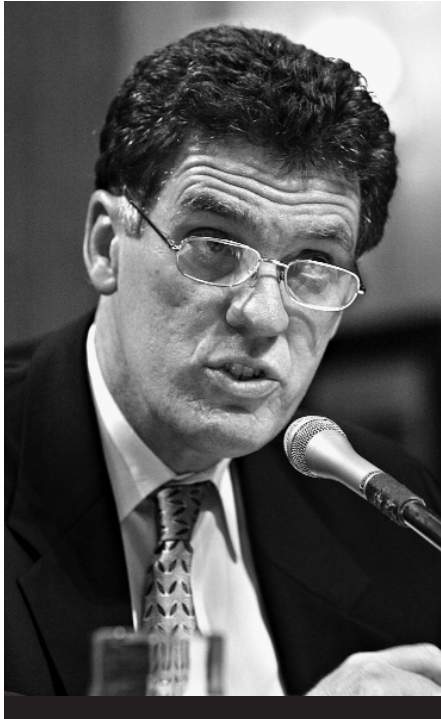
Blaxill said the CDC's professionals also disguised the incidence of autism by treating early symptoms of autism as other illnesses. For example, many autistic children are initially classified before age 4 as having speech and language delays or "misery disorder." The inclusion of many children too young to be definitively diagnosed with autism would result in autistic children's being mislabeled with other ailments, such as those very speech or language delays, Blaxill said. "It is true," DeStefano said, that the study could have mislabeled young autistic children. But, he added, "this study just provided an initial evaluation." CDC officials are now preparing a follow-up study of 300 autistic children and 900 other children, for publication in 2006, he said.

The new study's database was divided by gender for some analyses, but the results were combined in tables for the final article in *Pediatrics*. Because as many as 90 percent of autistics are boys, these tables hide links between autistic boys and mercury amid a population of relatively healthy girls, Geier said. He says that such an approach is like using men's low rates of breast cancer to downplay the cancer's rate in women. A CDC statement said the analysis of boys and girls "mirrored the results" in the *Pediatrics* article.

CDC officials also divided the study into many small studies and then highlighted the differences in the sub-study results to dismiss a link between autism and mercury, Blaxill said. For example, he said, the data from the larger of the two HMOs showed a link between mercury and autism, but CDC professionals tried

to discredit the link by citing differences in the second HMO's data set, which was only one-eighth as large as the first one's sample. The CDC should have either set aside the data from the smaller HMO, or combined all the HMO data, Blaxill said.

"If we had done that," DeStefano countered, "the results from [the larger] HMO-B would have overwhelmed [the smaller] HMO-A." Instead, the scientists tried to perform the same analysis on both HMO data sets, in hopes of discovering a matching trend, he said.



DAVE WELDON: A physician, he wants CDC data on mercury and autism to be shared with outside researchers.

Blaxill cited data prepared by the CDC authors in 2000 and released under a Freedom of Information Act request lodged by Safe Minds. The figures showed that the rate of "neurodevelopmental disorder"—a catchall term that encompasses autism—was six times as great among 14,739 children given more than 75 micrograms of mercury by the third month of life as it was among 4,510 children who were given no mercury.

With Weldon's backing, Geier won limited access to the CDC database used in the new study and then looked at those children who got diphtheria, tetanus, and pertussis shots both with and without mercury. This analysis showed "more than a twentyfold increase in autism" among the children who got mercury in four of these shots, Geier said.

Statements in government e-mails, in conversations, and in documents obtained

under Safe Minds' FOIA request have intensified the parents' suspicion of DeStefano and the CDC. In a July 2000 meeting of the study's authors and advisers, Richard Johnston, a pediatrics professor at the University of Colorado, said, "I do not want [my] grandson to get a thimerosal-containing vaccine until we know better what is going on." Johnston confirmed he said this, but would not comment on the CDC study, because he has joined a pending review of the controversy at the Institute of Medicine. The institute is part of the private National Academy of Sciences.

The chairman of the CDC study, Thomas Verstraeten, has come under critics' scrutiny because he left the CDC to take a job with vaccine maker Glaxo-SmithKline. Yet according to e-mails and transcripts obtained by Safe Minds, in 2000 Verstraeten urged fellow CDC officials to carefully consider a link between mercury and autism: "I do not wish to ... sound like being convinced that thimerosal is or was harmful, but at least I feel we should use sound scientific argumentation and not let our standards be dictated by our desire to disprove an unpleasant theory." Once Verstraeten had joined Glaxo-SmithKline, "his involvement in this study was limited to reviewing drafts of the manuscript," according to a CDC statement.

Since 1990, an increasing number of children have been diagnosed with the most acute form of autism. In the 1980s, this diagnosis was given annually to roughly 1 in 10,000 children. But since then, experts have reported a huge increase. In five counties surrounding Atlanta, the rate has grown to roughly 1 in 325 children, according to a CDC study. According to the Education Department, 65,396 autistic children were in federal school programs in 2000, up from 12,222 in 1993. The 2000 total included few children under age 6.

Few adult autistics can work. Lifetime health care, therapy, and support costs amount to more than \$1 million. Parents initially bear the financial burden, but as the children become adults, the costs shift to the states or the federal government.

Some parents of autistic children say vaccinations gave their children more than 100 times the maximum intake of mercury recommended by the Environmental Protection Agency. One of those parents is Lyn Redwood, a founder of Safe Minds. She is a nurse and the mother of a 9-year-old autistic boy, Will. "I have 'before [vaccination]' pictures where he is smiling, gorgeous, and looking at the camera, and I have 'after' pictures ... and there's a shell of a child left," she said. ■

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