



## **The Facts Behind the “CDC Whistleblower” Accusations Spotlighted in the film *Vaxxed***

In August 2014, anti-vaccine activists Brian Hooker and Andrew Wakefield released a video of recorded phone conversations with Dr. William Thompson, a researcher at the U.S. Centers for Disease Control and Prevention (CDC). In the recordings, Dr. Thompson claims to have evidence that the CDC altered the rules of data collection for a study in order to omit data which would have shown African American boys had a greatly higher incidence of autism after MMR (measles-mumps-rubella) vaccination. Hooker used the raw data provided by Dr. Thompson to write and publish his own analysis. Dr. Thompson, however, has not spoken about the issue in public, releasing only a statement through his lawyer that does not address the claims he made to Hooker and Wakefield. Independent reviews of his claims have shown there is no evidence of an increase in autism cases after vaccination in African American boys or any other subset of the population.

### **The Story**

#### **Q: Who is Dr. William Thompson?**

A: Dr. William Thompson is a psychologist employed by the CDC. He was a co-author on a number of vaccine safety studies published by the CDC including the study that, he claims, omitted a correlation between autism and vaccines: DeStefano F, Bhasin TK, Thompson WW, Yeargin-Allsopp M, Boyle C., [Age at first measles-mumps-rubella vaccination in children with autism and school-matched control subjects: a population-based study in metropolitan Atlanta. \*Pediatrics\*. 2004 Feb;113\(2\):259-66. PMID 14754936.](#)

#### **Q: Who is Brian Hooker and what is his association with Dr. William Thompson?**

A: Brian Hooker is a biochemical engineer who has a son with autism. He believes his son’s autism was caused by vaccination. Hooker published an article in October 2014 in *Translational Neurodegeneration* based on Thompson’s claims. This paper was retracted by the publication

#### **Q: What did Brian Hooker’s reanalysis of the CDC paper claim to show?**

A: Hooker concluded in his paper: “The present study provides new epidemiologic evidence showing that African American males receiving the MMR vaccine prior to 24 months of age or 36 months of age are more likely to receive an autism diagnosis.”

#### **Q: Why did Brian Hooker’s reanalysis of the CDC study show a higher risk of autism in African American boys who received the MMR vaccine?**

A: Brian Hooker used a different methodology than the CDC authors did to analyze the data. When collecting data, you must know what type of study you are conducting to ensure you collect the data correctly. Using a different methodology after the data is collected will produce unreliable results. It’s similar to getting the ingredients for a cake, but then trying to make a pie.



In addition, Hooker manipulated the data to suit his purpose. There were not enough African American boys of a specific age range in the original study to draw any definitive conclusions, so he extended the age range. This is what epidemiologists call “The Texas Sharpshooter Effect,” an approach in which someone draws a target around the shots already taken to prove he’s a good shot. Hooker selected data points that supported his theory, rather than allow the data to drive him to a conclusion.

**Q: What did Dr. Thompson claim about the MMR vaccine and autism?**

A: Dr. Thompson claims that the DeStefano study authors did not include in their article evidence that showed African American boys were more likely to develop autism after receiving the MMR vaccine.

**Q: Why did Dr. Thompson make this claim?**

A: It is unclear who contacted whom first, Thompson or Hooker 2013. It is unclear why Dr. Thompson suddenly decided to speak to Dr. Hooker about his concerns nearly a decade after the study was published.

**Q: Did the CDC intentionally leave out information from a study on vaccines and autism?**

A: The CDC did not omit any pertinent information from their study. African American boys in the geographic area that was studied were not being vaccinated at the same rate as other ethnicities at the time of the study. Those who were diagnosed with autism and not vaccinated had to receive all recommended vaccines before they were eligible to access autism services. A large number of African American boys diagnosed with autism therefore had to catch up on recommended vaccines. The study authors did not include these individuals in the study because they were already diagnosed with autism at the time of their vaccinations.

**The Science**

**Q: Is there a higher risk of autism associated with the MMR vaccine in African-American boys?**

A: There is not a higher risk of autism in African American boys or any other ethnicity.

**Q: Is there any truth to Dr. William Thompson’s claims?**

A: There is absolutely no evidence that the CDC concealed or omitted any data in this or other studies that have shown there is no connection between vaccines and autism.

**Q: Why was Brian Hooker’s reanalysis of the CDC paper retracted?**

A: The editors of *Translational Neurodegeneration* decided to retract the article because, “there were undeclared competing interests on the part of the author which compromised the peer review process. Furthermore, post-publication peer review raised concerns about the validity of the methods and statistical analysis, therefore the Editors no longer have confidence in the soundness of the findings. We apologize to all affected parties for the inconvenience caused.”



**Q: Is the MMR vaccine associated with autism?**

A: Dozens of studies have demonstrated there is no connection between the MMR vaccine, or any other vaccine, and autism. Many of these studies are posted below for reference.

**For more information about the safety of the MMR vaccine, visit:**

- The [Vaccine Education Center](#) at the Children's Hospital of Philadelphia
- [Every Child By Two](#) and [www.VaccinateYourFamily.org](http://www.VaccinateYourFamily.org)

**To read further analysis of this issue, we suggest:**

- **Skeptical Raptor:** <http://www.skepticalraptor.com/skepticalraptorblog.php/vaxxed-emotional-appeal-flier/>
- **Science-based Medicine:** <https://www.sciencebasedmedicine.org/the-cdc-whistleblower-saga-updates-backlash-and-i-hope-a-wrap-up/>
- **Skeptical Raptor:** <http://www.skepticalraptor.com/skepticalraptorblog.php/great-cdc-coverup-suppressing-evidence-mmr-vaccines-autism/>

**Published Scientific Research on Safety of Vaccines:**

- ["Autism Occurrence by MMR Vaccine Status Among US Children With Older Siblings With and Without Autism"](#)  
*JAMA*, Jain, *et al.* (April 21, 2015)
- ["Association Between Vaccine Refusal and Vaccine-Preventable Diseases in the United States: A Review of Measles and Pertussis"](#)  
*JAMA*, Phadke, *et al.* (March 15, 2016)
- ["Safety of Vaccines Used for Routine Immunization in the United States"](#)  
Agency for Healthcare Research and Quality, Rockville, MD. (July 2014)
- ["Safety of Vaccines Used for routine Immunization of US Children: A Systematic Review"](#)  
*Pediatrics*, Maglione *et al.* (July 1, 2014)
- ["Prenatal and Infant Exposure to Thimerosal From Vaccines and Immunoglobulins and Risk of Autism"](#)  
*Pediatrics*, Cristofer S. Price, ScM, William W. Thompson, PhD *et al.* (September 13, 2010)



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- [Neuropsychological Performance 10 Years After Immunization in Infancy With Thimerosal-Containing Vaccines](#)  
*Pediatrics*, Alberto Eugenio (February 2009)
- [Lack of Association Between Measles Virus Vaccine and Autism with Enteropathy: A Case-Control Study](#)  
*PLoS One*, M Hornig (September 2008)
- [Measles Vaccination and Antibody Response in Autism Spectrum Disorders](#)  
*Archives of Disease in Childhood*, Gillian Baird, F.R.C.Paed. (February 2008)
- [Continuing Increases in Autism Reported to California's Developmental Services System](#)  
*Archives of General Psychiatry*, Robert Schechter, MD, MSc and Judith K. Grether, PhD (January 2008)
- [Early Thimerosal Exposure and Neuropsychological Outcomes at 7 to 10 Years](#)  
*New England Journal of Medicine*, Thompson WW, Price C, Goodson B, et al. (September 27, 2007)
- [Lack of Association Between Rh Status, Rh Immune Globulin in Pregnancy and Autism](#)  
*American Journal of Medical Genetics*, Judith H. Miles and T. Nicole Takahashi (May 2007)
- [Pervasive Developmental Disorders in Montreal, Quebec, Canada: Prevalence and Links With Immunizations](#)  
*Pediatrics*, Eric Fombonne, MD (Volume 118, Number 1, July 2006)
- [Comparison of Blood and Brain Mercury Levels in Infant Monkeys Exposed to Methylmercury or Vaccines Containing Thimerosal](#)  
*Environmental Health Perspectives*, Thomas M. Burbacher, PhD (April 2005)
- [MMR Vaccination and Pervasive Developmental Disorders: A Case-Control Study](#)  
*The Lancet*, Liam Smeeth, MRCP (September 11, 2004)
- [Thimerosal Exposure in Infants and Developmental Disorders: A Prospective Cohort Study in the United Kingdom Does Not Support a Causal Association](#)  
*Pediatrics*, John Heron and Nick Andrews, PhD and Jean Golding, DSc (September 2004)
- [Neurotoxic Effects of Postnatal Thimerosal are Mouse Strain Dependent](#)  
*Molecular Psychiatry*, M Hornig, MD (June 2004)
- [Safety of Thimerosal-Containing Vaccines: A Two-Phased Study of Computerized Health Maintenance Organization Database](#)



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*Pediatrics*, Thomas Verstraeten, MD (November 2003)

- [Association Between Thimerosal-Containing Vaccine and Autism](#)  
*Journal of the American Medical Association*, Anders Hviid, MSc (October 2003)
- [Thimerosal and the Occurrence of Autism: Negative Ecological Evidence from Danish Population-Based Data](#)  
*Pediatrics*, Kreesten M. Madsen, MD (September 2003)
- [Autism and Thimerosal-Containing Vaccines: Lack of Consistent Evidence for an Association](#)  
*American Journal of Preventive Medicine*, Paul Stehr-Green, DrPh, MPH (August 2003)
- [Association of Autistic Spectrum Disorder and the Measles, Mumps, and Rubella Vaccine](#)  
*Archives of Pediatrics & Adolescent Medicine*, Kumanan Wilson, MD, MSc, FRCP (July 2003)
- [Evidence of Brain Overgrowth in the First Year of Life in Autism](#)  
*Journal of American Medical Association*, Eric Courchesne, Ph.D. (July 2003)
- [Thimerosal and Autism?](#)  
*Pediatrics*, Karen Nelson, MD (March 2003)
- [Neurologic Disorders After Measles-Mumps-Rubella Vaccination](#)  
*Pediatrics*, Annamari Makela, MD (Volume 110, Number 5, November 2002)
- [Mercury Concentrations and Metabolism in Infants Receiving Vaccines Containing Thimerosal: A Descriptive Study](#)  
*The Lancet*, Michael Pichichero, MD (November 2002)
- [No Evidence for a New Variant of Measles-Mumps-Rubella-Induced Autism](#)  
*Pediatrics*, Eric Fombonne, FRCPsych (Volume 108, Number 4, October 2001)