



## **A Review of Seth Mnookin's "The Autism Vaccine Controversy and the Need for Responsible Science Journalism"**

### **The Wrong Controversy!**

The author begins by intentionally misdirecting the reader.

The author does this by portraying the debate as implicitly being the controversy about the presence or absence of a causal link between 'autism' and 'vaccine'.

However, the real controversy in the USA is about all aspects of the current recommended vaccination program and the possible causal links to the significant rise in the incidence and prevalence of a wide variety of chronic neurodevelopmental, developmental, immune system and behavioral disorders.

These chronic illness increases in American children are reflected in the growing overall level of chronic disease (as seen in the 1994, 2000 and 2006 National Health and Nutrition Examination Survey [NHANES] reports<sup>1</sup>), which increased from 12.8% in the 1994 cohort to 25.1% in the 2000 cohort, and to 26.6% in the 2006 cohort<sup>2</sup>.

What other than:

- 1.** The recognized increase in the number of vaccines and vaccine doses that are known to imbalance/activate the circulating human immune-system,
- 2.** The addition of some specific vaccine(s) and/or doses thereof, and/or
- 3.** Increased doses of some 'poisonous' component(s) in one or more vaccines could be the major causal factors in the observed *concomitant* time-offset increase in the overall immune/autoimmune-mediated chronic illness incidence in the children of the United States of America (USA)?

Further, the author, Seth Mnookin, uses "tobacco science" — efforts aimed at burying the independent causal evidence under an avalanche of supposedly valid statistical studies showing no statistically significant evidence of a causal link — to focus on the hardest-to-prove causal link, the linkage between:

- a.** The risk of "autism" — typically portrayed as some "causeless" psychiatric disorder, and
- b.** Some aspect of the "vaccine" program:
  - i.** Number of vaccines in the program (or administered at one time),
  - ii.** A given vaccine (e.g., a measles-mumps-rubella [MMR] vaccine or a hepatitis B vaccine), or
  - iii.** Some specific component (e.g., Thimerosal or aluminum adjuvant) found in one or more vaccines.

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<sup>1</sup> <http://www.medscape.com/viewarticle/717030>, last visited on 6 January 2012

<sup>2</sup> <http://www.medscape.com/viewarticle/717030>, last visited in 6 January 2012 —

"February 16, 2010 — The rate of chronic health conditions among children in the United States increased from 12.8% in 1994 to 26.6% in 2006, particularly for asthma, obesity, and behavior and learning problems, according to results of a new prospective study published in the February 17 issue of the Journal of the American Medical Association" and "The end-study prevalence of any chronic health condition was 12.8% (95% CI, 11.2% - 14.5%) for cohort 1 in 1994, 25.1% (95% CI, 22.7% - 27.6%) for cohort 2 in 2000, and 26.6% (95% CI, 23.5% - 29.9%) for cohort 3 in 2006."

When the United States (US) Centers for Disease Control and Prevention (CDC) is forced to turn over unredacted copies of all of the fact-revealing e-mails<sup>3</sup> between CDC personnel and the various researchers whose published studies these personnel designed and executed, partially or fully funded, or otherwise oversaw or influenced, even Mnookin will be forced to accept that the Establishment has been concealing the truth that increasing (or decreasing) the Thimerosal exposure from Thimerosal-preserved vaccines was, is, and continues to be, causally linked to the subsequent increase (or decrease) in the incidence and prevalence of “autism” and other neuro-developmental, developmental, and behavioral deficits in children given such vaccines.

### “*Science Journalism*”

Rather than using the author’s title phrase, “*Science Journalism*”<sup>4</sup>, except when quoting this author, this reviewer will employ the more linguistically and logically appropriate term, “science-based”, when speaking of journalism or journalists.

Keeping the preceding introductory remarks in mind, this reviewer will now turn his attention to a passage-by-passage assessment of the text of this article and the assertions that it makes.

### Defending Vaccines by Attacking “Key Scientific Leaders”

“Earlier this week, *The Panic Virus*, my book on the controversy over vaccines and autism, was released in paperback. While there haven't been many scientific advances in this particular issue since the hardcover edition was published -- the evidence supporting vaccines' paramount place in public health efforts and the total lack of corroboration supporting a causal connection between vaccines and autism remain as strong today as they were a year ago -- there have been new developments in the story. Their coverage highlights an enduring passion of mine: The need for reliable, responsible science journalism.”

First, the author begins by touting the paperback edition of his book, “*The Panic Virus*”.

After claiming that “... *there haven't been many scientific advances in this particular issue since the hardcover edition was published*”, the author asserts, “*the evidence supporting vaccines' paramount place in public health efforts and the total lack of corroboration supporting a causal connection between vaccines and autism remain as strong today as they were a year ago*”.

With respect to the first part of the author’s claim of “*the evidence supporting vaccines' paramount place in public health efforts ...*”, this scientifically unsupported assertion of “*vaccines' paramount place in public health efforts*” only exists in the minds of vaccine apologists and adherents.

Historically, health science supports the reality that: **a)** truly clean water which is

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<sup>3</sup> <http://www.prnewswire.com/news-releases/scandal-exposed-in-major-study-of-autism-and-mercury-132519518.html>, last visited on 6 January 2012.

<sup>4</sup> [http://en.wikipedia.org/wiki/Science\\_journalism](http://en.wikipedia.org/wiki/Science_journalism), last visited on 6 January 2012.

free of harmful levels of all contaminants, **b**) sanitation, **c**) personal hygiene, **d**) adequate supplies of uncontaminated, healthy food, **e**) adequate non-toxic clothing **f**) adequate shelter from the elements, and **g**) freedom from war within the civilization have been, and still are, the keys to the survival, and flourishing of, human civilization for thousands, tens of thousands or hundreds of thousands of years, depending on ones views on the history of humans on the Earth, before “vaccines” were developed.

When any of these keys are removed, the health of the civilization was and is weakened, often fatally, as the fall of the Roman Empire clearly indicates.

With respect to the second part of this author’s claim concerning “*the total lack of corroboration supporting a causal connection between vaccines and autism ...*”, more than a hundred peer-reviewed, published articles support some causal connection between “vaccines” and “autism” or other neurodevelopmental, developmental and behavioral conditions (see footnote “**12.1.**”, which lists ten recent examples).

In general, vaccines are only the latest overly “hyped” medical panaceas.

Factually, most of the vaccines for contagious diseases were only introduced into the USA after the disease for which they are claimed to provide “immunity” (i.e., lifetime protection from contracting that disease) was naturally waning in the American population because of improvements in the supply of clean water, sanitation, nutrition and hygiene.

At least initially, most vaccines are touted to the American public by an allopathy-centric healthcare establishment as providing immunity without proof that their claims of post-vaccination disease “elimination” are not simply a coincidence<sup>5</sup> or, *as the applicable vaccine apologists’ mantra drones*, “correlation is not proof of causation”.<sup>6</sup>

Moreover, perhaps because there is little or none, instead of providing any independently verifiable evidence for the author’s “*total lack of corroboration ...*” assertion, the author chooses to attack the messengers who have overseen or directly provided independently verifiable scientific proof of a causal connection between: **a**) vaccination and **b**) neurodevelopmental disorders (including “autism”) and/or other developmental/behavioral disorders.

What then, other than author’s own ego and Establishment support, qualifies this author to “objectively” judge what truly “*reliable, responsible science journalism*” is?

- “• Last January, Andrew Wakefield, the discredited British gastroenterologist whose 1998 paper sparked the first wave of fears that vaccines might be causally connected to autism, was further disgraced when the editors of the *British Medical Journal* declared his work ‘an elaborate fraud.’ (By that point, Wakefield had already forfeited his medical license for a litany of moral, ethical, and professional misdeeds -- including an incident where he paid

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<sup>5</sup> Long-term studies (>20 years) in an environment where the disease is endemic that would compare the overall disease outcomes in healthy volunteers who chose not to be vaccinated with any vaccine to those who elected to be vaccinated with the initial vaccine series would be required before one could accurately know what the disease-reduction level truly was.

<sup>6</sup> Properly, the science-based mantra should be, “time-appropriate, scientifically plausible correlation is evidence, but not proof, of causation”.

children at his young son's birthday party to donate their blood for his experiments.) With little left to lose, Wakefield seemed to fully embrace the fringe: In June, he headlined a rally titled ‘The Masterplan: The Hidden Agenda for a Global Scientific Dictatorship’ with a cohort of 9/11 Truthers, One World Government conspiracists, and anti-fluoridationists.”

Rather than attempting to provide “*science journalism*”, the author chooses to attack the messenger rather than the message that the messenger was openly concerned with the safety of several combination measles, mumps, and rubella (MMR) vaccines, whose safety had not been properly studied from their introduction in 1971 in the USA (or later) through 2004<sup>7</sup>, including two MMR vaccines containing the Urabe strain of mumps that were subsequently withdrawn from use in Canada and/or the UK because of the often lethal brain inflammation they were causing to those infants vaccinated with them.

Yet, this author fails to address the published Danish papers claiming negative evidence for an autism-vaccine link in which one of the paper’s authors was Denmark’s Dr. Poul Thorsen, who:

- a. Was dismissed from Aarhus University for his unethical, contract-breaching conduct,
- b. Is currently under indictment for tax evasion in Denmark, and
- c. Has been indicted in the USA for mail fraud and money laundering.

In addition, the author fails to address the fact that recently revealed FOIA-acquired e-mails between CDC officials and the authors of one Danish article claiming, “Negative Ecological Evidence” between “Thimerosal and the Occurrence of Autism”<sup>8</sup>, have clearly revealed that:

1. The authors of that Danish article, which included Dr. Thorsen, apparently knowingly agreed to misrepresent the fact that, after Denmark removed Thimerosal-preserved vaccines from its vaccination program, the rates (incidence and prevalence) for “autism” subsequently declined in Denmark’s children; and
2. Since these redacted e-mails plainly reported declining incidence and prevalence in “autism” after the Thimerosal-preserved vaccines were removed, the Danish findings clearly established a causal link between the use of Thimerosal-preserved vaccines and the risk of “autism” even though the typical level of Thimerosal exposure from the Thimerosal-preserved vaccines used there was significantly lower in Danish children than the exposure level was in American children.

Further, this author does not: **a)** attack Dr. Thorsen’s ethics, **b)** question the validity of the articles in which Dr. Thorsen was a named author, or **c)** report the recently revealed facts about the article in question – especially the fact that it proves a causal injected-Thimerosal (mercury)—autism link.

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<sup>7</sup> <http://u2.lege.net/whale.to/vaccines/cochrane.pdf>, last visited 15 January 2012, that was published in 2006.

<sup>8</sup> Madsen KM, Lauritsen MB, Pedersen CB, Thorsen P, Plesner A-M, Andersen PH, Mortensen PB. Thimerosal and the Occurrence of Autism: Negative Ecological Evidence From Danish Population-Based Data. *Pediatrics* 2003; **112**: 604-606.

Obviously, this author's prejudice, remunerated/influenced point of view, belief in vaccines as a panacea, or some combination thereof has completely clouded this author's ability to write objectively and precludes his being accepted as a "*reliable, responsible science*" journalist.

- “• 2011 proved equally inglorious for Mark and David Geier, a father-son research team that is almost as lionized as Wakefield himself in anti-vaccine circles. For years, the Geiers have peddled a sham 'cure' for autism that involves regular injections of Lupron, a powerful drug used to chemically castrate sex offenders. (In addition to being incredibly painful, the Geiers' 'Lupron protocol' is very expensive: Treatment at one of their clinics can cost up to \$70,000 or more a year.)”

Here, if the author understands medicine and current medical practice, the author is knowingly misrepresenting a recognized (by mainstream medicine) treatment for developing children who have been proven to have significantly elevated levels of androgens for their age as “a '*sham*' cure for autism”.

Moreover, instead of citing any applicable peer-reviewed published paper, recognized medical standard of care, or medical textbook to support his views, this author again chooses to include a link to an on-line newspaper article ([http://articles.chicagotribune.com/2009-05-21/news/chi-autism-lupron-may21\\_1\\_autism-one-conference-autistic-children-lupron-protocol](http://articles.chicagotribune.com/2009-05-21/news/chi-autism-lupron-may21_1_autism-one-conference-autistic-children-lupron-protocol)), as the source for his claim – so much for his claim for having a passion for “*reliable, responsible science journalism*”.

As far as Lupron's being “a powerful drug used to chemically castrate sex offenders”<sup>9</sup>:

1. “Chemical castration” is a misnomer<sup>10</sup> whose use has no place in responsible, science-based journalism, and
2. Factually, the less costly steroidal drug, depot medroxyprogesterone acetate (DMPA), Pfizer's “Depo-Provera®”, is used as the drug of choice for the “chemical castration” of sex offenders<sup>10</sup>.

However, *as it has been shown to do*, the “*Geiers*” treatment protocol actually seeks to normalize the hormonal processes in that subset of differentially diagnosed developmentally injured children who have been proven to have significantly elevated, age-inappropriate androgen levels.

Further, *along with the other diagnostic-work-up-based treatments used to promote the healing of such children*, the Geiers' hormone-normalization protocols have apparently improved the health of many of these children and

<sup>9</sup> <http://criminal.findlaw.com/crimes/more-criminal-topics/sex-offenders/chemical-and-surgical-castration.html>, last visited on 6 January 2012.

<sup>10</sup> [http://en.wikipedia.org/wiki/Chemical\\_castration](http://en.wikipedia.org/wiki/Chemical_castration), last visited on 6 January 2010, which, among other things, states, “Unlike surgical castration, where the testicles or ovaries are removed through an incision in the body,<sup>[1]</sup> chemical castration does not actually castrate the person, nor is it a form of sterilization. For this reason, the term “chemical castration” has been called a misnomer.<sup>[2]</sup>

[1] ‘Can Castration Be a Solution for Sex Offenders? Man Who Mutilated Himself in Jail Thinks So, but Debate on Its Effectiveness Continues in Va., Elsewhere’ by Candace Rondeaux for the *Washington Post*, July 5, 2006

[2] ‘Chemical castration - breaking the cycle of paraphiliac recidivism’ *Social Justice*, Spring, 1999 by Christopher Meisenkothen.”

their socialization with others to the point that some other mainstream doctors across the country have begun adopting the Geiers' hormone-normalization approach to treating that subset of developmentally delayed children who have significantly elevated levels of one or more androgens.

Moreover, in responsible, science-based journalism, the claimed level of pain and the cost of the treatment are, or should be, secondary issues at best.<sup>11]</sup>

“In April, an investigation by the Maryland State Board of Physicians found the Geiers' treatment ‘endangers autistic children and exploits their parents by administering to the children a treatment protocol that has a known substantial risk of serious harm and which is neither consistent with evidence-based medicine nor generally accepted in the relevant scientific community.’”

To date, as far as this reviewer can ascertain, the Maryland State Board of Physicians has failed to publish any scientific or medical proof to back up its assertions.

Moreover, in a nation where the accused are presumed innocent until proven guilty, the author, rather than speaking as a *“reliable, responsible”* journalist, chooses to parrot the Maryland Board's unsubstantiated findings.

“By the end of the year, Mark Geier's license to practice medicine had been suspended in California, Indiana, Maryland, New Jersey, Virginia, and Washington State; his son, meanwhile, had been charged with practicing medicine without a license.”

Choosing to report unresolved medical licensing issues that are actually “telemedicine license” issues in several of the cited states, the author again seems to be acting as less than a reliable, responsible journalist.

Factually, only the Maryland State Board of Physicians has charged David Geier *“with practicing medicine without a license”*.

However, at a minimum, a responsible journalist would have reported that the Geiers are vigorously contesting these unproven charges by the Maryland Board and looking forward to the day that they can bring these issues before a court of law – not an extralegal board and its extralegal administrative processes that ignore both civil law and the defendants' constitutional rights.

“These revelations, were, for the most part, reported in a way that accurately emphasized the moral and scientific bankruptcy of anti-vaccine claims. Not surprisingly, none of this diminished Wakefield's or the Geiers' standing among true believers. (Several months after the *BMJ* report was published, an anti-vaccine leader was quoted *The New York Times Magazine* as saying, ‘To our community, Andrew Wakefield is Nelson Mandela and Jesus Christ rolled up into one.’)”

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<sup>11</sup> A child being treated for type I diabetes with injectable insulin probably experiences more pain from the multiple shots each day than a child getting a daily Leuprolide acetate injection and, in addition, most suffer multiple daily finger sticks to monitor their glucose levels.

Yet this author calls no attention to this common scientific reality about the pain associated with multiple daily insulin injections. Further, the cost of the annual cost of the leuprolide acetate injections is much less than the monthly costs for some chemotherapeutic drugs used to treat cancer or the annual costs for some of the newer, more effective AIDS-suppression cocktails that must be taken for a the patient's lifetime.

This reviewer, a scientist and science-based journalist is neither a vaccine believer nor a vaccine disbeliever.

With respect to the author's remarks here, this reviewer simply observes that this writer cites no legal or peer-reviewed publication to support his statements.

Moreover, the author also fails to report that some recognized scientists around the world and their peer-reviewed published studies support many of the vaccine-related research findings published by the Geiers and/or the gastrointestinal and other studies overseen and/or published by Dr. Wakefield and his colleagues.

Furthermore, many of the Geiers' findings concerning the impact of vaccines on "autism" and other developmental disorders as well as Wakefield's gastrointestinal findings have been independently replicated or supported by independent studies done in several countries where such research studies and publications are currently less regulated by the "healthcare", "pharmaceutical", "medical" and/or "public health" establishments.<sup>12</sup>

Finally, this reviewer notes that the links the author provides are to articles that general mainstream media outlets have chosen to publish and not even to those published by recognized general scientific periodicals such as *Scientific American*.

"What might be more surprising is the legacy of years of dispatches that created a false equivalency between verifiable facts and Wakefield's and the Geiers' outlandish allegations. These began almost the moment Wakefield held a press conference for his since retracted 1998 paper: Despite the fact that he was virtually alone in recommending the measles-mumps-rubella (MMR) vaccine be dropped, the London dailies ran stories like 'Ban Three-In-One Jab, Urge Doctors' and 'Doctors Link Autism to MMR Vaccination.'"

First, responsible, science-based journals have published the articles that clearly support many of Wakefield's and the Geiers' scientific findings.

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<sup>12</sup> Though there are many applicable references, the reviewer has limited the articles listed to a few examples:

1. For the Geiers: **a)** Laurente J, Remuzgo F, Ávalos B, Chiquinta J, Ponce B, Avendaño R, Maya L. [Neurotoxic effects of thimerosal at vaccine doses on the encephalon and development in 7 days-old hamsters]. *An Fac Med (Lima)* 2007 Sep; **68**(3): 222-237 [Spanish]; **b)** Marques RC, Dórea JG, MF, Wanderley R, Bastos WR, Malm O. Hair mercury in breast-fed infants exposed to thimerosal-preserved vaccines. *European J Pediatrics* 2007; **166**(9): 935-941; **c)** Minami T, Miyata E, Sakamoto Y, Yamazaki H, Seiji Ichida S. Induction of metallothionein in mouse cerebellum and cerebrum with low-dose thimerosal injection. *Cell Biol Toxicol* 2010; **26**(2): 143-152; **d)** Rodrigues JL, Serpeloni JM, Batista BL, Souza SS, Barbosa F. Identification and distribution of mercury species in rat tissues following administration of thimerosal or methylmercury. *Arch Toxicol* 2010; **84**(11): 891-896. Volume 84, Number 11, Pages 891-896; **e)** Olczaka M, Duszczyk M, Mierzejewski P, Meyza K, Majewska MD. Persistent behavioral impairments and alterations of brain dopamine system after early postnatal administration of thimerosal in rats. *Behavioural Brain Res* 2011 Sep; **223**(1): 107-118; **f)** Ida-Eto M, Akiko Oyabu A, Ohkawara T, Tashiro Y, Narita N, Narita M. Embryonic exposure to thimerosal, an organomercury compound, causes abnormal early development of serotonergic neurons. *Neurosci Lett* 2011 Nov; **505**(2): 61-64; **g)** Shandley K, Austin DW. Ancestry of Pink Disease (Infantile Acrodynia) Identified as a Risk Factor for Autism Spectrum Disorders. *J Toxicol Environ Health, A* 2011; **74**(118): 1185-1194; **h)** Sulkowski ZL, Chen T, Midha S, Zavacki AM, Sajdel-Sulkowska EM. Maternal Thimerosal Exposure Results in Aberrant Cerebellar Oxidative Stress, Thyroid Hormone Metabolism, and Motor Behavior in Rat Pups; Sex- and Strain-Dependent Effects. *Cerebellum* 2011 Oct 21; online: DOI: 10.1007/s12311-011-0319-5; and **i)** Hewitson L, Houser LA, Stott C, Sackett G, Tomko JL, Atwood D, Blue L, White ER. Delayed Acquisition of Neonatal Reflexes in Newborn Primates Receiving A Thimerosal-Containing Hepatitis B Vaccine: Influence of Gestational Age and Birth Weigh. *J Toxicol Environ Health, A* 2010; **73**(19): 1298-1313; and **j)** Olczak M, Duszczyk M, Mierzejewski P, Wierzba-Bobrowicz T, Majewska MD. Lasting neuropathological changes in rat brain after intermittent neonatal administration of thimerosal. *Folia Neuropathol.* 2010; **48**(4): 258-269; and
2. For Dr. Wakefield: **a)** Wang, LW, Tancredi DJ, Thomas DW. The Prevalence of Gastrointestinal Problems in Children Across the United States With Autism Spectrum Disorders From Families With Multiple Affected Members. *J Develop Behav Pediatrics* 2011 Jun; **32**(5): 351-360; **b)** Pang KH, Hain GD. Croaker Constipation in children with autism and autistic spectrum disorder. *Pediatric Surg Internat* 2011; **27**(4): 353-358; **c)** Wasilewska J, Jarocka-Cyrta E, Kaczmarek M. [Gastrointestinal abnormalities in children with autism]. *Pol Merkur Lekarski.* 2009 Jul; **27**(157): 40-43 [Polish]; **d)** MacDonald TT, Domizio P. Autistic enterocolitis; is it a histopathological entity? *Histopath* 2007 Feb; **50**(3):371-379; discussion 380-384; **e)** Ashwood P, Anthony A, Torrente F, Wakefield AJ. Spontaneous mucosal lymphocyte cytokine profiles in children with autism and gastrointestinal symptoms: mucosal immune activation and reduced counter regulatory interleukin-10. *J Clin Immunol* 2004 Nov; **24**(6): 664-673 and **f)** Critchfield JW, van Hemert S, Ash M, Mulder L, Ashwood P. The Potential Role of Probiotics in the Management of Childhood Autism Spectrum Disorders. *Gastroenterol Res Pract* 2011; **2011**: 161358 (online 26 Oct 2011) <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3205659/>.

Thus, the author's "outlandish allegations" assertion is at odds with reality and, as such, the author's first statement should simply be ignored.

While, in February of 1998, Dr. Wakefield did state, "...there is sufficient anxiety in my own mind of the safety, the long term safety of the polyvalent, that is the MMR vaccination in combination, that I think that it should be suspended in favour of the single vaccines, that is continued use of the individual measles, mumps and rubella components"<sup>13</sup>, the validity of Dr. Wakefield's concerns over the then unproven safety of the MMR combination vaccines was subsequently supported by a 2006 Cochrane Collaboration review of the studies on the MMR vaccines (see footnote "7").

Based on the preceding realities, this reviewer must conclude that the published scientific findings of "the Geiers", Mark R. Geier, MD and David A. Geier, BA (with whom this reviewer has collaborated on occasion as he does with others in areas where this reviewer has pertinent expertise, knowledge or understanding), and Dr. Andrew "Wakefield" are generally sound and well-recognized by international and American scientists that work outside the confines of the healthcare, medical, and public health establishments.

Thus, this reviewer must ignore the author's irrelevant "legacy of years of dispatches" and must consign the author's "false equivalency" and "outlandish allegations" to the dustbin reserved for such unsupported, non-science-based remarks.

Finally, since all facets of the mainstream media, outside of peer-reviewed publications, have clearly devolved into entertaining the public while shilling for their advertisers, and the mainstream media's articles are based on "sound byte" and "spin" rather than "scientific discourse" and "factual reporting", this reviewer is bemused by the author's allusion to articles published by "the London Dailies".

### **Defending Vaccines by Attacking the Other Reporters**

"For more than a decade, credulous (or lazy) reporters who were either unwilling or unable to grasp the basic scientific principles at hand regularly regurgitated the most specious anti-vaccine talking points."

Although this reviewer agrees that, *when dealing with vaccines and vaccine-use issues*, the reported news regularly regurgitates "talking points", this reviewer finds that, *like this article*, most of these accounts focus on the Establishment's propaganda when it comes to their "talking points".

"One of the more cringe-inducing examples occurred in an infamous 2007 story by CBS News's Sharyl Attkisson, who wrote, 'There is no definitive research proving a link between vaccines and autism or ADD, but there is also no definitive research ruling it out.' That statement betrays a profoundly mistaken understanding of the theory of falsifiability, which states that in order for a hypothesis to be a legitimate subject of inquiry, it has to have a single, corresponding null hypothesis--that is, it needs to be disprovable. Saying that there is not definitive research ruling out

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<sup>13</sup> <http://briandeer.com/wakefield/royal-video.htm>, last visited on 15 Jan 2012.

a link between vaccines and autism is like saying there is not definitive research ruling out a link between watching CBS News and rectal cancer: It's technically true only because it's functionally meaningless.”

Here, ignoring the author's Orwellian Doublespeak (i.e., couched in convoluted, misdirective language), this reviewer finds that, *from the viewpoint of established reproducible<sup>14</sup> science*, a prerequisite for reproducible science-based journalism, this author's assertions should simply be ignored.

*Given the lack of independently verified, reproducible results from most all of the studies upon which this pro-vaccine acolyte seems to rely*, this author has no basis for any of his rant against Sharyl Attkisson's 2007 observation.

Moreover, since 2007, animal studies in newborn developing primates and other developing newborn animals mimicking the American early-childhood vaccination schedule for Thimerosal-preserved vaccines in 1999 (or ones like it, which are still used in many countries) have clearly established a causal link between:

- a. Thimerosal-exposure timing and level and
- b. The risk of and/or the severity of neurodevelopmental delay or disorder (including the development of autism-like symptoms and, in some instances, permanent impairments) in the treated newborns but not the control group or groups used.

Since, *in spite of this author's rant here*, causal linkages between Thimerosal and “autism” have been established, this author's remarks are clearly at odds with scientific reality<sup>15</sup> – though he and most of the mainstream media writers are still parroting the Establishment's unsupported and/or scientifically unverified views to the contrary.

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<sup>14</sup> Because the original datasets, experimental design, exclusion criteria justifications have been “lost” or the original researchers or holders of the data have refused to make these available to qualified independent researchers for validation and confirmation, almost none of the published large-scale statistics-based population studies overseen and/or published by the CDC or the vaccine makers or those academics who consult or work with either of them, none of these studies have been or, for the “lost” datasets claimed by the CDC, can be independently verified and reproduced.

Therefore, all of these studies should be either: **a)** withdrawn from the journals that published them because they are inherently not reproducible, or **b)** *if the original datasets, experimental designs and details can be proven to exist and are openly shared*, clearly labeled as “non-verified” until independent scientists can review the original work and verify its validity.

As a clear example of the need for this, one need only look at the 2004 study, Ip P, Wong V, Ho M, Lee J, Wong W. Mercury exposure in children with autistic spectrum disorder. *J Child Neuro*. 2004; **19**: 431-434, in which, when the datasets were re-analyzed, a major calculation error was discovered which changed the valid findings and provided support for a “mercury-autism” causal link (see DeSoto MC and Hitlan RT. Blood Levels of Mercury Are Related to Diagnosis of Autism: A Reanalysis of an Important Data Set. *J Child Neurol* 2007; **22**: 1308-1311).

After the error was found in the review, the authors of the original article, Ip P, Wong V, Ho M, Lee J, and Wong W, agreed that this significant error had been made.

Since the original datasets have not been provided for the foreign-country studies and the US CDC's studies' original datasets are typically claimed to have been “lost” or independent access to them is blocked, and there is unequivocal e-mail evidence that the published findings are at odds with the actual data for one of the Danish studies, the findings in all of such studies must be labeled as non-reproducible and, hence, considered scientifically unreliable until and unless the findings in each such study can be independently verified and confirmed.

<sup>15</sup> This was also the case when products containing inorganic mercury (Calomel) were knowingly being used to mercury poison developing children.

Then, the causal link between Childhood Calomel exposure from teething powders and worming preparations and “Pink Disease” or “acrodynia” was denied by the medical and healthcare establishments until after the Calomel-containing products were withdrawn from the market.

As with injected-Thimerosal in vaccines, there was no proof of safety for Calomel and, like Thimerosal is currently, Calomel was touted as a “special form of mercury” that was “safe” based on the lack of proof of harm, even though, like Thimerosal, no toxicological studies had established what a truly safe level of daily exposure to Calomel might be for developing humans.

## Defending Vaccines – Whose Misinformation?

“Unfortunately, there is no restart button when it comes to public consciousness, and it will take quite a while to eradicate the effects of all of the fear and misinformation that were injected into the population. Don't take my word for this -- look at the data: One poll taken early last year found that only 52 percent of Americans knew vaccines did not cause autism. (Eighteen percent said they believed, despite the overwhelming amount of evidence to the contrary, that vaccines could cause autism; 30 percent said they weren't sure.) In October, *Pediatrics* reported that more than 10 percent of parents refuse to give their children some vaccines or adhere to "alternative" vaccine schedules that are based on little more than guesswork.”

Here, this reviewer first finds that the author's statements are Orwellian in nature (i.e., couched in convoluted, misdirective language: “Doublespeak”).

Factually, the author is simply reporting the results on one particular survey that shows how effective the mainstream propaganda has been in hiding the proven reality that injected Thimerosal (contained in Thimerosal-preserved vaccines) is a causal factor for neurodevelopmental and other medical conditions, including “autism”.

To obscure this reality in the USA, the Establishment has asserted that Thimerosal was removed from childhood vaccines when its actions have simply moved most of the Thimerosal in children's vaccines from several of the CDC-recommended vaccine types (DTaP, DT, Td, Tdap, Hib and Hep B) to one CDC-recommended vaccine type (the Thimerosal-preserved multi-dose formulations of the inactivated-flu vaccines), for which, *without proof of safety or effectiveness in children under two years of age*, the CDC began making a vaccination recommendation in 2002 that Thimerosal-preserved influenza vaccines be given to 6- to 23- month-old infants.

In addition, to obscure the increase in the *maximum* level of injected-Thimerosal exposure, the CDC has *slowly* increased the age range for its universal vaccination recommendations from a few doses during early childhood (initially, equivalent to no more than three, nominally 50- $\mu$ g doses of Thimerosal [or nominally 0.15 milligram of Thimerosal]) in 2002 when, coincidentally:

- a. The lots of the several Thimerosal-preserved, early childhood vaccine types licensed by the U.S. Food and Drug Administration (FDA) were beginning to expire because the vaccine makers had replaced them with lots of FDA-licensed “reduced Thimerosal” unit-dose vaccine formulations, and
- b. Almost all the available FDA-licensed influenza vaccines were Thimerosal-preserved formulations designed to be packaged in multi-dose vials.

By the 2009-2010 timeframe, the CDC's slowly expanding recommendations had essentially increased the number of recommended influenza-vaccine doses for a child born early in 2009 and only vaccinated as recommended with Thimerosal-preserved influenza vaccines to 22-24 doses of Thimerosal, nominally 50- $\mu$ g per dose [about 1.1 – 1.2 milligrams of Thimerosal], by the time the individual is 18 years of age.

Finally, given: **a)** a 78-year life expectancy and **b)** the CDC's 2010-2011 recommendations for annual influenza vaccination for every person starting during the time when the child is developing in the womb, *if unchanged by either the withdrawal of*

all doses of Thimerosal-preserved influenza vaccines or significant changes in the CDC's vaccination recommendations, a fully compliant individual born in early 2009 will be injected with about 82-84 doses of Thimerosal, nominally 50- $\mu$ g each [or about 4.1 – 4.2 milligrams of Thimerosal] by age 78, provided the individual lives past his or her 78<sup>th</sup> birthday and receives at least one Thimerosal-preserved flu shot every year.

To further minimize the public's realization of the preceding realities, *if pressed for information*, the Establishment reports the percentage of doses released that are Thimerosal-preserved doses<sup>16</sup> rather than the number and percent of the Thimerosal-preserved doses in the total influenza vaccine doses that were actually used to inoculate the public each year.

Further, as far as this reviewer can ascertain, the fact that the number of doses of Thimerosal-preserved flu shots available each year has increased from about 40 million doses in 2002 to about 60 million doses in 2010 has not even been reported in the mainstream media.

Instead, the mainstream media continues to:

- a. Obediently focus the public's attention on the removal of Thimerosal from certain childhood vaccines, while ignoring its presence in preserved flu shots given to pregnant women and children starting at 6 months of age,
- b. Tout the Establishment's 1999 commitment to remove Thimerosal from US vaccines "as soon as possible", while ignoring the knowing failure to meet that commitment, and
- c. Claim that Thimerosal is a "special form of mercury" that is "safe" because there is no *Establishment-accepted* "proof of harm".

In the USA, today's reality is that the individual's overall *maximum* potential life-time exposure to injected Thimerosal from Thimerosal-preserved vaccines has actually increased by more than 100% and the FDA licenses for all of the Thimerosal-preserved vaccines have not been revoked.

Thus, the claims that Thimerosal has been removed from vaccines in the USA are false or, if they include the standard "except for a few flu vaccines" disclaimer, knowingly deceptive.

To further blur scientific reality, additional vaccines types containing aluminum adjuvants have been approved, even though this is also contrary to an applicable United States' statute (see **42 U.S.C. 300aa-27(a)(2)**), which: **a)** requires that the U.S. Secretary of Health and Human Services must continually reduce the overall risk of adverse reactions to vaccines and **b)** provides direct access to the federal courts if any person thinks the Secretary has failed to comply (see **42 U.S.C. 300aa-31**).

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<sup>16</sup> Even then, the percentage of Thimerosal-preserved influenza-vaccine doses released and available for distribution has only decreased from virtually 100% of the available doses in the 2002-2003 flu season to about 51 % of the available doses in the 2010-2011 flu season.

If the current rate of decline is continued, then the 1999 "removed as soon as possible" commitment for Thimerosal-preserved flu shots will not be realized until the 2018-2019 or 2019-2020 flu season.

Since it took no more than 10 years to convert all of the other FDA-licensed vaccine types currently that are currently recommended for childhood vaccination by the CDC from their 1999 Thimerosal-preserved formulations to no-Thimerosal formulations, how can a process that, *at its present rate*, will take twice as long be consistent with the 1999 "removed as soon as possible" commitment?

Adding these additional vaccines, especially, the human papilloma virus [HPV] vaccines, has clearly increased our children's overall risk of adverse reactions as has adding additional doses of some of the other aluminum-adjuvanted vaccines to the CDC-defined recommended vaccination schedule used in the USA.

Were: **a)** all Thimerosal-preserved vaccines to be banned, recalled, and destroyed today (in January of 2012), and **b)** the vaccines and vaccine-dosing schedule rolled back to the 2000 schedule, it would take until at least 2021 until:

1. The full effects of these reductions could be realized and
2. The level of "autism", specifically, autistic disorder diagnoses, could be reliably compared to the level of similar diagnoses for those born in 2000 provided the DSM 5 criteria for "autistic disorder" remain essentially the same as they were in DSM 4.

If Thimerosal is the major factor, then, *after an immediate ban on, and recall of, all Thimerosal-preserved flu vaccines and the rollback of the overall exposure to aluminum adjuvants to the exposure level in 2000*, an unbiased 2022 report on the 2020 incidence and prevalence of autism in children 3-8 years of age should find levels that are significantly below the levels seen in 2000 and the trend should be to decreasing incidence and prevalence.

Until then, the current vaccination schedule should be frozen and a 20-year retrospective study should be conducted involving the comparisons of all aspects of the health of: **a)** a cohort of ten thousand, initially healthy, full-term babies born to fully vaccinated mothers and then fully vaccinated to **b)** a comparable matched cohort of ten thousand, initially healthy, full-term babies born to never-vaccinated mothers and then never-vaccinated by parental choice, where the initial cohorts of children were born no earlier than Jan 1, 2009.

In that study, there should be provision for an in-depth annual review of the overall health of each member of each cohort of children with:

- a. A full reporting of all findings issuing no later than 12 months after each annual review is completed for at least the first 5 years of the 20-year study and
- b. The release of the certified identify-blinded datasets for all the children to qualified independent researchers for verification of the report's published findings.

Then, there should be similar biennial reporting for the next 10 years and a final report issuing 21 years after the start of the study.

If, *after the report issues for the fifth year or sooner*, it is clear that the never vaccinated, especially those that have and survive the highly infectious endemic childhood diseases for which there is a vaccine (measles, mumps, rubella, chickenpox, pertussis, polio and rotavirus)<sup>17</sup> are significantly healthier overall than their fully vaccinated counterparts, then the vaccination programs should be revised to:

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<sup>17</sup> Diphtheria was omitted from this list because no cases of invasive diphtheria have been reported since 2005.

1. Immediately remove those vaccines that are CDC-recommended for non-contagious disease (e.g., hepatitis B);
2. Stop the use of any in-use ineffective early childhood vaccines (e.g., the influenza vaccines); and
3. Phase out (over a period of 5 years) the vaccines for the milder contagious childhood diseases (e.g., chickenpox, mumps, hepatitis A and rotavirus) adding full dietary-supplement support to the treatment protocol that is appropriate for each of the diseases for which the vaccine is withdrawn [e.g., vitamin D-3, lysine and vitamin C for chickenpox],

and the study continued to its conclusion.

If, *contrary to the results reported in independent comparative reviews of groups of vaccinated children to groups of mostly unvaccinated and/or never-vaccinated children*,<sup>18</sup> at 5 years of age, the health of both groups of initially healthy, full-term children are truly about the same in all aspects, including the incidence of autistic disorder, ADHD, allergies, asthma, gastrointestinal, and other autoimmune diseases, then, the data would indicate that the early childhood vaccination programs do not have an adverse effect on our children's health.

If, at 5 years of age, the fully vaccinated cohort were to have the same independently verified survival rates and were independently verified to be truly healthier than the never-vaccinated cohort, then, the value and short-term safety of the current initial childhood vaccination programs would finally have been verified.

Finally, whatever the obstacles to the suggested “fully vaccinated versus never vaccinated” 20-year study, this reviewer suggests that every year excuses are made for not undertaking such studies (or equivalent studies) is another year that more of the public will opt out of the current CDC vaccination program at some point as well as another year where the Establishment's inaction in this regard will increasingly undermine the public's “faith in”, and “support of”, the Establishment's vaccination and other healthcare programs.

## **Defending Vaccines — Misinformation and Alternative Vaccination Schedules Cause Outbreaks of “[V]accine-preventable diseases”?**

### **The “flourishing of vaccine preventable diseases”: Pertussis?**

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Since many of the polysaccharide vaccines (e.g., meningococcal meningitis conjugate vaccines [Sanofi's Menactra® and Novartis' MenVeo®]) and the pneumococcal conjugate [Wyeth's Prevenar 13® and Merck's Pneumovax®] are conjugated to diphtheria toxoid, it may be that these are providing some protective effect.

As long as these “conjugated” polysaccharide vaccines are being given, it may be that there may be no need to give the DTaP vaccines to young children.

Tetanus was omitted because tetanus is not a contagious disease but rather an injury-induced disease that rarely occurs in children and young adults with most cases occurring in the elderly (>65 years of age).

Since the tetanus toxoid is conjugated to the Hib polysaccharides and the vaccine is given to young children, this vaccine may serve to provide adequate protection against Tetanus in the developing child and young adult so that only a “no mercury” TT vaccine would be needed for adults and the elderly.

<sup>18</sup> See, for example: **a)** Kemp T, Pearce N, Fitzharris P, Crane J, Fergusson D, St George I, Wickens K, Beasley R. Is infant immunization a risk factor for childhood asthma or allergy? *Epidemiol*, 1997 Nov; **8**(6): 678-680; **b)** <http://www.ias.org.nz/wp-content/uploads/IAS1992study.pdf> for the results of a 1992 survey that were published in 2005, “Unvaccinated Children are healthier”; and **c)** <http://childhealthsafety.wordpress.com/2011/08/26/new-survey-shows-unvaccinated-children-vastly-healthier-far-lower-rates-of-chronic-conditions-and-autism/> in August of 2011, last visited 12 Jan 2012.

“The result has been a flourishing of vaccine-preventable diseases. A year after 10 infants died in California of pertussis (or whooping cough) infections, nationwide outbreaks continued to spread.”

Absent information about the vaccination status and pre-disease health of each of these “10 infants”, all this reviewer can only notice is that the reportable-disease history and numerous scientific studies have clearly established that the current pertussis vaccination program component, which has grown into the current initial DTaP-Tdap (diphtheria-tetanus-acellular-pertussis vaccines) protocol followed additional Tdap booster doses in lieu of the prior tetanus boosters, is apparently not effective in preventing “whooping cough” in about half of the appropriately vaccinated children and adults.

Moreover, as more and more doses of the Tdap vaccine are being recommended, this vaccination program is becoming less and less cost-effective and, *because the healthcare establishment inappropriately presumes that appropriately vaccinated children cannot get whooping cough (pertussis)*, tends to delay the start of the current “standard of care” treatment with antibiotics – which may not be the best treatment approach<sup>19</sup>.

Finally, the author fails to report that, *at best*, the pertussis vaccination programs only provide short-term protection from being infected or re-infected by *Bordetella pertussis* (*B. pertussis*) [currently, admitted to being “3 years” of protection to only some percent of those fully vaccinated according to the current CDC recommendations], but provide no protection from contracting a *B. parapertussis* infection, which is currently implicated in up to 30% of clinical “whooping cough” cases.

“While many of those were due to under-vaccinated adults who didn’t realize they were due for a pertussis booster, there were countless more instances where the disease was spread among deliberately unvaccinated kids. (The best (or worst) example of this occurred at the Blue Mountain School, a small private school about 40 miles southwest of Roanoke, Virginia. It was shut down for a week after roughly half of its students were infected with pertussis; according to local health officials, most of the parents of the infected students had chosen not to have them vaccinated.)”

Such incomplete reports conceal the reality that some, up to just under half, of the infected students may have been partially or fully vaccinated against pertussis.

Moreover, the author conveniently failed to report: **a)** the vaccination status of the “*roughly half of its students*” that were not infected with pertussis or **b)** the total number of children and adults exposed in this particular outbreak.

Turning to the local source (<http://www.roanoke.com/news/roanoke/wb/282419>),

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<sup>19</sup> The pre-antibiotic approach of treating those with whooping cough with a supplemental vitamin C, using 250-375 milligrams (mg) of vitamin C per kilogram of patient weight daily [1] for about 4 months to ensure full recovery) needs to be reconsidered and added to a “standard of care” that include added probiotics and vitamin D-3 [2].

[1] The patient’s gastrointestinal state and the effectiveness and sound of the coughing are used to adjust the total dose and the dosing. Increase the total dose until the patient’s coughs up the fluids that collect at the bottom of the lungs and cause the “whooping” form of coughing. In addition, the dose should be spread out as the dosing level increases to the point that the patient’s intestines are noticeably gassy and the feces are semisolid, but the patient does not have diarrhea.

[2] Initially, 50,000 IU of vitamin D-3 (D-3) should be given for 10 days followed by sufficient D-3 daily to maintain the body’s 25-hydroxy-D-3 level between 65 and 100 ng/mL (162 and 250 nm/L/) to permit the body to effectively make its own infectious-bacterium-specific antibiotics.

“At least 30 people associated with Blue Mountain School have been diagnosed with the highly contagious disease, also called pertussis, including 23 of its 45 students, said Shelly Emmett, the alternative school's director.

The Virginia Department of Health is working with the school to contain the outbreak. While the majority of the cases involve children, a few adult cases have been identified, said Dr. Molly O'Dell, director of the New River Health District”;

“The outbreak was caused by not properly vaccinating people against the disease, O'Dell said, noting that a subset of the population does not follow vaccination recommendations.”

and

“Children in Floyd who have the illness were not vaccinated, O'Dell said. With the adults, it could be that they were never revaccinated with a booster shot and their immunity to the disease has waned.”

First, the “local” narrative asserts that 30 people associated with the school had pertussis; 7 [13.46% of the recounted persons] were adults; 23 [44.23% of the recounted persons] of these were children apparently infected (indicating that the number of students with confirmed pertussis may have been less); and 22 [42.31%] children were reported as not being diagnosed with whooping cough (i.e., they had no apparent clinical symptoms of having contracted the disease).

Second, the vaccination status of the 22 children who had no evidence of having whooping cough was not reported nor were the number of staff without pertussis and their vaccination status reported.

Third, factually, *B. pertussis* and *B. parapertussis* both cause whooping cough and vaccination only provides limited-duration protection to most, but not all, of those fully vaccinated<sup>20</sup> against *B. pertussis* toxins, not the disease-causing organism itself.

Further the DTaP and Tdap vaccines provide no protection against infections caused by *B. parapertussis* and the toxins that an invasive infection by it releases<sup>21</sup>, or other lung infections that cause coughing.

Therefore, absent a valid, confirmed *B. pertussis*-specific clinical test, the cases with a clinical *B. pertussis* infection may have been less than the number reported.

Fourth, because the vaccinated persons can be carriers,<sup>22</sup> all that is certain is that the *B. Pertussis* outbreak was caused by some person's or persons' actively shedding *B. pertussis*, typically by coughing, inside of the school or elsewhere in close proximity to the school's students and staff where it is clearly possible that the source included a fully/recently vaccinated *B. pertussis* carrier.

Fifth, as the author's subsequent statement, “[u]nlike whooping cough, measles infections were spread almost exclusively by unvaccinated children and adolescents”, admits, pertussis-vaccinated children and adults of all ages, including recently vaccinated individuals, can spread *B. pertussis*.

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<sup>20</sup> Zhang, L; Prietsch, SO, Axelsson, I, Halperin, SA (2011-01-19). "Acellular vaccines for preventing whooping cough in children." *Cochrane database of systematic reviews (Online)* (1): CD001478. doi:10.1002/14651858.CD001478.pub4

<sup>21</sup> [http://bioweb.uwlax.edu/bio203/s2007/wolf\\_bri2/](http://bioweb.uwlax.edu/bio203/s2007/wolf_bri2/).

<sup>22</sup> Field LH, Parker CD. Pertussis Outbreak in Austin and Travis County, Texas, 1975. *J Clin Microbiol*, 1977 Aug; 6(2): 154-160.

## Measles Vaccination – “Preventable” Disease and “Adverse Events”

“Even more alarming were the measles outbreaks that cropped up in virtually every region of the country, from the Northeast to the Pacific Northwest and from the Gulf Coast to Southern California. Unlike whooping cough, measles infections were spread almost exclusively by unvaccinated children and adolescents. The largest outbreak was in Minnesota, where anti-vaccine activists had targeted a community of Somali immigrants that appeared to be experiencing higher-than-expected rates of autism. That outbreak began when a deliberately unvaccinated child returned from Africa infected with the disease; by the time it had run its course, more than a dozen children had been hospitalized. As of December 8, the U.S. had recorded 221 laboratory-confirmed cases of measles in 2011 -- about four times more than usual and the most in any year since 1996.”

Again, rather than being a “*reliable, responsible science*” journalist, the writer uses fear mongering and puffery to exaggerate the situation.

Moreover, based on the mid-2011 *Morbidity and Mortality Weekly Report (MMWR)* article in which CDC researchers reported that there were 118 confirmed measles cases in the period between January 1<sup>st</sup> and May 20<sup>th</sup> of 2011<sup>23</sup>,

*“Nine outbreaks accounted for 58 (49%) of the 118 cases. The median outbreak size was four cases (range: 3--21). In six outbreaks, the index case acquired measles abroad; the source of the other three outbreaks could not be determined.”*<sup>24</sup>

## Measles Vaccination – “Adverse Events”

In addition, unlike this reviewer, the author does not mention, much less address, the adverse reactions annually attributable to the MMR vaccination program.

Before reviewing the post-vaccination-related adverse reports available in the US Vaccine Adverse Event Reporting System (VAERS) jointly maintained by the US CDC and the US FDA, this reviewer first notes that, for serious adverse reports, like death, permanent disability, and hospitalization, in 2003, then FDA-Commissioner David Kessler reviewed the issue and found “only about one percent of serious events ... are reported”.<sup>25</sup>

Thus, this reviewer will focus on the VAERS-reported serious adverse events following the administration of Merck’s MMR II® vaccine or ProQuad® vaccine in the period from 1 January 2011 through 14 November 2011 (probably containing about 93% of the reports that will eventually be reported for 2011 in VAERS), which this reviewer retrieved from the VAERS database in early January of 2011.

The covered serious adverse report search categories reviewed are: “Death”, “Life Threatening”, “Permanent Disability”, “Hospitalization” and “Emergency Room” (see this reviewer’s **Table 1**).

This reviewer used then FDA-Commissioner Kessler’s “1%” reporting level as the basis for projecting the total number of serious adverse-event instances from the posted applicable VAERS reports for 2011 available for review on 6 January 2012.

<sup>23</sup> <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6020a7.htm>, last visited 6 January 2012.

<sup>24</sup> These findings and the other cited statements from this publication seem to indicate rather than being caused by a single index patient, the reported imported-source outbreaks apparently involved more than one imported source case.

<sup>25</sup> Kessler, DA, the Working Group, Natanblut S, Kennedy D, Lazar E, Rhoenstein P, et al. Introducing MEDWatch: a new approach to reporting medication and device adverse effects and product problems. *JAMA* 1993; **269**(21): 2765.

Moreover, since there is no way to unequivocally determine which administered vaccine or vaccine component is causal when multiple vaccines are administered at the

**Table 1**  
**Adverse events reported where Location is U.S., Territories, or Unknown; the Vaccine contains a Measles Component; and the Individual’s Vaccination Date Ranges from ‘2011-01-01’ through ‘2011-11-14’**

Event Category	Original Count <sup>A</sup>	Adjusted Count <sup>B</sup>	Projected Incidence <sup>C</sup>	Unaudited Individual-Category Count <sup>D</sup>
<b>Death</b>	6	<b>6</b>	<b>700</b>	6
<b>Life Threatening</b>	27	<b>26</b>	<b>3,000</b>	27
<b>Permanent Disability</b>	3	<b>3</b>	<b>300</b>	5
<b>Hospitalized</b>	82	<b>82</b>	<b>9,400</b>	98
<b>Emergency Room</b>	731	<b>731</b>	<b>83,900</b>	821

<sup>A</sup> The “Original Count” values are the values returned by a combined search.

<sup>B</sup> The “Adjusted Count” values are the “Original Count” values adjusted to remove any instance in which more than 1 vaccine was administered the same day and the adverse event was unequivocally not related to a measles-virus-containing vaccine.

<sup>C</sup> “Projected Incidence” values are  $\{\text{the integer of } [100 \text{ times the “Adjusted Count” values } + 50] / 100\} \text{ times } [365 \text{ days Year} / 318 \text{ days Elapsed}] \times 100$  (see reviewer’s footnote 25) or the Integer of  $\{[(\text{“Adjusted Count” times } 114.8) + 50] / 100\} \text{ times } 100$ .

<sup>D</sup> Individual Category Count” values are the “Count” values returned by a separate VAERS search for each category.

same time, all of the non-foreign adverse events identified by the MedAlert System<sup>26</sup> in which a measles-containing vaccine was administered will be attributed to said vaccines unless there is information provided in the adverse report clearly establishes that another vaccine given at the same time caused the adverse event reported.

Additionally, to eliminate a single VAERS report from being multiply counted, the adjusted results from a combined adverse-event-type search<sup>27</sup> were used to estimate the “Projected Incidence” for the serious-adverse-event categories based on VAERS, a voluntary adverse-event repository, presumed to receive adverse-event reports for 1 % or less of the actual serious adverse events that occurred in 2011 and were available in VAERS for searching on 9 January 2012.

Because a combined-event search does not count any report to VAERS more than once, the reports from results of a combined-event search were used for the event-occurrence estimates<sup>28</sup> even though this approach underestimated the reports for all but the most serious adverse event categories<sup>29</sup>.

The author of the article being reviewed reports that there were about 221 cases of measles and that “*by the time it had run its course, more than a dozen children had*

<sup>26</sup> Med alert portal, see <http://www.medalerts.org/>, last visited 21 January 2011.

<sup>27</sup> The internal rules for this type of search perform a hierarchical search where the records for the most-serious outcome, “death”, are identified first and then removed from the records available for the search, followed by another search of the remaining records for the next-most-serious outcome, “life threatening”, and those records are removed and the remainder is searched for the third-most-serious outcome, “permanent disability”, and so on until all of the records have been identified for all of the types of events in the search group have been identified.

For this general discussion, the use of the count from the multiple-category search ensure that no record was counted more than once.

<sup>28</sup> This reviewer recognizes that this approach has an estimation error of at least  $\pm 100$  reports.

<sup>29</sup> Based in a comparison of the reports from the combined search to individual “Event Category” searches (see this reviewer’s “Table 1”), the underestimation bias ranged from “zero” percent for the “Death” and “Life Threatening” categories to 40% for the “Permanent Disability” category, 16 % for the “Hospitalized” category and 11% for the “Emergency Room” category.

been hospitalized” in the Minneapolis, Minnesota outbreak in which a large number of children were infected.

Yet, there were no reports of even one measles-infection-related death.

Additionally, while admittedly there may have been more measles cases than “expected” by our public health officials, the author hypes the number of confirmed measles cases by stating, “about four times more than usual and the most in any year since 1996”.

Yet, the reported “221” US measles cases in probably about 75% of 2011 pales in comparison to the projected measles-vaccination-related deaths and other serious adverse events in probably about 93% of 2011.

By way of comparison, in 2011 though November 14, 2011<sup>30</sup>, the adverse events associated with both of the current FDA-licensed, measles-virus containing vaccines (specifically, Merck’s MMR II [a MMR vaccine] and ProQuad [a measles-mumps-rubella-varicella vaccine]) indicate that these vaccines probably were a causal factor in the deaths of about “700” individuals, of which about half were vaccinated American children who were less than 3 years of age.

Further, in less than a full year, shortly after being given a measles-containing vaccine: **a)** about “2,600” are projected to have a life-threatening adverse reaction; **b)** about “300” are projected to be permanently disabled; **c)** more than “9,400” are projected to be hospitalized and **d)** more than “83,900” are projected to visit an “Emergency Room”.

Of course, no one knows what the outcomes for measles cases would have been if no healthy, well-nourished child under 6 years of age were vaccinated nor, because the Establishment has refused to study them, what, if any, are the long-term adverse health risks for those individuals who are vaccinated with either the Merck MMR II<sup>31</sup> or the ProQuad<sup>32</sup> vaccine.

<sup>30</sup> A search of the available 2011 records in VAERS using the category “Death” produced the following results:

Age Range	Actual ages	Days Post-vaccination	Count	Percent
< 3 Years	1.1, 1.3 & 2.0	1, 10 & 7	3	50.00%
3-6 Years	3.0 & 5.0	7 & 0	2	33.33%
44-65 Years	48	2	1	16.67%
<b>TOTAL</b>	---	---	6	100.00%

<sup>31</sup> According to Merck’s package insert for MMR II, each dose injects not less than 1,000 TCID<sub>50</sub> (tissue culture infectious doses) Enders' attenuated Edmonston strain of live measles virus derived from chicken embryo cell culture; not less than 12,500 TCID<sub>50</sub> of the Jeryl Lynn (B level) strain of mumps virus propagated in chick embryo cell culture; 1,000 TCID<sub>50</sub> of the Wistar RA 27/3 strain of live attenuated rubella virus propagated in WI-38 human diploid lung fibroblasts; nominally, 14.5 mg of sorbitol, sufficient sodium phosphate to adjust the pH appropriately, 1.9 mg of sucrose, sufficient sodium chloride to adjust the ionic strength appropriately, 14.5 mg of hydrolyzed gelatin, ≤0.3 mg of recombinant human albumin, <1 ppm of fetal bovine serum, other buffer and media ingredients, and approximately 25 mcg of neomycin.

In addition, the vaccine probably contains undisclosed, low, variable levels of other adventitious biological contaminants (e.g., avian, bovine and human viruses and/or biologically active fragments from the cells and cell components in the growth media used).

<sup>32</sup> According to Merck’s package insert for ProQuad, “each dose injects not less than 3.00 log<sub>10</sub> [1,000] TCID<sub>50</sub> of measles virus; 4.30 log<sub>10</sub> [19,953] TCID<sub>50</sub> of mumps virus; 3.00 log<sub>10</sub> [1,000] TCID<sub>50</sub> of rubella virus; and a minimum of 3.99 log<sub>10</sub> [9,772] PFU of Oka/Merck varicella virus.

Each 0.5-mL dose of the vaccine nominally contains 20 mg of sucrose, 11 mg of hydrolyzed gelatin, 2.5 mg of urea; 2.3 mg of sodium chloride, 16 mg of sorbitol, 0.38 mg of monosodium L-glutamate, 0.14 mg of sodium phosphate, 0.25 mg of human albumin, 0.13 mg of sodium bicarbonate, 94 mcg of potassium

Compared to no deaths from the measles disease and less than 100 measles-virus-related hospitalizations in 300-million-plus Americans of all ages, the not-even-mentioned, estimated serious short-term adverse health outcomes associated with the measles-containing vaccines (see **Table 1**, **Table 1**'s footnote "C", and the percentage of deaths by age group in footnote "30") are projected to include:

- a. about 350 deaths in children under 3 years of age [half of the reported deaths];
- b. about 233 deaths in children 3 to 6 years of age [one-third of reported deaths];
- c. about 700 deaths overall;
- d. about 300 to 573 permanent disabilities;
- e. about 3,000 life-threatening vaccine reactions;
- f. about 9,400 to 11,300 vaccine-related hospitalizations; and
- g. about 83,900 to 94,300 Emergency Room visits.

**Table 2**  
**Age-range Breakout for Measles-vaccine-related**  
**Adverse Events Reported in VAERS from**  
**'2011-01-01' through '2011-11-14'**

Age Range	Report Count	Percentage of the Total
< 3 Years	730	36.58%
3-6 Years	907 <sup>A</sup>	45.45%
6-9 Years	41	2.05%
9-12 Years	26	1.30%
12-17 Years	34	1.70%
17-44 Years	149	7.46%
44-65 Years	82	4.11%
65-75 Years	8	0.40%
75+ Years	1	0.05%
<b>Subtotal where patient's age is reported</b>	<b>1978</b>	<b>-----</b>
<b>Unknown</b>	<b>19</b>	<b>0.95%</b>
<b>TOTAL</b>	<b>1997</b>	<b>100.00%</b>

<sup>A</sup> The initial search "count" was originally 908, but, upon review, of the actual VAERS reports, one (1) report was unequivocally not caused by the measles-virus-containing vaccine given but rather by another vaccine given at about the same time that the measles-virus containing vaccine was administered.

phosphate, 58 mcg of potassium chloride; residual components of MRC-5 cells including DNA and protein; 5 mcg of neomycin, 0.5 mcg of bovine serum albumin, and other buffer and media ingredients.

In addition, the vaccine probably contains undisclosed, low, variable levels of other adventitious biological contaminants (e.g., avian, bovine and human viruses and/or biologically active fragments from the cells and cell components in the growth media used).” [Note: Contrary to the Establishment’s general position that vaccine components do not interfere with each other, ProQuad nominally contains about 1.6 times as many mumps TCID<sub>50</sub> units as MMR II as well as more than 7 times as many PFU of Oka/Merck varicella virus, as the varicella-only vaccine, Merck’s Varivax®, indicating significant immunity-development interference between the herpes varicella zoster virus particles and the measles, mumps and rubella components in the Merck ProQuad vaccine as well as some mumps interference that required Merck to also increase the minimum TCID<sub>50</sub> of mumps virus by 60 percent in ProQuad. Further pre-licensure clinical studies had shown a 2.2-fold increased incidence of fever and rash over the concomitant administration of MMR II and Varivax in different locations (see <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5003a1.htm>). Given these findings the Secretary of HHS and the subordinate, the Commissioner of the FDA should have refused to license ProQuad because licensing it clearly does not decrease the risk of adverse reactions as 42 U.S.C. 300aa-27(a)(2) clearly requires. Further, in-use experience with ProQuad as compared to separate concomitant administration of Merck’s MMR II and Varivax found that the risk of febrile seizures in young children was also about twice the risk for MMR II and Varivax concomitantly given in different limbs or, as the MMWR article stated, “The relative risk (RR) for febrile seizures 5–12 days after vaccination was 2.2 (CI = 1.0–4.7; p<0.05) among children who received the first dose of MMRV vaccine (rate: 7.0 per 10,000 vaccinations) compared with children who received the first dose of MMR vaccine and varicella vaccine administered at the same visit (rate: 3.2 per 10,000 vaccinations).”.]

Each of these categories seem to be a factor of 10 to 100 or more higher levels of harm than the reported levels of harm from about 221 cases of measles in 2011.

In addition, for children under 6 years of age, the reported distribution of VAERS measles-vaccine-related reports from 1 January through 14 November 2011 was about:

1. 82 % of the all adverse-event reports (see Table 2)
2. 70% of the life threatening events,
3. 40% of permanent disabilities,
4. 92 % of the hospitalizations, and
5. 84% of the 'Emergency Room' visits.

Finally, Mnookin also ignores the apparently increasing percentage of measles cases in vaccinated individuals, including in those who have received the recommended two doses of one of the current FDA-licensed measles-containing vaccines.

### **Probable Measles Deaths in the Absence of a Measles Vaccine Versus Projected Deaths from a 2-Dose MMR Vaccination Program**

“In 1955 (8 years before the measles vaccine) the death rate was .03/100,000. In the 1970's (post vaccine) the death rate was still .03/100,000.”<sup>33</sup>

Using the preceding 1955/1970's death rates and a population of about 312 million Americans, if either: **a) no** measles vaccines were given or **b) a** measles vaccine were only given to a few who demanded that one be given, then: **i)** the annual number of measles-associated deaths would probably be less than 95 individuals or **ii)** less than 13.8 % of the reviewer-estimated “700” “measles”-vaccine-related deaths in 2011 in the USA from today's “measles” vaccination program that recommends using the current FDA-approved MMR vaccines.

Were the author truly passionate about “*reliable, responsible science journalism*”, as he claims to be, then, *at a minimum*, the author would have mentioned that the current FDA-licensed and CDC-recommended measles-containing MMR vaccines present real risks, including death, to some who are vaccinated with these measles-containing vaccines.

Had the author been an ethical journalist, in addition to pointing out today's risks from the current “two dose” mass MMR vaccination program, he would have presented the facts that show the current “two dose” MMR-vaccination recommendations may cause more vaccination-related deaths each year than the annual measles deaths from not vaccinating against measles using this MMR vaccination program would have caused.

### **The Author's Views on “Science Journalism”**

“A few months ago, one of my students in MIT's Graduate Program in Science Writing came to my office to discuss what was becoming an overwhelming anxiety: She was worried, she said, that she

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<sup>33</sup> <http://www.curezone.com/forums/fm.asp?i=745370#i>, an on-line 2006 article titled, “Re: Baby Immunizations”, that discusses vaccination programs; last visited on 16 January 2012.

was embarking on her career at the precise moment when the opportunities for science writers were at an all-time low. I certainly understand her concern: The seemingly never-ending contraction going on in the media industry has resulted in a shedding of specialists in every journalistic medium. That does not, however, mean that the public's hunger for information about science, medicine, and technology is shrinking; indeed, as our continuing struggle against vaccine-preventable diseases demonstrates, the need for reliable, accurate information is arguably greater than ever."

Here the author veers from his vaccine-centric rant to present his views on the current state of journalism.

In general, this reviewer agrees with the statements made by the author in the preceding passage.

However, this reviewer notes that this "dumbing down" extends far beyond the mainstream media to the very industries that putatively "rely" on science and science-based writing, where positions that once required a field-appropriate doctoral degree or more are now advertised for those with a masters degree and a few years of applicable experience or a bachelor's degree with several years of experience as well as an established track record of being a "team player" (where both science and ethics are expected to be subordinate to the employee's supporting the goals of the "team" and the "organization").

This is the situation because, *rather than engaging in science-based research*, these industries have become marketers, where scientific findings are often the enemy to increased market share and immediate profit, and, *when they need to*, today's major players buy up new breakthroughs and, *depending on the potential profit*, either suppress or develop these purchased breakthroughs rather than develop such breakthroughs themselves.

In the field of medicine, given the knowing marketing of potentially lethal now-withdrawn drugs, like Merck's Vioxx® and Wyeth's RotaShield® rotavirus vaccine, the need for reliable, accurate information about vaccines has been and is being drowned in a growing river of articles, papers, and books published by individuals, like this author, who are shills for the Establishment.

This is the situation because, *as this author apparently knows and has bought into*, that currently is where the money and the fame reside.

"Those realities have created an enormous amount of opportunity for budding science writers, blogging networks, and non-traditional newsgathering operations -- but with those opportunities come responsibility. The fact that a specific story is controversial (or that it is promoted by a particularly outspoken celebrity) does not mean it deserves the oxygen it needs to survive."

Again, this author veers from the path of responsible, science-based journalism to *not-so-subtly* attacking the messengers and the message rather than, as "*reliable, responsible science journalism*" requires, reporting the unbiased science that overcomes such impediments as this reviewer strives to do.

## **Defending Vaccines — Fear mongering "Using" a Major Measles Outbreak in the Nation of France**

### **The 2011 Measles Outbreak in France – "Embellished" Reporting**

"Make no mistake: The cost of misinformation is great indeed. In a nation of more than 300 million,

a couple of hundred of measles infections might not seem like a lot, but we need only look across the Atlantic to see how these figures can explode in an incredibly short amount of time. In 2006 and 2007, France had an average of 40 measles cases per year. In 2011, the country recorded more than 15,000 cases, including more than 650 cases of severe measles pneumonia, 16 cases of encephalitis and six deaths. The WHO said 90% of those cases were in ‘adolescents and adults who had not been vaccinated or for whom vaccination history was not reported.’”

Here, the author reports that the WHO [World Health Organization] is implicitly admitting that, instead of occurring in young children, 90% of these serious adverse events occurred in adolescents and adults though they accounted for less than 70% of the cases<sup>34</sup> and some of these *may* have been vaccinated.

However, though this reviewer will begin with a review of the French measles vaccination program and reported measles cases in France, he notes that France and the USA have measles vaccination programs that are significantly different in several important aspects (see **Table 3**).

Since the 2011 measles outbreak in France is the largest measles outbreak in 2011 in a highly vaccinated population residing a developed country, this reviewer understands “why” this author wants to talk about this still-unfolding measles outbreak.

**Table 3 Some Information on Measles Vaccination Programs <sup>A,B</sup>**

Key Program Aspects	Program in France	Program in the USA <sup>B</sup>
<b>Vaccine 1<sup>st</sup> Licensed</b> <b>Current MMR Licensed</b>	1966: Measles vaccine 1983: MMR vaccine	1963: Measles 1971: Merck’s M-M-R®, that morphed into today’s Merck MMR II®
<b>Mass Implementation</b>	1 <sup>st</sup> Dose in 1983 2 <sup>nd</sup> dose in 1993: 10 yrs after 1 <sup>st</sup> dose	1 <sup>st</sup> dose in 1967 2 <sup>nd</sup> dose in 1989: 22 yrs after 1 <sup>st</sup> dose
<b>Current Coverage<sup>1</sup></b>	1 <sup>st</sup> dose: ≥ 84% at 2 yrs; ≥ 93% at 6 yrs 2 <sup>nd</sup> dose: ≥ 44% by 6 yrs; ≥ 74% by 11 yrs	1 <sup>st</sup> dose:            ≥ 92 % at 19-35 mnths  1 <sup>st</sup> & 2 <sup>nd</sup> dose ≥ 92.4 % by 5-6 yrs [where 92.4% was least level in the reports from 2003/4 through 2009-10 school years – other years > 94.8%]
<b>Timing<sup>2</sup></b>	1 <sup>st</sup> dose: 12 months to ... 2 <sup>nd</sup> dose: 24 months to ...	1 <sup>st</sup> dose: 12 – 15 months 2 <sup>nd</sup> dose: 4 – 6 yrs; min. 4 wks after 1 <sup>st</sup>
<sup>1</sup> Since “5%” of the French are unalterably opposed to vaccination, the upper limit on measles coverage in France would be “95%”. In contrast, in the USA as a whole, about “1%” of Americans probably have a recognized exemption from vaccination making the upper limit on measles coverage “99%” in the USA. <sup>2</sup> Since there are no mandates in France for vaccination as a prerequisite for school attendance, the actual date on which a child is vaccinated even though all vaccines for children are provided without cost to the parent.		

<sup>A</sup> <http://www.measlesinitiative.org/mi-files/Tools/Presentations/Annual%20Measles%20Partners%20Meeting%202010/Situation%20of%20Measles%20in%20France.ppt>

<sup>B</sup> From <http://www.immunize.org/timeline/>, <http://www.cdc.gov/media/transcripts/2008/to80808.htm> for the CDC’s first-dose measles vaccination coverage estimate; <http://www2a.cdc.gov/nip/schoolsurv/nationalAvg5Year.asp> for the combined “1<sup>st</sup> & 2<sup>nd</sup> dose” measles vaccination coverage estimate for the 2003-4 through 2007-8 school years; <http://www2a.cdc.gov/nip/schoolsurv/nationalAvg.asp?SY=SY8q> for the CDC’s 2008-9-school-year MMR vaccination coverage estimate; and <http://www2a.cdc.gov/nip/schoolsurv/nationalAvg.asp?SY=SY10> for the 2009-10-school-year measles vaccination coverage estimate. For more results see <http://www2a.cdc.gov/nip/schoolsurv/nationalAvg.asp>. All links last visited on 18 January 2011.

Moreover, *if “reliable, responsible science journalism”* is truly one of this author’s lifelong passions as his assertion,

*“-- there have been new developments in the story. Their coverage highlights an enduring passion of mine: The need for reliable, responsible science journalism”*,

seems to indicate, then, the author’s statements concerning the outbreak in France should, *at a minimum*, be both “reliable” (i.e., accurately reflect the statements in the

source he embedded in the live links used) and “responsible” (i.e., not distort the situation by juxtaposing facts in a manner that is misleading).

Yet, after this reviewer read this passage and then checked what the author wrote with both the statements in the linked article and other reliable sources, this reviewer found that the author’s statements were neither reliable nor responsible when the author wrote,

*“In a nation of more than 300 million, a couple of hundred of measles infections might not seem like a lot, but we need only look across the Atlantic to see how these figures can explode in an incredibly short amount of time. In 2006 and 2007, France had an average of 40 measles cases per year. In 2011, the country recorded more than 15,000 cases, including more than 650 cases of severe measles pneumonia, 16 cases of encephalitis and six deaths. The WHO said 90% of those cases were in ‘adolescents and adults who had not been vaccinated or for whom vaccination history was not reported.’”*

First, the author’s,

*“... these figures can explode in an incredibly short amount of time”*,

is an obvious attempt to distort “4” years of elapsed time (about 5-6% of the lifetime of the typical American or Frenchman) by misrepresenting it as “an incredibly short amount of time”.

In addition, after stating, “...these figures can explode in an incredibly short amount of time”, the author distorts the reader’s number perception by juxtaposing the numbers “40” and “15000” (emphasis added),

*“...40 measles cases per year. In 2011, the country recorded more than 15,000 cases, ...”*

To further distort reality, the author provides no information about the number of measles cases in the intervening years between 2007 and 2011 (i.e., 2008, 2009, and 2010) or information about their monthly distribution for the intervening years.

From the links in this review’s footnotes “35” and “37”, it is clear that the increases (see **Table 4**) appear to be part of an increasing trend.

**Table 4 Measles Cases and Annualized Rate of Change – France 2006 – 2011**

Year	2006	2007	2008 <sup>A</sup>	2009 <sup>A</sup>	2010	2011 <sup>B</sup>
Measles Cases	40	44	~ 511	~ 1,567	5,019	“16,913”
[Cases normalized to 2006]	“1.00”	1.1 <sub>0</sub>	~ 12.8	~39.2	125.5	“422.8”
<sup>A</sup> Cases were estimated from measurements made in a measles cases figure on the right side of Slide 6 of 18 from <a href="http://www.measlesinitiative.org/mi-files/Tools/Presentations/Annual%20Measles%20Partners%20Meeting%202010/Situation%20of%20Measles%20in%20France.ppt">http://www.measlesinitiative.org/mi-files/Tools/Presentations/Annual%20Measles%20Partners%20Meeting%202010/Situation%20of%20Measles%20in%20France.ppt</a> <sup>B</sup> Cases for the nation of France were estimated using 63.44 million and the projected annual incidence value for 2011 for France found at <a href="http://www.who.int/immunization_monitoring/diseases/measlesreportedcasesbycountry.pdf">http://www.who.int/immunization_monitoring/diseases/measlesreportedcasesbycountry.pdf</a>						

Furthermore, as **Table 5** on the next page shows, this reviewer found:

1. An apparent distortion that in the author’s rush to juxtapose certain numbers, *ironically*, understated the measles cases for January through November 2011,
  2. A factual error in the average number of measles cases in 2006 and 2007, and
  3. A fabricated statement in the preceding passage —
- errors that are not consistent with reliable, responsible journalism.

**The 2011 Measles Outbreak in France – Science-based Journalism?**

With respect to the outbreaks in France, an important fact about French measles cases in the WHO article that the author cited is that, in 2011, “most people infected (70%) are more than 10 years of age”.<sup>34</sup>

**Table 5 Comparison of Author’s Information to This Reviewer’s Referenced Findings**

Author’s assertion & source	Apparent Facts	Reviewer’s Source(s)
<p>“As of December 8, the U.S. had recorded 221 laboratory-confirmed cases of measles in 2011 -- <u>about four times more than usual and the most in any year since 1996</u>” – <u>where</u> the author cites <u>no</u> reference for the number of laboratory-confirmed measles cases and a May 25, 2011 Huffington Post article for the “about four times ...” assertion – <a href="http://www.huffingtonpost.com/2011/05/25/us-measles-outbreak_n_866846.html">http://www.huffingtonpost.com/2011/05/25/us-measles-outbreak_n_866846.html</a></p>	<p>For example, speaking of the USA, one of the references the author links to later in the article states (emphasis added), “So far, in 2011, there have been more cases than any other year since 1996 (508 cases). It is only September, and with at least 223 cases, we have already passed the recent record set in 2008 (140 cases)” while the author writes, “As of December 8, the U.S. had recorded 221 laboratory-confirmed cases of measles in 2011” – a number for December that is less than the cited article’s “223 cases” for some time in “September”?</p> <p>Obviously, the author’s number of laboratory-confirmed measles cases is the number for some time earlier in 2011. Thus, the author’s “221” number does <u>not</u> appear to be an accurate statement of the number of laboratory-confirmed measles cases in the USA through the end of November 2011 as the use of the phrase, “As of December 8, ...” implies.</p>	<p><a href="http://pediatrics.about.com/od/measles/a/measles-outbreak.htm">http://pediatrics.about.com/od/measles/a/measles-outbreak.htm</a>, last visited 12 January 2012</p>
<p>“In 2006 and 2007, France had an average of 40 measles cases per year” – no link was provided to any source.</p>	<p>“2006- 2007: 40 and 44 cases reported respectively (InVS)” – <b>thus, the actual average is 42</b> and <u>not</u> the author’s stated, “40”!</p> <p>Again, it is clear that the author has ether a “reliability” issue or he <u>cannot</u> be relied upon to accurately compute the average of “40 and 44”.</p>	<p><a href="http://www.measlesinitiative.org/mi-files/Tools/Presentations/Annual%20Measles%20Partners%20Meeting%202010/Situation%20of%20Measles%20in%20France.ppt">http://www.measlesinitiative.org/mi-files/Tools/Presentations/Annual%20Measles%20Partners%20Meeting%202010/Situation%20of%20Measles%20in%20France.ppt</a> – Slide 4 of 18</p>
<p>In the context of supposedly discussing France, the author wrote, “The WHO said 90% of those cases were in ‘<u>adolescents and adults who had not been vaccinated or for whom vaccination history was not reported.</u>’” – embeded link was to <a href="http://www.euro.who.int/en/what-we-publish/information-for-the-media/sections/latest-press-releases/european-countries-must-take-action-now-to-prevent-continued-measles-outbreaks-in-2012">http://www.euro.who.int/en/what-we-publish/information-for-the-media/sections/latest-press-releases/european-countries-must-take-action-now-to-prevent-continued-measles-outbreaks-in-2012</a></p>	<p>But, when this reviewer read the cited article, he found that the sentence in question had been materially altered from the original text (emphasis added and, in braces { }, text added),</p> <p>“... {The WHO said } <del>The majority of European cases (90% of those cases) were (in) amongst adolescents and adults who had not been vaccinated or for whom vaccination history was not reported.</del>”</p> <p>Factually, the WHO’s statement was actually addressing “European cases” – <u>not</u> French cases.</p> <p>Thus, the author’s statement is an obvious fabrication.</p> <p>In addition, the author does <u>not</u> address important information in the reference he used, including, for example, (emphasis added),</p> <p>“France has taken a strong step forward in responding to the outbreak. ... Other specific actions include a recommendation ... <b>as most people infected (70%) are more than ten years of age.</b> It also recommends that <b>children in daycare settings be immunized at 9 months (rather than the usual 12 months) followed by a second dose before age two years.</b>”</p>	<p><a href="http://www.euro.who.int/en/what-we-publish/information-for-the-media/sections/latest-press-releases/european-countries-must-take-action-now-to-prevent-continued-measles-outbreaks-in-2012">http://www.euro.who.int/en/what-we-publish/information-for-the-media/sections/latest-press-releases/european-countries-must-take-action-now-to-prevent-continued-measles-outbreaks-in-2012</a>, last visited 12 January 2012</p>

This is the case because, the PowerPoint presentation this reviewer cited reported that, from 1983 through 2002, the percentage of measles cases in the individuals older than 10 years of age was less than 0.65% of the annual confirmed measles cases in France, indicating that more than 99.3% of the measles cases occurred in children who

<sup>34</sup> <http://www.euro.who.int/en/what-we-publish/information-for-the-media/sections/latest-press-releases/european-countries-must-take-action-now-to-prevent-continued-measles-outbreaks-in-2012>, last visited 12 January 2012.

were younger than 10 years of age children for a long period of time.<sup>35</sup>

Yet, in 2011, “30%” of the WHO reported measles cases occurred in the demographic that was > 10 years of age.<sup>34</sup>

From the reviewer-cited PowerPoint presentation<sup>35</sup>, the measles-cases figure for the period from “2006” — “May of 2010” (reproduced as **Figure 1**) indicate that, for complex reasons, the start of 2010 apparently marks the ending phase of the complex measles programs’ last “honeymoon period”<sup>36</sup> in France.

The measles vaccination in France is complicated by the following factors:

1. The vaccine for measles was introduced in 1966;
2. However, 1-dose mass measles vaccination did not start until 1983;
3. The MMR vaccine was not introduced until 1987;
4. The second-dose recommendation was made in 1993;
5. The endpoint vaccination uptake for the 1<sup>st</sup> dose is about 93 %
6. The endpoint vaccination uptake for the 2<sup>nd</sup> dose is currently <75%;
7. About “5%” are unalterably opposed to vaccination;

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<sup>35</sup> See: <http://www.measlesinitiative.org/mi-files/Tools/Presentations/Annual%20Measles%20Partners%20Meeting%202010/Situation%20of%20Measles%20in%20France.ppt>, last visited on 11January 2011.

<sup>36</sup> In immunology, whenever a vaccine for an endemic disease is introduced to replace “natural immunity” derived from “everyone’s having that disease and recovering from it, there is an accepted “honeymoon period” where inoculation with a single dose appears to be highly successful in providing protection from that disease to the entire population because most of the population already has “natural immunity”.

However, when that reservoir of “natural immunity” drops significantly the incidence of clinical cases rebounds and, at a minimum, an additional dose of vaccine is “needed”.

As a classic example of this, we can look at the chickenpox vaccination program in the United States of America (see <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2806663/>).

After the Merck Varivax® live herpes-varicella zoster [HVZ] vaccine was approved and, in 1995, introduced for mass use in the USA using a societal cost-effectiveness justification on the basis that a single dose of vaccine would provide “lifetime” immunity, the chickenpox disease rates initially dropped precipitously.

However, by 2005, ten years later, the HVZ protection provided by the single-dose regimen was waning and, in June of 2006, ignoring the fact that introducing a second dose would clearly make the US chickenpox vaccination program significantly cost ineffective, the CDC recommended a second dose of vaccine — instead of stopping the now proven cost-ineffective universal chickenpox vaccination program as it should have done.

In 2008, after the inherent flaws in replacing “naturally acquired” chickenpox with an injected vaccine delivering a “weakened” strain of the live HVZ virus caused a surge in the incidence of HVZ as shingles in those who mostly had previously had chickenpox, a third dose, Merck’s Zostavax®, a more concentrated HVZ vaccine was introduced for those over 60.

The reason that the original 1-dose HVZ vaccination program failed was that the “natural immunity” period for HVZ in adult humans was about 7-12 years but this decline in immunity was masked by the exposure of those who had previously had HVZ to the children who were contracting and shedding HVZ, which provided the needed HVZ exogenous boosting required to restore the adults’ immunity.

Because there is much less shedding in the vaccinated children, mass vaccination actually weakened the overall immunity of the population and hastened disease recurrence such that even with three recommended doses, the incidence of shingles, the recurrence of HVZ replication by the HVZ virus lying dormant in each HVZ-infected individual has increased and the current HVZ vaccination programs have probably increased the annual healthcare costs in the USA by more than \$ 1.5 billion over the costs of the pre-vaccine “naturally acquired immunity” provided by each generation’s children being infected by, shedding, and recovering from their initial HVZ exposures and thereby providing the natural immunity needed to suppress HVZ recurrence as shingles.

Since, *absent exogenous boosting of HVZ by each subsequent cohort of children*, the “natural” immunity period was about “10” years in adults, that period is short enough to be easily recognized in a single generation whose adult life span is about 50 years.

Thus, loss of disease suppression in the HVZ example was “obvious” when the “honeymoon period” expired.

However, in the case of measles, where the “natural immunity” period was on the order of 50-plus years; mass one-dose measles vaccination was introduced in the USA in 1963; and the mass program was increased to 2 doses in 1989, coincidentally at about “22” years after the one-dose mass vaccination program was introduced in 1967 [see [http://en.wikipedia.org/wiki/MMR\\_vaccine](http://en.wikipedia.org/wiki/MMR_vaccine)].

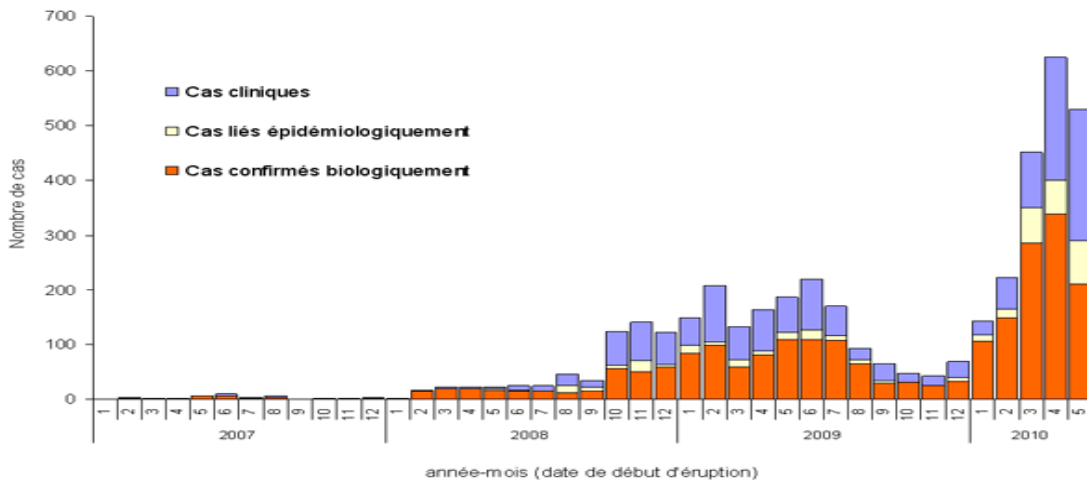
Based on Figure 33 in The CDC’s report on “Notifiable Diseases USA 1993” released on October 21, 1994 [*MMWR* 21 October 1994; 42(53): 1-73], it is clear that the second dose was added in 1989 because, without adding it, the incidence of measles might have rebounded to the 10-plus cases per hundred thousand population level and the public might have recognized that a single-dose of the measles vaccine does not provide lifetime protection to those vaccinated with a measles-virus-containing vaccine.

8. Apparently, there is a significant migratory population that transits the nation of France (“metropolitan France”) annually; and
9. Though the vaccine is provided for free by the French healthcare system, vaccination is, as it should be, given when the parent, who knows what the recommended program is, and knows and cares the most about the health of the child, asks that a given vaccine be administered.

Thus, the French vaccination program, unlike the program in the USA, is not driven by a rigid healthcare system to meet an inflexible schedule by schedule-centric healthcare providers, who typically know less about the overall health of the child than the parent and are pressured by both the health insurance “providers” and the “healthcare” system to ensure that patients are rigidly inoculated according to the CDC-recommended vaccination schedule.

Some additional insight into the recent changes in the age distribution of measles cases in France can be seen in **Table 6**.<sup>35</sup>

**Figure 1 Measles-Case Distribution From 2006 into 2010** (see footnote “34”)



Additionally, examining the reported measles cases in France in 2010 and 2011<sup>37</sup>,

**Table 6 Percentage of Measles Cases**

Age Ranges ⇒	<1 year (reported)	1–20 years (computed)	> 20 years (reported)
Year ↓	[Change from 2008]	[Change from 2008]	[Change from 2008]
<b>2008</b>	4 [N/A]	79 [N/A]	17 [N/A]
<b>2009</b>	8 [100%]	69 [– 12.7]	23 [ 35%]
<b>2010</b>	9 [125%]	53 [– 32.9]	38 [124%]

this reviewer found:

<sup>37</sup> [http://www.who.int/immunization\\_monitoring/diseases/measlesreportedcasesbycountry.pdf](http://www.who.int/immunization_monitoring/diseases/measlesreportedcasesbycountry.pdf), last visited 10 January 2012.

1. In 2010, there were 5,019 *confirmed* measles cases with an annual incidence of 7.99 per 100,000 population (indicating a population of about “62.82” million) and
2. As of 8 December 2011, there were 14,171 possible cases, 14,025 confirmed cases and the projected annualized incidence was 26.66 (or, presuming the 2011 population in France was “63.44” million, this translates into about 16,900 projected cases in 2011).

The facts [1] most of the measles infections in France are mostly (70%) occurring in those “more than 10 years of age”, 2) the 5,019 confirmed measles cases in 2010, and 3) the increase from slightly more than 5,000 measles cases in 2010 to the author’s, “*In 2011, the country recorded more than 15,000 cases, ...*”] clearly indicate:

- a. Mnookin intentionally chose to distort reality and sensationalize the number of measles cases by referencing his “*more than 15,000 cases*” in 2011 to the average number of French measles cases in 2006 and 2007 (misreported by the author as “40” cases, but apparently actually 42 cases on average<sup>35</sup>).
- b. The change projected for 2011 in the number of measles cases (about 16,900 based on the information that was reported in the December 8, 2011 WHO tabulation<sup>36</sup> and a population estimate for France of 63.44 million) from the number of confirmed measles cases in 2010 appear to indicate a roughly **2.4-fold increase** in measles cases, an admittedly significant change – but not the sensationalized “>374-fold” increase in measles cases over the “40” average annual measles cases, which the author reported as the average measles cases for 2006 and 2007 in France.
- c. Since there were 5,019 measles cases in France in 2010; more than 14,000 confirmed measles cases as of September of 2011 in France, and, *based on the age-range break out for the 2008-2010 period (shown at the top of the page)*, a disproportionate increase in measles cases occurred in both the very young and those over 20 years of age, it is clear that what was being seen in France was the ending of the initial French “honeymoon period” for the measles vaccination program, which probably started in mid-2008 and may have ended in 2011.

Unfortunately, the apparent “25+” years between 1983, when the one-dose mass vaccination program was implemented in France, and 2008, when the annual cases of measles first began to increase, probably overestimates the length “honeymoon period” for the one-dose measles vaccination program because a recommendation for a second-dose was added in 1993.

Moreover, the second-dose “honeymoon period” (apparently from 1993 to 2011 or “18+” years) in France is probably shorter than it would have been had the coverage been more than 90 % for the second dose for most of the period.

Averaging the two estimates results in an estimated French measles-vaccination-program “honeymoon period” of *roughly 22 years*.

Beyond this crude estimate, this reviewer cannot provide a more accurate “honeymoon period” assessment for France because of: **a)** complexities in both the population dynamics and the manner in which measles vaccination program was implemented in France, **b)** the paucity of information available to this reviewer about, *among other information*, the changes in the levels of coverage and the number of monthly measles cases from 1966 until the present, and **c)** the reality that the current measles vaccination program in France appears to be in the process of being significantly altered in response to the current surge in measles cases.<sup>35</sup>

### **The 1967–2011 Measles Outbreaks in the USA – A Science-based Retrospective**

Though the live-virus measles vaccine (which, over time, eventually became the Merck MMR II® vaccine we used today) was introduced in 1963, the immediate impact on measles was muted until the 1-dose recommended vaccination program was rolled out in 1967 when the downward trend from the 4-500,000 measles cases a year (about 25% of the annual birth cohort) dropped to an oscillating downward trend line that initially oscillated between about 75,000 to 14,000 cases a year with a downward trend until 1980.

Then, beginning in 1981, the trend shifted to downwardly again to an apparently oscillating “3,100 (1981) to 1,500 (1983) to 2,800 (1985)” range for the period from 1981 – 1985.

In 1986 (23 years after the measles vaccine was approved), the cases jumped to about 6,300 and, from that year onward, did not drop below 3,000 until 1992, three years after the second dose of the measles vaccine was introduced in 1989.

After the 1986 increase, the cases again dropped to about 3660 and 3500 cases for 1987 and 1988 only to rebound to about 18,200 cases in 1989 (the year the recommendation for the 2<sup>nd</sup> dose was made by the CDC) and peak at about 27,800 cases in 1990 (“coincidentally” 23 years after the 1-dose measles program was started in 1967).

As the coverage for the 1<sup>st</sup>-dose continued to increase and the coverage for the 2<sup>nd</sup> dose of measles vaccine was ramping up, the number of measles cases trended downward from about 9650 in 1991 to about 310 cases in 1993 before briefly increasing above the about 310-case level to 963 cases in 1994 and 508 cases in 1996 before trending downwardly from about 140 cases in 1997 to the low of about 40 to 70 cases in the period from 2002 through 2007.

Then, though at a much lower level of cases than the annual number of measles cases in the 1985–1989 period, a similar upward-trending pattern was observed for the period from 2007–2011, as shown in **Table 7**.

On a deeper level, for the measles program in the USA, it would appear that the initial “honeymoon period” for the measles vaccine was ending in the 1989–1990 period, when a 2<sup>nd</sup> dose was added to the one-dose mass measles vaccination program initiated in 1967 for the live-virus measles vaccine first introduced in 1963 (see “**Figure 33**” from *MMWR* 21 October 1994; **42**(53): 1-73, shown as this reviewer’s **Figure 2**).

**Table 7 Comparison of the of Measles Cases Patterns — ‘1985-89’ to ‘2007-11’**

Previous Period	1985	1986	1987	1988	1989
<b>Measles cases</b>	2,822	6282	3655	3396	18193
<b>Normalized to 1985 cases</b>	<b>“1”</b>	<b>2.226</b>	<b>1.295</b>	<b>1.203</b>	<b>6.447</b>
<b>Normalized to 2007 cases</b>	<b>“1”</b>	<b>3.256</b>	<b>1.651</b>	<b>1.233</b>	<b>&gt;5.166 [<math>&lt;6.907</math>]</b>
<b>Measles cases</b>	43	140	71	53	“223” <sup>A</sup> [ $<297$ ] <sup>B</sup>
<b>Current Period</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>

<sup>A</sup> Using the 223 cases reported in September of 2011 at <http://pediatrics.about.com/od/measles/a/measles-outbreak.htm>, last visited on 12 January 2012.

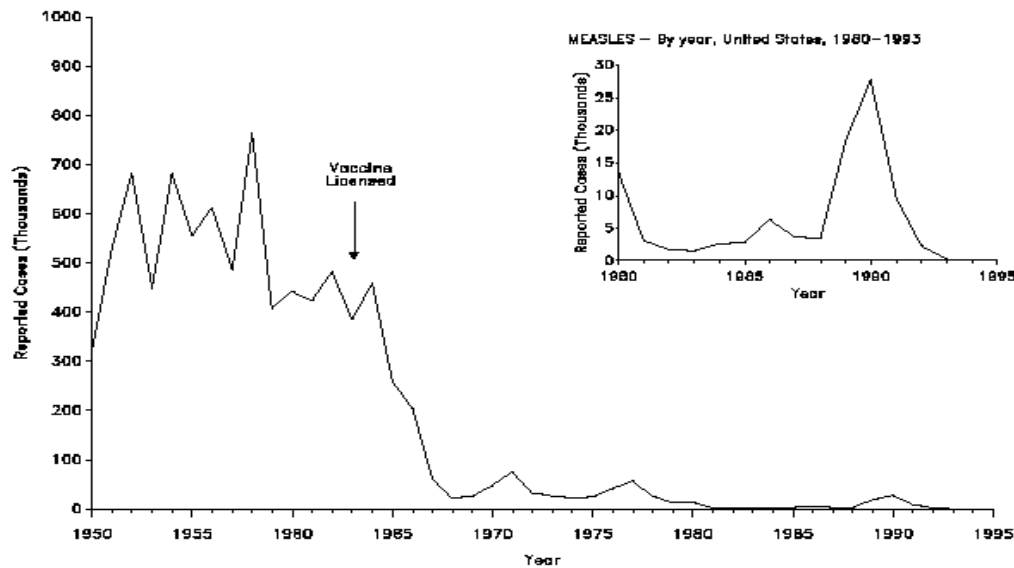
<sup>B</sup> Presuming that the measles cases declined slightly in the last quarter of 2011 as they do in most years, multiplying the 9-months’ value by 12/9 should more than account for the yearly total.

This would indicate that perhaps the Establishment had recognized that the “honeymoon period” for measles vaccination was ending in 1989, 22 years after a live-virus measles vaccine was approved in the USA (1963) and 22 years after the one-dose early childhood measles inoculation program was approved (1967) (see **Table 8**).

Moreover, perhaps the CDC noticed the preceding smaller uptick (of 3,000-plus confirmed measles cases) that was recorded in the USA in 1986, about 23 years after

**Figure 2 CDC’s Reproduced “Figure\_33”**

**MEASLES (rubeola) — by year, United States, 1950–1993**



the live-virus measles vaccines were first marketed.

Based on all of the patterns recognized by this reviewer, it would appear that the “honeymoon period” (see footnote “36”) for the measles vaccination program is 22-23 years for both the 1<sup>st</sup> dose and the 2<sup>nd</sup> dose of a “measles”-containing vaccine and that the second “honeymoon period” is ending in the USA.

In any case, using the justification that there was a need to cover the few percent individuals who were vaccinated but did not develop any antibody titer to the measles

**Table 8 Reported Measles Cases in USA – 1988-1993**

Comments		23 yrs after 1 <sup>st</sup> measles vaccines licensed (1963)			2 <sup>nd</sup> dose recommended 22 yrs after 1 <sup>st</sup> -dose program (1967)	23 yrs after 1 <sup>st</sup> -dose program (1967)			
Year	1985	<b>1986</b>	1987	1988	1989	<b>1990</b>	1991	1992	1993
Notified Cases	2,822	<b>6,282</b>	3,655	3,396	<u>18,193</u>	<u>27,786</u>	<u>9,643</u>	2,237	312
Normalized to 1986	"1"	<b>2.23</b>	1.30	1.20	<u>6.45</u>	<u>9.85</u>	<u>3.42</u>	0.793	0.111

vaccine after the one-dose early childhood vaccination program implemented in 1967, instead of assessing the cost-effectiveness of the addition or the impact on the level of serious adverse reactions from the adverse effects of measles-vaccine rechallenge on those who had previously been vaccinated, the CDC simply recommended a second dose of the measles vaccine be given to older children in 1989.

As the data show, this decision did result in an even lower level of notified disease cases by 1993 on top of the ongoing “natural” downward trend associated with measles because of genetic adaption factors in the population of the USA.

Further, as this author implies and the European outbreak data indicates, the true level of measles cases in the USA is again increasing in 2011.

Thus, the 22-23-year “honeymoon period” estimate for the one-dose measles vaccination program also seems to apply to the current CDC-recommended two-dose measles program as shown in **Table 9**. [See *MMWR*, 2011 May 13; **58**(53): 1-100, for the data on the number of confirmed measles cases in the 2004–2009 period; [http://www.who.int/immunization\\_monitoring/diseases/measlesreportedcasesbycountry.pdf](http://www.who.int/immunization_monitoring/diseases/measlesreportedcasesbycountry.pdf) for the measles cases in 2010; and this article for the confirmed measles cases reported through Dec 8, 2011, where the actual reporting probably only covers the first nine (9) months of the year.]

**Table 9 Reported Measles Cases in USA – 2004-2011<sup>A</sup>**

Year	2004	2005	2006	2007	2008	2009	2010 <sup>B</sup>	2011 <sup>C</sup>
Notified Cases	37	61	55	43	<b>140</b>	<b>71</b>	63	<b>“221”</b>
<sup>A</sup> From <i>MMWR</i> , 2011 May 13; <b>58</b> (53): 1-100, except where noted. <sup>B</sup> From <a href="http://www.who.int/immunization_monitoring/diseases/measlesreportedcasesbycountry.pdf">http://www.who.int/immunization_monitoring/diseases/measlesreportedcasesbycountry.pdf</a> <sup>C</sup> From <a href="http://www.huffingtonpost.com/seth-mnookin/need-for-reliable-science-journalism_b_1183429.html">http://www.huffingtonpost.com/seth-mnookin/need-for-reliable-science-journalism_b_1183429.html</a> , last visited 8 January 2011.								

Thus, given the current general trend toward increasing case of measles even in some of those who have received both doses of a live-measles-vaccine, then:

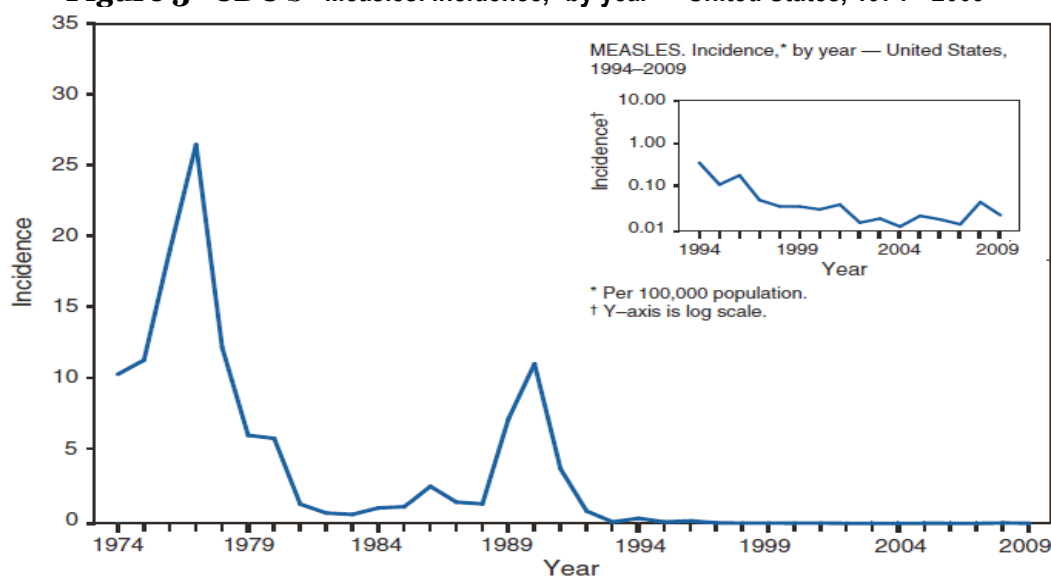
- a. Practically, at measles-vaccination coverage levels that exceed 92 % of the total population in the USA in 2012 and probably exceed 94% of the non-exempt population of Americans, the higher level of measles cases may either increase again in 2012 or not stabilize below the “150” case level after

- 2011 unless: **i)** another mass dose is added to the recommended schedule (which will probably significantly increase the risk for serious vaccination-associated adverse outcome) or **ii)** the current vaccination schedules or MMR vaccines are otherwise altered in a manner that reduces the risk of a serious vaccination reaction; and
- b.** The “honeymoon period” for the two-dose measles vaccination program is ending in highly vaccinated populations – apparently faster in Western Europe than in the USA, where notified cases reported in 2011 (“22-23” years after the two-dose program was adopted in the USA) appear, if the French experience is applicable in any manner to the USA, to mark at least the beginning of its end (see also the supporting figure from *MMWR*, 2011 May 13; **58**(53):1-100, “Summary of Notifiable Diseases --- United States, 2009”, which is reproduced in **Figure 3**).

In the USA, the American public is beginning to notice the disconnects between reality and:

- a.** The claimed long-term immunity, frequently touted as “lifetime” immunity, from measles conferred by our measles vaccine program;
- b.** The need for multiple doses of a live-measles-virus vaccine;
- c.** The serious adverse reactions to the vaccine used; and
- d.** The fact that, *before an ‘effective’ live-virus-measles vaccine was marketed*, people generally had measles once and, when they recovered from the initial infection, generally remained immune from re-infection for the rest of their lives (or certainly more than 50 years).

**Figure 3** CDC’s “Measles. Incidence,\* by year --- United States, 1974—2009”



\* Per 100,000 population.

Measles vaccine was licensed in 1963. Evidence suggests that measles is no longer endemic in the United States.

**Alternate Text:** This figure is a line graph that presents the incidence per 100,000 population of measles cases in the United States from 1974 to 2009.”

Cognizant of the preceding realities, in the USA, the Establishment’s current

strategy for maintaining their direct and indirect revenues from the current measles vaccination program (which actually, recommends two MMR vaccines, MMR II and ProQuad) appears to consist of recommending an additional dose for certain “at risk” population segments instead of making a mass third-dose recommendation.

The evidence for lifetime ‘natural’ measles immunity for almost everyone in a population where there was no mass measles vaccination program in the USA is available along with low level of annual measles-related deaths before any measles vaccines were marketed in the USA.

This ‘natural’ immunity arose from our being exposed to one of the circulating measles viruses; being infected by that measles virus and actively shedding it into the environment; having our immune system properly resolve the infection disease; and, critically, then having us periodically re-exposed to the measles virus shed by the subsequent cohorts of young children who, *after being infected*, are actively shedding live measles virus back into the environment in which they reside.

Thus, similar to the exogenous boosting required to keep the chickenpox virus (*herpes varicella zoster [HVZ]*) from recurring as ‘shingles’, the measles-virus shed by those infected with measles initially serves to “boost” the protection from being re-infected in those who had previously had measles.

However, based on the current vaccination program in the USA, measles incidence realities, and a vaccine/vaccination program that, compared to natural infection, greatly suppresses, *but does not totally suppress*, the shedding of measles virus particles after inoculation with one of the current live-measles-virus-containing MMR vaccines in a two-dose program, the current live-measles-virus-containing-vaccines do not provide the level of measles-virus shedding required to maintain “lifetime” protection in the general population even if “100%” of the population were “fully” vaccinated.

When most of the population has been vaccinated, the duration of the *population protection* provided by the current two-dose program is, on average, probably less than 25 years.

Moreover, only the realities that:

- a. Very, very few US residents encounter and are infected by locally circulating measles-virus particles;
- b. Few measles-infected individuals re-enter the USA each year after having been infected outside of the country; and
- c. Just a percentage of that small number of annually infected individuals are able to infect one or more others before our public-health system locates and quarantines all of the infected individuals who are actively shedding measles virus or have been exposed to an individual who is infectious –

have collectively combined to preclude the USA from annually having hundreds or thousands of clinical measles cases each year, as is the case currently in Germany and France, where the infected persons entering these countries number in the hundreds.

Instead of admitting the preceding actualities, the Establishment continues to:

- a. Ignore or downplay the risks for, and incidence of, the serious adverse reactions from the mass measles-virus-containing-vaccine program;
- b. Refuse to prove that: **i)** the current measles vaccination is medically cost effective when all of the costs, *including the deaths costs and the lifetime costs of those who are harmed*, are considered or **ii)** the current program improves the overall health of those who are vaccinated;
- c. Claim that the current MMR vaccination program provides ‘immunity’ (long-term, if not lifetime, protection to being re-infected<sup>38</sup> by subsequent natural exposure to a measles virus) to those vaccinated according to the CDC’s present “two-dose” vaccination recommendations; and
- d. Act as if the persons who have not been vaccinated were the cause for the failure of the measles vaccination program to provide “immunity” (lifetime protection from having a clinical case of measles) to those individuals who have been vaccinated as the CDC suggests,

when, *as this reviewer understands*, the Establishment “knows” that the current two-dose measles-vaccination program does not provide lifetime immunity to even most all of the fully vaccinated individuals nor, as the WHO implicitly admits, protect “all” (> 99%) of those fully vaccinated in a two-dose measles-vaccination program from subsequently contracting a clinical cases of measles when, as adolescents or adults, they are re-exposed to some circulating live measles virus.

### **Differing Views of Disease Fear Mongering and Vaccination Program Realities**

“The greatest risk of all, of course, is to infants, who are both too young to receive the MMR vaccine -- the first dose isn't given until kids are 12 months old -- and are the ones most likely to suffer serious complications. We owe it to them, and to ourselves, to make sure we do a better job in the future.”

In this passage, this author appears to be engaging in fear mongering rather than responsible, science-based journalism.

First, the author makes an unsupported “*ad miseri cardium*” argument about children and the harm from measles that ignores the reality that the children who are “*most likely to suffer serious complications*” are those with:

- a. Underlying medical conditions; and/or
- b. Unrecognized and/or unaddressed sanitary, hygiene, and important dietary deficiencies<sup>39</sup>.

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<sup>38</sup> Since viable, live measles viruses are injected into those who are vaccinated, currently a fully vaccinated American has already been infected with measles at least twice. Though the Establishment does not address this reality, each time a person is injected (inoculated) with a dose of a vaccine containing live measles virus particles, that person is being unnaturally infected with measles and, as the package inserts for the FDA-approved vaccines, may contract “atypical measles). Thus, everyone given a dose of a MMR vaccine is being given a case of measles – not protected from having a case of the measles, though the vaccine-derived infection does mostly causes sub-clinical cases and is claimed to cause fewer serious adverse reactions than having measles naturally.

<sup>39</sup> This reviewer finds that it is ironic that vaccination programs that cause death after children are inoculated with a given vaccine, where the deaths are essentially caused by a serious dietary deficiency (e.g., measles-vaccine death in the vitamin A deficient and pertussis-vaccine death in the vitamin C deficient) are, after killing up to half of the inoculated babies for some period of time, treated with bolus doses of the crucial vitamin but that long-term dietary health of these children tends to be ignored.

Second, the author acts as if we understand how the human immune system functions, when we do not – though we currently ‘know’ that a given vaccine can adversely affect:

- a. The “Th1,” “Th2,” “Th3,” “TR1,” “Th9,” “Th17” and “T reg” components of the immune system, and
- b. The cytokine patterns and levels generated.<sup>40</sup>

Yet, if they address the immune systems at all, most general vaccine articles mention the cellular-mediated immune system (Th1 cells – T-helper 1), the humoral immune system (Th2 cells – T-helper 2), and, less frequently, the regulatory immune system (Th3 cells – T-helper 3) as well as, in passing, the vaccines’ impacts on dysregulation of various human immune system functions.

Additionally, the deleterious effects of vaccination on the thymus gland are such that, from a 1988 reference book,<sup>41</sup> the article reported, “When autopsies were performed on vaccinated Americans, it was found that the thymus gland had shrunk after puberty, while there was little deterioration in the thymus gland of adults in poorly vaccinated countries. Thymus gland abnormalities are associated with many diseases and tumours.<sup>10</sup>”<sup>42</sup>

Further, the deleterious immune-system effects of vaccines, which contain some level of some ill-defined polymeric aluminum adjuvant or some level of added Thimerosal (49.55% mercury by weight), may be playing a role in resulting in adverse neurological, gastrointestinal, allergic, and other chronic adverse developmental conditions that may underlie the growing levels of lifelong chronic disease in our children.<sup>43</sup>

Third, the author acts as if a healthy child’s having a childhood disease and recovering from it has no benefits to the child.

However, there is evidence that having some of the “endemic” childhood diseases when “nature” intends the child to have them (after the child’s well-nourished and hydrated breastfeeding mother “dries up” – typically, after two to five years of nursing) may significantly reduce the child’s lifetime risk for contracting certain cancers.<sup>44</sup>

Even though it is cognizant of the preceding realities, to maximize its profit, the Establishment touts vaccination even as, to some degree, it:

- a. Grudgingly admits that vaccination for most childhood diseases provides shorter, abnormal and incomplete immune-system protection from the childhood diseases for which there is a vaccine for a given “natural”<sup>45</sup> child

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<sup>40</sup> For example, see [http://repro-med.net/repro-med-site2/index.php?option=com\\_content&view=article&id=27:an-introduction-to-the-immune-system&catid=11:about-the-program&Itemid=37](http://repro-med.net/repro-med-site2/index.php?option=com_content&view=article&id=27:an-introduction-to-the-immune-system&catid=11:about-the-program&Itemid=37), last visited on 22 January 2012.

<sup>41</sup> <http://www.missionislam.com/health/vaccinefacts.htm>, last visited on 22 January 2012.

<sup>42</sup> Ref. “10”, Walene, J, “Immunisation: The Reality Behind the Myth”, (Bergin & Garvey, 1988), pp. 16-17.

<sup>43</sup> <http://www.nvic.org/Doctors-Corner/Aluminum-and-Vaccine-Ingredients.aspx>, last visited on 22 January 2012.

<sup>44</sup> For example, those who have chickenpox have lower incidence of gliomas (fast growing brain tumors) than those never having chickenpox. {See Wrensch M., Weinberg A, Wiencke J, Miike R., Barger G, Kelsey K. Prevalence of Antibodies to Four Herpes viruses among Adults with Glioma [Brain Tumor] and Controls. *Am J of Epidem*, 2001; **154**(2): 161-165. Wrensch M, Weinberg A, Wiencke J, Miike R, Sison J, Wiemels J, Barger G, DeLorenze G, Aldape K, Kelsey K. History of Chickenpox and Shingles and Prevalence of Antibodies to Varicella-Zoster Virus and Three Other Herpes viruses among Adults with Glioma and Controls. *Am J Epidemiol* 2005; **161**(10): 929-938.}

<sup>45</sup> Because of the widespread use of live-virus polio vaccines for decades in the USA and their ongoing use in much of the world, the pervasive polioviruses that currently exist in our environment have displaced the natural strains and are the vaccines’ polioviruses or their recombinant relatives that continue to infect Americans though most of these infections are so mild that they are not

- hood disease;
- b. Ignores the reality that the once-rampant childhood disease, scarlet fever<sup>46</sup>, a disease caused by an exotoxin released by *Streptococcus pyogenes*, has virtually disappeared in the USA without an effective vaccine – typically, allopathic medicine effectively addresses the rare cases seen today with antibiotic therapy;
  - c. Knows that most of today’s modern<sup>47</sup> vaccines for contagious diseases were introduced in the USA some years after the disease had begun to naturally “die out” in the USA, and
  - d. Does not address the following realities in the “modern vaccine” era for the generally self-resolving, USA-endemic childhood diseases:
    - i. Respiratory Syncytial Virus (RSV), a viral disease that was only “discovered” in 1956, (see [http://www.medicinenet.com/respiratory\\_syncytial\\_virus/article.htm](http://www.medicinenet.com/respiratory_syncytial_virus/article.htm), for example), which may have arisen as from contaminant in the early polio vaccines;
    - ii. Fifth Disease, technically caused by human parvovirus B19 (see, for example, [http://en.wikipedia.org/wiki/Fifth\\_disease](http://en.wikipedia.org/wiki/Fifth_disease)); and
    - iii. Roseola<sup>48</sup>, also known as also known as Sixth Disease, exanthem subitum, and roseola infantum, which is a viral illness caused by two human herpes viruses, herpesvirus (HHV) type 6 and HHV type 7 (for a simpler review, see the family-friendly web site: <http://kidshealth.org/parent/infections/skin/roseola.html>) for which there are currently no effective vaccines.

### Reviewer’s Closing Remark

This review has established that the article, “*The Autism Vaccine Controversy and the Need for Responsible Science Journalism*”, on which this review is based, is neither “*reliable, responsible science journalism*” nor even responsible journalism.

### End of the Review

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noticed, except for an occasional case, like the one reported in 2009, where the patient, an immunocompromised woman, was paralyzed by and died from her polio infection.

<sup>46</sup> For example, Rolleston JD. The History of Scarlet Fever. *British Med J* or *BMJ*, 1928 Nov; **2**(3542): 926–929.

<sup>47</sup> Here, “modern vaccines” are vaccines approved for use in the USA from the 1950s to the present.

<sup>48</sup> <http://www.mayoclinic.com/health/roseola/DS00452/METHOD=print>, last visited on 6 January 2012.

## **About the Reviewer**

In addition to the general information available on his web site, <http://www.dr-king.com/>, Paul G. King is the Science Advisor and current Secretary for the Coalition for Mercury-Free Drugs (CoMeD, Inc., a 501(3)(c) corporation), <http://www.mercury-freedrugs.org/>.

As a scientist and student of the federal regulations and statutes that govern drugs, including vaccines, Dr. King has led CoMeD, on two (2) separate occasions, in the drafting and submission of a “Citizen Petition” seeking to have the federal government comply with the law, and, based on the improper denial of the Citizen Petition submitted, a federal lawsuit seeking to have the Federal District Court for the District of Columbia compel the Secretary of the Department of Health and Human Services and the Commissioner of the FDA to comply with the statutes and regulations regulating their lawful conduct. The second civil suit, 1:2009-cv-00015, is still being litigated at the present time.

Additionally, Dr. King has, on several occasions, drafted legislation for submission to the Congress of the USA as well as to the legislatures of various States, submitted cogent comments in opposition to proposed changes to federal regulations that are not in the public interest or appear to be at odds with the law, reviewed numerous documents, and written several articles on a variety of vaccine-related and other issues – including a formal request for correction of false and misleading statements by the FDA in a previous posted document under the applicable Data /Information Quality regulations.

Finally, Dr. King has: **a)** provided various groups with his analysis of various other Congressional bills, resolutions and treaty documents, and **b)** been an author of several papers bearing on issues related to the toxicity of Thimerosal and other compounds and, if any, their connection to various chronic neurodevelopmental, other developmental and behavioral abnormalities that appear to be well-above ( $\geq 1$  in 10 children; asthma), above ( $> 1$  in 100 children; the autism spectrum disorders), at ( $\sim 1$  in 1000 children; childhood type 1 diabetes), or approaching (life-threatening peanut allergy) epidemic childhood levels in the USA.