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Introduction

Following this introduction page is this reviewer's analysis of "**Anti-vaccine Movement Causes the Worst Whooping Cough Epidemic in 70 Years**" by Steven Salsberg, which was downloaded on July 23, 2012 from:
http://www.forbes.com/sites/stevensalzberg/2012/07/23/anti-vaccine-movement-causes-the-worst-whooping-cough-epidemic-in-70-years/

This analysis, titled "**Draft Review of: '*Anti-vaccine Movement Causes the Worst Whooping Cough Epidemic in 70 Years*'**", begins on the next page.

Introductory Remarks

First, to "simplify" this analysis, each portion of the article being reviewed is quoted in a "Times New Roman" font.

Further, when some specific sentence, clause phrase, or word is being addressed within the review, it is quoted in an *italicized* "*Times New Roman*" font.

Second, this reviewer's assessments are written in a "Verdana" font, follow each quoted portion of the article, and are indented to clearly separate the review remarks from the preceding portion of the document that is being addressed.

Third, when other sources are quoted, the text is in an "Arial Narrow" font.

Finally, should anyone find any significant factual error in this review for which they have independent[a], scientifically sound, peer-reviewed published substantiating documents, please submit that information to this reviewer so that he can improve his understanding of factual reality and, where appropriate, revise his views and this analysis.

Respectfully,

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[To whom all responses should be directed]

[a] To qualify as an independent document, the study should be published by researchers who have no direct or indirect conflicts of interest from their ties to either those commercial entities who profit from the sale of vaccines or those entities, academic, commercial or governmental, who directly or indirectly, actively promote vaccines, the development of vaccines, and/or inoculation programs using vaccines.

Draft Review of
"*Anti-Vaccine Movement Causes the Worst Whooping Cough Epidemic in 70 Years*"

Main Review Topics

Draft Review of
"*Anti-Vaccine Movement Causes the Worst Whooping Cough Epidemic in 70 Years*"

As any defender of the *status quo* on vaccines and vaccination in today's United States of America (USA) would, Steven Salsberg, PhD Biologist, writer of the article being reviewed, begins by distorting the facts in the title.

"*Anti-Vaccine Movement*"?

This reviewer is an ardent advocate for safe, effective, and cost-effective vaccines and vaccination programs.

As such, he recognizes that there is a nascent "vaccine safety" movement, a growing "vaccination choice" movement, and a restive "informed consent" movement.

Moreover, there have been and currently still are groups who are unalterably opposed to vaccines' being given to themselves, their children or others on religious, philosophical, moral, spiritual, scientific or other grounds.

However, these groups are neither unified nor "anti-vaccine" per se.

If anything, they are groups with different agendas — not a unified "***Anti-Vaccine***" movement.

Moreover, the realities are:

- Each of these group's active membership is usually under 1,000;
- These groups lack solidarity and the active support of some significant percentage of the public.
- These groups are not funded by vested-interest professions, the manufacturers and governmental agencies as the recognized "pro-vaccine" movement is.

Together, these deficits combine to preclude there being an anti-vaccine movement.

Thus, Salsberg is simply using a longstanding 'straw man' created long ago by his fellow vaccine apologists to divert the public's attention from the reality that, *as this reviewer has repeatedly established*[1], the current pertussis vaccines are neither effective in providing those

[1] In the applicable documents published on the "Documents" section of this reviewer's website, http://dr-king.com.

inoculated with them long-term protection from contracting whooping cough nor, *given the current vaccination program recommendations published by the United States (US) Centers for Disease Control and Prevention (CDC)*, cost effective.

Moreover, *for the DTP (DTaP or DTwcP)*[2] *vaccines given to those under one year of age*, this reviewer has determined that the current pertussis-containing DTP vaccines are not safe for use in that vaccination program.

"*Causes … Whooping Cough*" Realities

First, as any biologist[3] should know and this reviewer, a chemist and long-time student, and survivor, of those childhood diseases for which we currently have a vaccine, does know, "***Whooping Cough***" can be "caused" by any organism[4] that can infect the respiratory system in a manner that induces the symptoms that define this disease.

Today, the principal bacteria that cause "whooping cough" disease are *Bordetella pertussis* (*B. pertussis*) and, *with increasing frequency* (even though this fact is often not disclosed to the public[5]), *Bordetella parapertussis* (*B. parapertussis*)[6].

Thus, for those who accept the allopathic view of disease, appropriate "disease organism infection", and not Salsberg's 'straw man' (the "***Anti-Vaccine Movement***"), causes "whooping cough".

Second, beyond simple microbial "infection", the exposed individual's "innate" (mucosal) immune system components must fail to stop the rapid replication of the infecting biological entity in the respiratory system.

Moreover, as recently established for one particular virus[7], having a

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[2] The acronym "DTP" is used for any diphtheria, tetanus and pertussis vaccine approved for use in young children; the acronym "DTaP" for childhood diphtheria, tetanus and acellular pertussis vaccine; and the acronym "DTwcP" is used for any diphtheria, tetanus and whole-cell pertussis vaccine.

[3] According to his Wikipedia credentials (http://en.wikipedia.org/wiki/Steven_Salzberg), this writer, Steven Salsberg, PhD, is a biologist.

[4] Here, the term "organism refers to any bacterium, fungus, mold, yeast, or virus that can infect the human respiratory system.

[5] http://www.cdc.gov/pertussis/about/causes-transmission.html, this page was last updated on 11 July 2012; last visited on 24 July 2012:

"Causes

Pertussis, a respiratory illness commonly known as whooping cough, is a very contagious disease caused by a type of bacteria called *Bordetella pertussis*. …".

[6] Cherry JD, Seaton BL. Patterns of Bordetella parapertussis Respiratory Illnesses: 2008–2010. ***Clin Infect Dis.*** 2012; **54**(4): 534-537.

[7] Moseman EA, Innacone M, Bosurgi L, Tonti E, Chevrier N, Tumanov A, Fu Y-X, et al. B Cell Maintenance of Subcapsular Sinus Macrophages Protects Against Fatal Viral Infection Independent of Adaptive Immunity. ***Immunity*** 2012 Mar 23; **36**(3): 415-426. [**Note:** Here, the researchers conclusively

protective level of disease-related adaptive-immune-system antibodies is not necessarily sufficient to prevent a person exposed to an infective level of *B. pertussis* or *B. parapertussis* from developing a clinical case of whooping cough.

Third, if an individual seems to have been healthy and well nourished before exhibiting the symptoms of whooping cough, then that person's vitamin D[8] stores are probably less than adequate and/or his or her level of vitamin C intake is probably deficient[9] so that his or her immune system cannot adequately protect the respiratory system's cilia and tissues from being compromised by the out-of-control replication of those resident disease-related organisms that can cause

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showed that the survival of the animals exposed to a particular infectious agent did not depend on their having been vaccinated and developing a significant antibody titer for the specific disease agent but rather depended upon their mucosal immune systems' ability to effectively thwart that disease agent's penetration of the mucosa.]

[8] For the purposes of this discussion, anyone having a 25-hydroxy vitamin D level that is below 50 nanogram (ng)/milliliter (mL) [about 125 nanomole (nm)/liter (L)] is presumed to have a suboptimal, depleted level of 25-hydroxy vitamin D-3 that needs supplementation. Ideally, those with no chronic adverse medical conditions should have a "25-hydroxy vitamin D" level that is between 80 and 100 ng/mL. For those who have an underlying pre-existing adverse chronic medical condition, the level of 25-hydroxy vitamin D should be between 100 and 125 ng/mL. [**Note:** The recommendations for vitamin D-3 supplementation are based on this reviewer's personal views derived from the study of the latest findings in "orthomolecular medicine" and the feedback from the health improvements in colleagues with serious chronic medical conditions whose health has improved markedly when they have adjusted their 25-hydroxy vitamin D-3 levels to the 95-to-125-ng/mL range. In treating infectious diseases, higher levels of vitamin D-3 supplementation seem to shorten the course of the disease as well as lessen disease severity. {See, for example, Vieth R. Vitamin D supplementation, 25-hydroxyvitamin D concentrations, and safety. ***Am J Clin Nutrition 1999*** May; **69**(5): 842–856 (which shows that blood levels of 25-hydroxy vitamin D below 175 ng/milliliter are safe); Faloon W. Startling Findings About Vitamin D Levels in Life Extension® Members. ***Life Extension Magazine*** 2012 Jan; 2010: online 2pages (recommend 25-hydroxy vitamin D blood levels of > 50 ng/milliliter); Liu MC, Xiao HQ, Brown AJ, Ritter CS, Schroeder J. Association of vitamin D and antimicrobial peptide production during late-phase allergic responses in the lung. ***Clin Exp Allergy*** 2012 Mar; **42**(3): 383-391 (which shows immune function of vitamin D in lung mucosa); and Schwalfenberg GK. A review of the critical role of vitamin D in the functioning of the immune system and the clinical implications of vitamin D deficiency. ***Molecular Nutrit Food Res*** 2011 Jan; **55**(1): 96–108 as well as Disagreement among experts about the correct vitamin D dose. ***Nature News***, 2011 Jul 6 (on how IOM again set the target minimum level too low) for some insights.}]

[9] When healthy, an infant's daily vitamin C intake should be about 50 milligrams (mg) of vitamin C per kilogram (kg) of body mass. When sick with "whooping cough", periodic vitamin C supplementation should be considered at total daily doses of 250 – 375 mg of vitamin C/kg initially followed by appropriate dosage reductions as the patient recovers. [See footnote "**27**".]

The pre-antibiotic-era 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] initially that tappers off to lower-level supplementation for up to 4 months to ensure full recovery needs to be reconsidered and added to a "standard of care" that should include vitamin D-3 [2] and, *for non-breastfeeding children*, added probiotics.

[1] The patient's gastrointestinal state and the effectiveness and sound of the coughing should be used to adjust the total dose and the dosing intervals. Increase the total dose until the patient's coughs up the fluids that collect in the respiratory system and causes 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 (see footnote "**27**").

[2] Initially, 50,000 IU of vitamin D-3 (D-3) should be given daily for 3 to 5 days followed by sufficient D-3 daily to maintain the body's 25-hydroxy-D-3 blood level between 65 and 100 ng/mL (162 and 250 nm/L/) [or between 100 and 125 ng/mL {250 and 312 nm/l} if the patient also has an underlying chronic medical condition] to permit the body to effectively generate its own location-specific polypeptide antibiotics (see footnote "**28**" and Dr. Mayer Eisenstein's Webinar, "Why You Have Not Heard The Truth About Vitamin D'', which was first presented on 15 January 2012 and can be accessed through Dr. Eisenstein's web site at http://homefirst.com/cms/index.php/health-info/media/webinars/archives, last visited on 6 August 2012.

the exposed individual to exhibit the clinical symptoms of whooping cough.

Fourth, the "pertussis" vaccine's components are not directly active against *B. pertussis* but rather cause the body to generate antibodies against certain isolated toxins, which are produced by those bacteria that are labeled as *B. pertussis*[10,11].

Fifth, the "pertussis" vaccines do not provide protection from *B. parapertussis*[12] and provide less than 100% protection from *B. pertussis* in significantly less than 100% of those who are "fully" vaccinated[13].

Moreover, the current DTaP/Tdap vaccination program in the USA is increasing the percentages of cases of whooping cough that are either caused by *B. parapertussis*[14] or, *as some are beginning to claim*, caused by mutated strains of *B. pertussis* that evade the protective effects of multiple time-displaced inoculations with the current DTaP/Tdap vaccines[15,16].

Such disease organism "changes" (mutations) have been documented in vaccines for other bacterial diseases for which there are multiple causative strains[17]

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10 Zhang L, Prietsch SO, Axelsson I, Halperin SA (2012-03-14). "Acellular vaccines for preventing whooping cough in children." ***Cochrane Database of Systematic Reviews*** 2012, Issue 3. Art. No.: CD001478. DOI: 10.1002/14651858.CD001478.pub5. Link to Cochrane Library.

11 For example, from the Sanofi Tripedia® DTaP vaccine's package insert that was approved by the FDA in December of 2005, page 1 (emphasis added):

"Each 0.5 mL dose is formulated to contain 6.7 Lf of diphtheria toxoid and 5 Lf of tetanus toxoid (both toxoids induce at least 2 units of antitoxin per mL in the guinea pig potency test), and 46.8 µg of pertussis antigens. This is represented in the final vaccine as approximately 23.4 µg of inactivated PT and 23.4 µg of FHA. The inactivated acellular pertussis component contributes not more than 50 endotoxin units to the endotoxin content of 1 mL of DTaP. The potency of the pertussis components is evaluated by measuring the antibody response to PT and FHA in immunized mice using an ELISA system. The vaccine is formulated without preservatives, but contains a trace amount of thimerosal [(mercury derivative), ≤0.3 µg mercury/dose)] from the manufacturing process . Each 0.5 mL dose also contains, by assay, not more than 0.170 mg of aluminum and not more than 100 µg (0.02%) of residual formaldehyde. The vaccine contains gelatin and polysorbate 80 (Tween-80), which are used in the production of the pertussis concentrate."

12 http://bioweb.uwlax.edu/bio203/s2007/wolf_bri2/.

13 Based on the information provided in the "CLINICAL STUDIES" section of the vaccine producer's self-serving package inserts for each of the DTaP/Tdap vaccines that have been approved by the U.S. Food and Drug Administration (FDA).

14 Cherry JD, Seaton BL. Patterns of Bordetella parapertussis Respiratory Illnesses: 2008–2010. ***Clin Infect Dis.*** 2012; **54**(4): 534-537.

15 Bart MJ, van Gent M, van der Heide HGJ, Boekhorst J, Hermans P, Parkhill J, Mooi FR. Comparative genomics of prevaccination and modern *Bordetella pertussis* strains. ***BMC Genomics*** 2010, **11**: 627 doi:10.1186/1471-2164-11-627.

16 Litt DJ, Neal SE, Fry NK. Changes in Genetic Diversity of the Bordetella pertussis Population in the United Kingdom between 1920 and 2006 Reflect Vaccination Coverage and Emergence of a Single Dominant Clonal Type. ***J Clin Microbiol*** 2009 Mar; **47**(3): 680-688.

17 For example, the effects of the "strain prevalence drift" and the emergence of "new strains" in the population for the bacterium called Streptococcus pneumonae [*S. pneumonae*] caused Wyeth [now Pfizer] to have to add six (6) additional strains to its Prevnar® (7-strain) pneumococcal vaccine and rebrand it as Prevnar 13® to restore the vaccine's "efficacy".

Sixth, vaccination with a "pertussis component"-containing vaccine produces some low level of "*B. pertussis*" carriers ["Pertussis Harrys"] who, *although they do not exhibit the symptoms of whooping cough*, can and do spread *B. pertussis* to others[18].

Seventh, researchers are increasingly finding that vaccination before children are 2 years of age carries with it increased risks for their developing chronic diseases[19] and, *for the DTP vaccines*, ups their risk for developing childhood asthma, which can be significantly reduced by delaying the start of the initial three-dose vaccination series by two (2) months or more[20].

Eighth, a treatment regimen that properly provides extra supplementation with vitamin D-3 and vitamin C along with adequate levels of all of the other vitamins, minerals, and key nutrients is more effective for treating whooping cough than a regimen that attempts to "control" whooping cough cases by using:

a. The current vaccination program with less-than-effective vaccines in an ineffective attempt to prevent cases of whooping cough, and

b. Pharmaceutical antibiotics to treat those infected in an attempt to "control" the resultant clinical infection, which serves to increase the risk of antibiotic-resistant bacterial mutations and to also decimate the patient's gastrointestinal system's biologically important microbiological flora.

Ninth, at best, the current views are that the "protection" provided by "pertussis" vaccination lasts no more than 3 years in some percentage of those who are "fully" vaccinated and initially protected[21].

In the pre-vaccination era, having a case of whooping cough and recovering from it conservatively provided 10 to 50 years of protection from a re-infection that resulted in a clinical case of whooping cough caused by either *B. pertussis* or *B. parapertussis*[22].

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[18] Field LH, Parker CD. Pertussis Outbreak in Austin and Travis County, Texas, 1975. ***J Clin Microbiol***, 1977 Aug; **6**(2): 154-160.

[19] http://www.ecomed.org.uk/wp-content/uploads/2011/09/2-halvorsen.pdf, last visited on 25 July 2011:

[20] McDonald KL, Huq SI, Lix LM, Becker AB, Kozyrskyj AL. Delay in diphtheria, pertussis, tetanus vaccination is associated with a reduced risk of childhood asthma. ***J Allergy Clinical Immunol*** 2008; **121**: 626-631.

[21] http://www.foxnews.com/health/2011/10/20/whooping-cough-vaccine-protection-fades-after-3-years/, last visited on 25 July 2012.

[22] Wearing HJ, Rohini P. Estimating the Duration of Pertussis Immunity Using Epidemiological Sciences. ***PLoS Pathol***. 2009 Oct: **5**(10): e1000647 (11pgs).

Lest the reader think that the early loss of protection from pertussis infection in those who are vaccinated is new information, an article by Drs. James W. Bass and Stephen R. Stephenson[23], titled, "The return of pertussis", which was published in 1987 when the DTwcP vaccines were being recommended in the USA, directly discussed the realities concerning the protection against a pertussis infection,

> "Unlike the natural disease which appears to confers life long immunity, present day pertussis vaccines confer only partial and relative transient protection. A high degree of protection persists for 3 years, decreasing thereafter for 12 years after which little or no protection is evident[17]. Accordingly only those adolescents and young adults known to have had clinical pertussis should be considered to be immune. ...".

Furthermore, seven years later, in a 1994 article[24] titled, "Return of epidemic pertussis in the United States", where Dr. Bass was again the lead author, still speaking about the DTwcP vaccines, the authors stated,

> "Several years ago we predicted a resurgence of pertussis in the United States.[1] This prediction was based on the changing epidemiology of pertussis related to the use of pertussis vaccine. Past studies have shown that whole cell pertussis vaccine is approximately 80 to 90% protective for 3 years after the last booster injection, decreasing thereafter to 12 years after which no protection is evident.[2, 3] ... With an annual birth rate in the United States of 3.9 million[12]"[,] "these young infants who are prone to have severe disease remain susceptible to pertussis throughout much of their first year of life and they are exposed to an ever increasing number of adults with unsuspected pertussis. We predicted that the number of pertussis-susceptible adults would increase from 5 million in the 1970s to 20 million in the 1980s and to 70 million in the 1990s.[1]
>
> Using these basic facts and working with population dynamics of the groups defined above, it was possible to project that overall there would be a decline in the number of cases of pertussis in the United States until a nadir was reached in the in the mid-1970s. ..."

Thus, *for more than 25 years*, the medical establishment, the governmental agencies, and the vaccine makers have known that the pertussis vaccines do <u>not</u> provide long-term protection from pertussis infection and, *for more than 17 years*, they have known that the pertussis vaccines would generate an ever-growing number of sub-clinical pertussis carriers and increase the harm to children who were too young to be vaccinated.

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[23] Bass JW, Stephenson SR. The return of pertussis. ***Pediatric Infect Dis J*** 1987 Feb; **6**(2): 141-144. http://journals.lww.com/pidj/Citation/1987/02000/The_return_of_pertussis.1.aspx

[24] Bass JW, Wittler RR. Return of epidemic pertussis in the United States. ***Pediatric Infect Dis J*** 1994; **13**(5): 343-344.1. http://journals.lww.com/pidj/Citation/1994/05000/Return_of_epidemic_pertussis_in_the_United_States.2.aspx

The current surge in cases of whooping cough in those "fully" vaccinated with the current DTP/Tdap vaccine simply confirms the projections made in the 1994 Bass and Wittler paper.

Yet, other than to add additional booster doses of these vaccines, our governmental health agencies have done little to nothing to stop the ever-increasing harm that their actions have created and are worsening.

Tenth, the reality is that more than 75% of the cases of whooping cough in outbreaks in Washington State since 2002 reportedly have been occurring in "fully" vaccinated individuals[25], and this reality continues to be true in the 2012 'epidemic'[26].

Further, the percentage in the current outbreaks that have a confirmed case of *B. pertussis* has not been disclosed – nor is the percentage reported that have a confirmed case of *B. parapertussis* or another organism that can cause whooping cough.

Eleventh, most of those who become severely ill or die do so because the current medical 'standard of care' is not only deficient but also sickness inducing as it does not seek to identify nutritional deficiencies nor does it automatically provide appropriate supplementation with: **a)** vitamin C to eliminate the "whoop", reduce coughing and shorten disease duration[27] and **b)** vitamin D-3 to enable the patient's own immune system to mount an effective defense that includes the production of the body's own site-specific polypeptide antibiotics[28] to check the "whooping cough"-causing organisms' overgrowth in the respiratory system without harming the beneficial flora present in the patient's gastrointestinal system.

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[25] Hanson MP, Kwan-Gett TS, Baer A, Rietberg K, Ohrt M, Duchin JS. Infant pertussis epidemiology and implications for tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccination: King County, Washington, 2002 through 2007. ***Arch Pediatr Adolesc Med*** 2011 Jul ; **165**(7): 647-652.

[26] http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6128a1.htm, a 20 July 2012 ***MMWR*** 2012 Jul 20; **61**(28): 517-522 article which is titled, "Pertussis Epidemic — Washington, 2012" (last visited on 26 July 2012) and which, among other things, states:

"Valid vaccination history was available for 1,829 of 2,006 (91.2%) patients aged 3 months–19 years. Overall, 758 of 1,000 (75.8%) patients aged 3 months–10 years were up-to-date with the childhood diphtheria and tetanus toxoids and acellular pertussis (DTaP) doses."

[27] Ormerod MJ, UnKauf BM, White FD. A Further Report on the Ascorbic Acid Treatment of Whooping Cough. Can Med Assoc J. 1937; 37: 268-272.

[28] **a.** Bals R, Wang X, Zasloff M, Wilson JM. The peptide antibiotic LL-37/hCAP-18 is expressed in epithelia of the human lung where it has broad antimicrobial activity at the airway surface. ***PNAS*** 1998 Aug 4; **95**(16): 9541-9546.

b. Gombart AF, Borregaard N, Koeffler HP. Human cathelicidin antimicrobial peptide (CAMP) gene is a direct target of the vitamin D receptor and is strongly up-regulated in myeloid cells by 1,25-dihydroxyvitamin D3. ***The FASEB Journal*** 2005 Jul; **19**(9): 1067-1077. doi: 10.1096/fj.04-3284com.

Twelfth, for children under 1 year of age, now that Thimerosal has been reduced in or removed from these vaccines, the "pertussis toxins", including the endotoxins that the pertussis components introduce, in the aluminum-adjuvanted, diphtheria, tetanus and pertussis (DTP) vaccines is probably responsible for the majority of the harm and deaths in this age group even though the Establishment uses terms like SIDS (sudden infant death syndrome), SBS (shaken baby syndrome) and SUID (sudden unexplained infant death) to avoid having to use the more appropriate acronym, DBV (death by vaccine), for many of the deaths in babies under 1 year of age that occur shortly after a DTP shot (typically within 21 days).

Supporting this conclusion is the reality that, *in Japan*, where the start of DTaP vaccination is often delayed until after the child is two years of age, infant mortality (2.78 per 1,000 as of 2011[29]) is less than half (45.7%) of the infant mortality rate in the USA (6.08 per 1,000 as of 2011[30]).

Further, while the initial 3-dose vaccination program using a DTP vaccine may have been cost-effective in the 1950s in the USA, clearly a now 6-plus-dose vaccination program with 5 doses of a DTaP vaccine (at a commercial wholesale cost of US $20.96 to US $23.65 per dose) followed by what appears to be up to 10 or more doses of a more expensive Tdap vaccine (at a commercial wholesale cost of US $37.55 or US $39.93 per dose) is clearly not cost effective even if the DTP vaccines worked as advertised – which they do not.

Finally, even the CDC recognizes that those who are not vaccinated or who are opposed to vaccination are not, *per se*, the "Causes" of cases of whooping cough[31].

Start of the Review of This Article's Content

"The great northwest of the U.S. is known for its natural beauty. It's also a high-tech region with a highly educated public – not exactly the kind of place one would expect to fall for the anti-science rhetoric of the anti-vaccine movement."

Here, this writer begins by initially stating that "*great northwest of the*

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29 http://www.indexmundi.com/g/g.aspx?c=ja&v=29, last visited on 24 July 2012.

30 http://www.indexmundi.com/g/g.aspx?c=us&v=29, last visited on 24 July 2012.

31 http://www.cdc.gov/pertussis/about/causes-transmission.html, web page was last updated on 11 July 2012; last visited on 24 July 2012 (emphasis added):

"Causes

Pertussis, a respiratory illness commonly known as whooping cough, is a very contagious disease caused by a type of bacteria called *Bordetella pertussis*. These bacteria attach to the cilia (tiny, hair-like extensions) that line part of the upper respiratory system. The bacteria release toxins, which damage the cilia and cause inflammation (swelling)"

U.S. …" is "*… a high-tech region with a highly educated public*" – a view with which this reviewer has no quarrel.

However, this reviewer finds that the writer's implicit assertion that the great northwest is "*not exactly the kind of place one would expect to fall for the anti-science rhetoric of the anti-vaccine movement*" is illogical because:

- *Accepting the validity of the writer's view that the public is "highly educated",*
- Then that *"highly educated"* public would be expected to be more likely to look into, and prove, the validity of any group's claims before accepting or acting on said claims, be they claims made by:
  - The CDC,
  - The American Academy of Pediatrics (AAP),
  - The American Academy of Family Physicians (AAFP),
  - The American Pharmacists Association (APhA),
  - The American Society of Health-System Pharmacists (ASHP),
  - The media,
  - The writer here or, for that matter,
  - This reviewer
- Before acting on any information to which this *"highly educated"* public was exposed.

Thus, the Salsberg's closing remark here, "*not exactly the kind of place one would expect to fall for the anti-science rhetoric of the anti-vaccine movement*", should be ignored because, *without any substantiation that supports the writer's view here*, the writer speaks of "*anti-science rhetoric*" that he again attributes to a non-existent "*anti-vaccine movement*".

To the extent that the residents of Washington State are "*highly educated*", then any "pertussis" vaccination decision on their part would be derived from their study of the scientific literature concerning:

a. The theoretical benefits of "pertussis" vaccination,

b. The percentage of those vaccinated who can expect to derive some protection and the probable duration of that protection,

c. The possible acute adverse effects associated with "pertussis" vaccination, including "crib death", sudden infant death syndrome (SIDS), shaken baby syndrome (SBS), sudden unexplained infant death (SUID), and permanent brain-damage-induced disability as well as the risk associated with each such outcome, and

d. The fact that the "pertussis" vaccines do not provide any significant protection from a *B. parapertussis* infection

as well as:

e. Their families' relevant medical history with respect to whooping cough, DTaP/DTwcP/Tdap vaccination, asthma, atopy and allergies, and prior adverse reactions to any of the components in the relevant vaccines,

f. The risks to themselves and their children or wards that are associated with having a "whooping cough" infection caused by *B. pertussis*,

g. The probable duration of the protection provided by having whooping cough, and

h. The facts that, *unlike inoculation with the current DTaP/DTwcP/Tdap vaccines*, having a *B. pertussis* infection and recovering from it has also been proven to:

1. Provide protection from *B. parapertussis* infection, and

2. Offer disease protection that lasts much longer than the protection from vaccination.

Given the preceding scientific realities, this reviewer is surprised that, *at a minimum*, those who are breastfeeding mothers, if not all parents, do not demand that the start of the DTaP vaccination be postponed until the child is at least one (1) year of age, if they elect to permit their child to be given any pertussis-component-containing vaccine at all.

"But it has. The anti-vaxxers have convinced a frighteningly high number of parents in Washington State to withhold vaccines from their children. A story in *The Seattle Times* last year reported that 'Washington [state] parents are choosing not to vaccinate their kindergartners at a rate higher than anywhere else in the country.'"

Ignoring the writer's unsupported, inflammatory rant in his initial statements, this reviewer again notes that:

IF the writer's view that the parents in Washington are *"highly educated"* is valid,

THEN, *because, as recent peer-reviewed published studies*[32,33] *have shown,* the more highly educated parents are likely to resist

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[32] Wei F, Mulloooly JP, Goodman M, McCarty MC, Hanson AM, Crane B, Nordin JD. Identification and characteristics of vaccine refusers. ***BMC Pediatrics*** 2009; **9***(*18*)*: 1–9.

[33] Omer SB, Salmon DA, Orenstein WA, deHart MP, Halsey N. (2009). Vaccine refusal, mandatory immunization, and the risks of vaccine-preventable diseases. ***New England Journal of Medicine***

blindly conforming to the vaccination schedule recommendations of the CDC and/or their doctors, the story that the newspaper reported supports the writer's view that Washington State parents are *"highly educated*".

Thus, the reality would seem to be that, as parents become more educated about the facts concerning vaccines and the current CDC-recommended vaccination program in the USA, these educated parents are increasingly "*choosing not to vaccinate*".

"This despite the fact that the Bill & Melinda Gates Foundation (formed by the founder of Microsoft, which is headquartered in Seattle) is one of the world's leading sponsors of vaccine research."

This reviewer first notes that the writer's statement here is apparently lacking an initial verb and suggests that the writer meant to state something to the effect that,

"*This" [is the case] "despite the fact that the Bill & Melinda Gates Foundation …*".

Second, this reviewer would ask, What should any foundation's sponsoring of "*vaccine research*" have to do with the informed vaccination decisions that *"highly educated*" parents make for their children?

Obviously, *to the extent that all parents have the right to make all vaccination decisions for themselves and their non-emancipated children and wards*, a foundation's "*vaccine research*" sponsorship should have nothing to do with the parents' vaccination decisions.

"When the vaccination rates drop, everyone becomes more vulnerable to infectious diseases."

Here, this reviewer simply notes that, no matter what the vaccination rate is, those who are truly immune to being infected/re-infected by a given disease organism do not become more vulnerable to that infectious disease.

In fact, re-exposure to the disease may actually boost the immune individuals' immune system's resistance to infection by that disease[34].

(NEJM) 2009 May; **360**: 1981–1988.

[34] In immunology, this process is formally characterized as "exogenous boosting" and is the mechanism attributed to the effective suppression of the recurrence of the varicella zoster virus (VZV) as shingles after an initial chickenpox infection in the centuries before there was any chickenpox vaccine. Given our current understanding of the early childhood illnesses, it is probable that the apparent long-term protection provided to those who have had a given disease and recovered from it was dependent to some degree on the exogenous boosting provided by subsequent cohorts of children contracting that disease and shedding it.

Further, even in populations where "*more than 90%*" of the people who can be vaccinated have been appropriately inoculated, whooping cough outbreaks have been documented[35].

Thus, the writer's unsubstantiated "*everyone*" generalization here is, at best, misleading.

"When more than 90% of the population is vaccinated, we have 'herd immunity' – this means the disease can't spread because there aren't enough susceptible people in the community. So the high rate of vaccine refusal in Washington makes it easier for whooping cough (and other diseases) to spread."

As the reference in footnote "**35**" has clearly established, recent outbreaks of whooping cough have occurred in Irish children aged 6 months to 4 years of age where, at 12 months, the schedule-complying vaccine uptake was "93%" of the children and, at 24 months, the schedule-complying vaccine uptake was "97%" of the children.

Obviously, in this instance, the disease spread in "fully" vaccinated children in spite of a vaccination level that exceeded the 90% level that this writer claims should have provided "*herd immunity*".

Further, the term "*herd immunity*" only applies to a given population in which the majority has: **a)** had a disease for which having that disease (e.g., measles) provides 'lifetime' protection (the definition of disease 'immunity') and **b)** managed to resolve that disease's clinical symptoms (recover).

Here, *at best*, *if the current pertussis-component-containing vaccines functioned as advertised* (which they do not), all that could be claimed is limited "herd protection" because "pertussis"-component-containing inoculations do not provide immunity to whooping cough and the limited protection, if any, that inoculation provide has been shown to rapidly decline[36].

Since the writer provides no substantiating citation that proves that the reduction in the level of vaccination for "pertussis" or any other disease is the "cause" of the increase in the disease incidence for whooping cough (or for any other childhood disease in Washington State for which there is a CDC-recommended vaccination schedule), this reviewer must dismiss the writer's last statement[37] as, at best,

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35 Barret AS, Ryan A, Breslin A, Murray A, Grogan J, Bourke S, Cotter S. Pertussis Outbreak in Northwest Ireland, January-June 2010. ***Euro Surveill.*** 2010; 15(35): pii=19654 (5pgs)

36 http://www.foxnews.com/health/2011/10/20/whooping-cough-vaccine-protection-fades-after-3-years/, last visited on 25 July 2012.

37 This obvious vaccine apologist's non-specific "*high rate of vaccine refusal*" phrasing in lieu of some sub

'empty rhetoric'.

Finally, this writer is intentionally distorting the reality that the parents make affirmative vaccination choices by cravenly characterizing each of these *"highly educated"* parents' legal right to make vaccination choices and timing decisions for themselves and their minor children and wards as if their decisions were "*vaccine refusal*" instead of what it is — *vaccination choice*.

"The media has been complicit in spreading some of anti-vaccine misinformation. Sometimes it comes straight from the media itself, such as the credulous, anti-science, anti-vax CBS reporter Sharyl Attkisson. Other times it comes from talk shows, magazines, or even airline advertisements that provide a platform for anti-vax celebrity doctors such as Jay Gordon (who gained fame as Jenny McCarthy's son's doctor) and "Dr. Bob" Sears, who has published his own "alternative" vaccine schedule in a book filled with anti-vaccine nonsense. These characters continue to claim, at every chance they get, that vaccines cause autism (as Gordon has said, repeatedly), or that they cause other harms, despite overwhelming evidence to the contrary. They use their medical degrees and their faux concern 'for the children' to frighten parents into keeping their kids unvaccinated."

Because Salsberg is unable to refute the facts presented by certain individuals, who simply provide science-supported information and/or offer alternatives for the parents to consider, he switches from: blaming the *"highly educated"* parents to: blaming specific individuals, including a mainstream media reporter and two medical doctors, which he recognizes as "*celebrity doctors*".

Without providing or citing any published substantiating documentation that supports his views, the writer uses derogatory and negative adjectives to characterize those whom he chooses to attack (e.g., "*credulous*" [meaning "gullible"?], "*anti-science*", and "*anti-vax*") or their statements (e.g., "*anti-vaccine*").

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stantiating citation here is an attempt to verbally inflate the significance of the level of vaccine uptake by those who do not adhere to the CDC's recognized vaccination schedule. [**Note:** This ploy reminds this reviewer of the opposite reality where vaccine apologists continue to state that the level of organic mercury in a Thimerosal-preserved vaccine is a "trace" level when the best estimates are that the 0.01% level of Thimerosal (0.005% level of organic mercury) still present in FDA-approved vaccine formulations being marketed in the USA and elsewhere is more than a factor of: **a)** "1,250" for adults and the elderly or **b)** "31,250" for developing fetuses and children higher than the level of organic mercury that has been shown to be "toxic" to those who are, directly or indirectly, exposed to such vaccines by vaccine injection (see the bottom of page 4 in the article posted at http://dr-king.com/docs/20120514_The_AnythingButMercury_Realities_b.pdf).]

If the "pertussis" vaccines worked as the misleading advertising to the public implies (where, simplistically: **a)** pertussis vaccination is called "immunization", **b)** pertussis vaccination is claimed to protect against "whooping cough", and **c)** *B. pertussis* exposure is implicitly the sole cause of "whooping cough"), then, "fully" vaccinated children would not be contracting "whooping cough" no matter what was the percentage of children that were not vaccinated at all.

Finally, the best evidence is that adult "pertussis carriers" ("Pertussis Harrys"), who have subclinical infections, are the principal source of infection for those who are too young to be vaccinated and are not being breastfed by their healthy, nutritionally competent, nursing mothers.

Further, in addressing the medical doctors collectively, he uses the term, "*characters*" (probably with the negative meaning of "somebody with an unusual or eccentric personality"?).

Vaccines Cause Autism and …

With respect to the writer's unsubstantiated assertion,

"*despite overwhelming evidence to the contrary*",

about the named doctors' claims,

"*that vaccines cause autism …, or that they cause other harms*",

this reviewer simply notes that, *except for those studies that are over-seen, directly funded, or otherwise controlled by the CDC and/or the vaccine makers and/or their associates, consultants and grantees*, the published, scientifically sound toxicity, case-control, and population statistics studies have clearly shown that the administration of Thimerosal-preserved vaccines (and, *to a much lesser extent*, the live-virus measles-mumps[38]-rubella [MMR] vaccines) to developing children does significantly increase the risk that some of the children inoculated with such vaccines will develop the abnormal neurodevelopmental symptoms that are collectively used to diagnose "*autism*".

In addition, toxicity studies in children who have been diagnosed with "autism" have found that:

a. When they are appropriately tested, many of the children with an "autism" diagnosis are mercury intoxicated (have a toxic body burden of mercury)[39];

b. The symptoms of mercury intoxication that result from injected Thimerosal match the symptoms that are used to diagnose

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[38] A recent *qui tam* lawsuit filed by two whistle blowers on behalf of the United States of America under the False Claims Act has revealed that since 1999, if not before, the vaccine maker Merck has apparently falsified the efficacy of the mumps component in its MMR II® and ProQuad® vaccines. See *USA ex rel. Krahling and Wlochowski v. Merck & Co., Inc.,* 2:10-cv-04374-CDJ as amended that was filed in 2010 in the US District Court for the Eastern District of Pennsylvania and amended on April 27, 2012, which has been unsealed so that the public may read and review the civil fraud being asserted by the realtors.

[39] **a.** Geier DA, King PG, Sykes LK, Geier MR. A comprehensive review of mercury provoked autism. ***Indian J Med Res*** 2008 Oct; **128**: 383-411.

b. Kern JK, Geier DA, Adams JB, Geier MR. A biomarker of mercury correlated with diagnostic domain specific clinical symptoms of autism spectrum disorder. ***Biometals*** 2010 Dec; **23**(6): 1043-1051.

c. Kern JK, Geier DA, Adams JB, Mehta JA, Grannemann BD, Geier MR. Toxicity biomarkers in autism spectrum disorder: a blinded study of urinary porphyrins. ***Pediatr Int***. 2011 Apr; **53**(2): 147-153.

d. Geier DA, Kern JK, Garver CR, Adams JB, Audhya T, Nataf R, Geier MR. Biomarkers of environmental toxicity and susceptibility in autism. ***J Neurol Sci***. 2009 May 15; **280**(1-2): 101-108. Epub 2008 Sep 25.

"autism" and the comorbid conditions (e.g., seizures, gastrointestinal disorders, muscle weakness, and incoordination) that many children with an "autism" diagnosis exhibit[40];

c. The level of mercury intoxication (as indirectly measured by a valid "urine porphyrin profile analysis") tracks the severity of the symptoms used to diagnose autism[41];

d. When interventions are implemented that reduce the children's body burden of mercury, the children's adversely affected systems improve[42]; and

e. The ratio of affected males to affected females with a diagnosis of autism is strongly shifted toward males in a manner that is very similar to the ratio shift seen in those diagnosed with mercury poisoning (see, for example, footnote "**40**").

With respect to the fact that vaccines "*cause other harms*", this reviewer suggests that the writer of this article and any reader of this reviewer's remarks simply read the package inserts for each of the approved vaccines (available online from the US Food and Drug Administration [FDA] and other Internet sources) and search the Vaccine Adverse Events Reporting System (VAERS) database[43], *jointly maintained by the CDC and the FDA*, for the time-correlated post-vaccination deaths, permanent disabilities, and other serious adverse reactions leading to hospitalization, which are reported in the VAERS database, a voluntary-reporting database.

In evaluating the results from a VAERS search, the reader should remember that generally *no more than* 10% of the actual number of the vaccination-related "adverse events" that occur each year are reported and, *for serious adverse events, like death*, the percentage reported is typically *not more than* 1% of the actual serious adverse events that occur each year[44].

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[40] Kern JK, Geier DA, Audhya T, King PG, Sykes LK, Geier MR. Evidence of parallels between mercury intoxication and the brain pathology in autism. ***Acta Neurobiol Exp (Wars)*** 2012; **72**(2): 113-153.

[41] **a.** Geier DA, Kern JK, Geier MR. A Prospective Blinded Evaluation of Urinary Porphyrins Verses the Clinical Severity of Autism Spectrum Disorders. ***J Toxicol Environ Health A***. 2009;72(24):1585-1591.

b. Geier DA, Kern JK, Garver CR, Adams JB, Audhya T, Nataf R, Geier MR. Biomarkers of environmental toxicity and susceptibility in autism. ***J Neurol Sci***. 2009 May 15; **280**(1-2): 101-108. Epub 2008 Sep 25.

[42] Geier DA, Geier MR. A Case Series of Children with Apparent Mercury Toxic Encephalopathies Manifesting with Clinical Symptoms of Regressive Autistic Disorders. ***J Toxicol Environ Health A***. 2007 May 15; **70**(10): 837-851.

[43] http://www.medalerts.org/vaersdb/index.php, last visited on 26 July 2012.

[44] Kessler DA, the Working Group, Natanblut S, Kennedy D, Lazar E, Rheinstein P, et al. Introducing MEDWatch: a new approach to reporting medication and device adverse effects and product

Further, this writer's closing statement,

"*They use their medical degrees and their faux concern 'for the children' to frighten parents into keeping their kids unvaccinated*",

is a classic example of misdirective Orwellian "Doublespeak".

Factually, *unlike the writer*, these medical doctors utilize their earned "*celebrity*" to inform the audience, whose trust they have earned, about their experience-based views on vaccines, 'vaccine covered' diseases, vaccination recommendations and other subjects.

Moreover, they seem to have a genuine concern for the health and well-being of the children and their parents.

In addition, the writer misuses the word "*faux*" that: **a)** is properly an adjective modifying concrete objects; and **b)** is not appropriate for use as a modifier for intangibles, like "*concerns*"[45].

Further, this reviewer is compelled to ask, "Who are these parents?"

Are they "*highly educated*" parents who study the available package inserts and published scientifically sound studies?

Or, are they the easily frightened parents who blindly rely on what others tell them, like the writer who is making this statement; and/or the information published by the CDC in its "Vaccine Information" statements; and/or the propaganda that permeates today's mainstream media when it comes to the current FDA-approved vaccines and the CDC-recommended vaccination schedule?

Based on this reviewer's understanding of:

- The DTaP, DTwcP, and Tdap vaccines,
- The current vaccination schedules for administering them,
- The limited level and duration of the protection that they may provide to the persons inoculated with them,
- The serious adverse events and significantly increased risks for certain chronic diseases that accompany the administration of any DTP vaccine before the child is one (1) year of age, and
- The failure of multiple doses, now at 7-plus doses[46], of these vaccines to effectively control the circulation of and infection

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problems. ***JAMA*** 1993 Jun 2; **269**(21): 2765-2768.

[45] The word "faux" means, *according to the simplified Encarta dictionary built into this reviewer's word-processing application* (with emphasis added), "made in imitation of a natural material such as leather or fur".

[46] If prophylactic vaccination truly were to provide "immunity" to a given childhood disease then no more than one (1) appropriately timed dose of an approved vaccine would provide protection from disease that endures for at least as long as the protection afforded by contracting that disease and recovering from it. For long-term protection from a childhood disease for which contracting that

by the human-infective *Bordetella species* that are a major "cause" of the disease "whooping cough" in the developed and the developing nations (but not the only causative organism),

all parents need to study the available scientifically sound literature on the "pertussis-component containing" vaccines and the "whooping cough" disease before making any decision as to when to give the first dose of any "pertussis" vaccine, how many doses to administer to themselves and their children, and with what other, if any, vaccine disease components these "pertussis" vaccines should be given.

"And now we learn that the U.S. is in the midst of the worst whooping cough epidemic in 70 years."

Of Whooping Cough and Epidemics

Based on the rhetoric that was used when "polio"[47] was at its peak in the early 1950s in the USA, today, a 'legitimate' national epidemic could be declared when: **a)** the reported clinical-case prevalence rate exceeds 1 disease case in every 3,000 residents (> 0.0333%, or, for a nation of more than 312 million residents today, more than 104,000 cases) and **b)** the number of disease cases appears to be increasing.

Accepting the preceding level of confirmed cases of whooping cough, the USA has not yet reached that threshold for a "whooping cough" epidemic.

Presuming that the resident population of Washington State is currently about 7 million, there is a local epidemic level of whooping cough because, as of July 21, 2012, the reported 3,180[48] cases of whooping cough exceeded the putative 1-in-3,000 (epidemic) thresh

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disease and recovering from it provides near lifetime immunity, no more than three (3) appropriately timed doses should be required to provide the equivalent-term protection from that disease. For vaccines that require more than three (> 3) doses to establish limited-term protection and the trend is toward the need for an ever-increasing number of "booster" doses of that vaccine, the recommendations for such vaccination programs for such vaccines should be withdrawn:

"*Insanity is doing the same thing over and over again but expecting different results*"

– generally attributed to Albert Einstein

47 "Polio" was redefined, in the mid-1950's, into three (3) "diseases" [i.e., aseptic meningitis, Coxachie viruses and paralytic polio]. It was this redefinition, which redefined more than 95% of the previous "polio" cases as "aseptic meningitis" cases, and not the polio vaccines, which stopped the "polio epidemic" in the USA.

48 http://www.cdc.gov/pertussis/outbreaks.html as of 25 July 2012 (emphasis added:

Recent Outbreak Activity

Localized outbreaks of pertussis are not uncommon and occur throughout the year. Some examples of pertussis activity in the US include:

- A pertussis epidemic was declared in Washington on April 3, 2012. There have been 3,180 cases reported statewide through July 21, 2012, compared to 230 reported cases in 2011 during the same time period. There were 965 cases reported statewide in 2011 compared to 608 reported cases in 2010. Visit the Washington State Department of Health for the most recent information.

old of about 2,300 cases by more than 36%.

In sharp contrast to these cases of whooping cough, using the CDC's "current" estimate (from a multi-site 2008 survey for children who were 8 years old) for the cluster of neurodevelopmental disorders collectively labeled "autism spectrum disorders" (ASDs), about 1 child in every 88 children is "currently" diagnosed with an ASD[49].

Given the writer's alarm over 1 case of whooping cough per 2,800 residents, this reviewer must ask:

> "Why is there no corresponding 'in the worst ASD epidemic in the history of the USA' **hue and cry** (public alarm) by our public officials or the mainstream media about 'autism'"?

Based on the reported percentage of children in Washington State's resident population (23.2%) and in the USA as a whole (23.7%)[50], the preceding information indicates that the estimated number of affected children with an ASD diagnosis ("1 in 88") exceeds 18,000 in the state of Washington and 840,000 in the USA.

Thus, even presuming that, *for the whole year*, the total number of "whooping cough" cases in Washington State will be more than double the reported "3,180 cases" (see, footnote "**48**") [or about 7000 cases], "*the worst whooping cough epidemic in 70 years*" will produce slightly more than half the acute "whooping cough" illnesses in 2012 than the about "13,000" cases of chronically ill children in Washington State who are 5 years of age or older and have an ASD diagnosis.

Yet, neither Salsberg and his fellow vaccine apologists, nor our public health or governmental officials, nor the mainstream media's star reporters are urgently reporting on this "autism epidemic" nor, *for that matter*, on the other current chronic childhood illness epidemics that dwarf the putative 2012 "whooping cough" epidemic in the USA (e.g., asthma, cancer, obesity, and type 2 diabetes, to name a few).

"One of the most hard-hit states is Washington, which the CDC just announced (on 20 July) has suffered 2,520 cases so far this year, a 1300% increase over last year. This is the highest number of cases reported in Washington since 1942. This plot of the number of cases this year compared to

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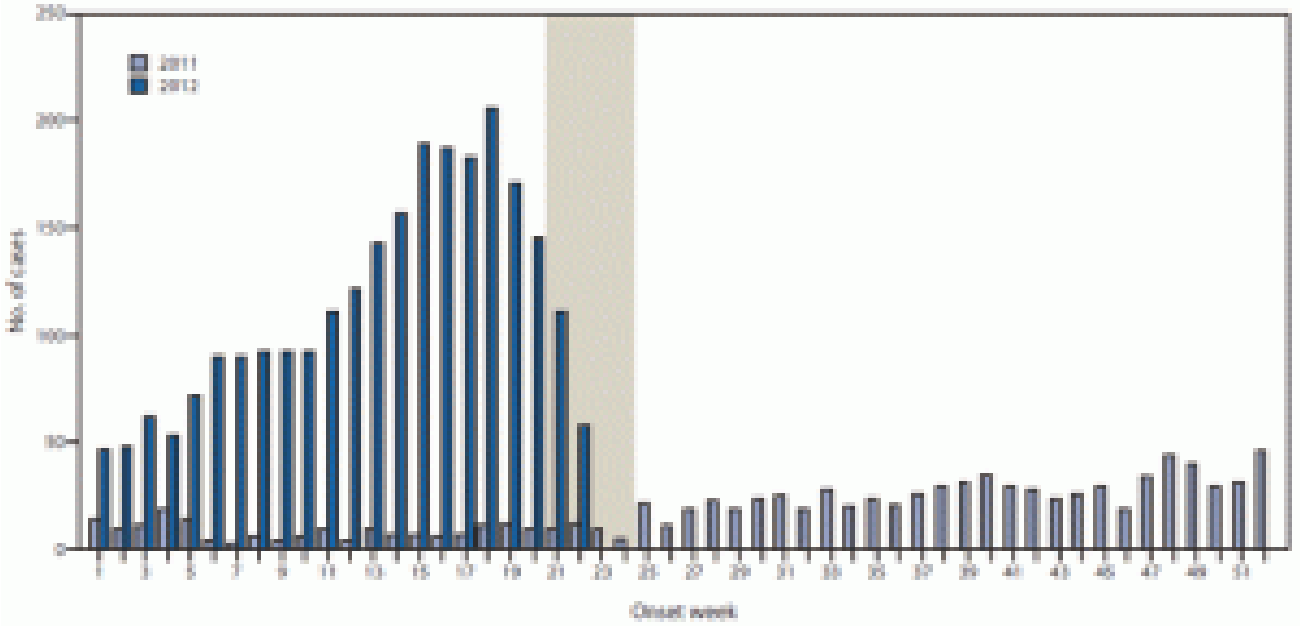
- Minnesota is experiencing high rates of pertussis in 2012. As of June 30, 2012, 1,758 cases have been reported statewide. 661 pertussis cases were reported in 2011. Visit the Minnesota Department of Health for the most recent information.
- High rates of pertussis are being reported in Wisconsin. As of July 16, 2012, 3,169 cases have been reported. During 2011, 1,192 probable and confirmed cases were reported. Visit the Wisconsin Department of Health Services for the most recent information.

[49] http://www.cdc.gov/ncbddd/autism/addm.html, last visited on 27 July 2012.

[50] Percentages taken from http://quickfacts.census.gov/qfd/states/53000.html, last visited on 27 July 2012.

last year shows the dramatic rise in infections:



The figure above shows the number of confirmed and probable pertussis cases reported, by week of onset in Washington, during January 1, 2011-June 16, 2012. The gray area shows weeks for which data is still incomplete. The right side of the plot shows cases for last year. Source: Morbidity and Mortality Weekly Report, U.S. Centers for Disease Control and Prevention."

First of all, this reviewer notes that, as of 25 July 2012, the CDC's reported number of cases is now 3,180 "compared to 230 reported cases in 2011 during the same time period" where there were "965 cases reported statewide in 2011" and "608 reported cases in 2010" (see footnote "**48**", first bullet).

Second, while this reviewer agrees that the year-over-year increase appears to be more than a factor of 10 and, with the new numbers reported in footnote "**48**", may be higher by a factor of 20, this reviewer notices that, in 2010, California reported 9,400 cases of "whooping cough"[51] but only 7,195 cases of "Pertussis" were listed in the CDC's "Summary of Notifiable Diseases" report for 2010[52], indicating that *B. parapertussis* may have caused 23-plus percent of the 9,400 cases[53].

In 2010, California was the vaccine apologists' obvious choice for

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51 http://www.cdc.gov/VACCINES/vpd-vac/pertussis/downloads/PL-dis-pertussis-bw-office.pdf.

52 http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5953a1.htm.

53 Presuming the data from the two CDC sources is valid, "*B. parapertussis*", against which the current vaccines provide no significant protection, accounted for up to 2205 of the 9400 reported "whooping cough" cases (23.46%). Thus, it seems that repeatedly vaccinating against *B. pertussis* is shifting infections caused by *Bordetella* species from the pre-vaccine ratio (where *B. parapertussis* infections were rare) toward the current state of affairs (where *B. parapertussis* infections apparently account for between 10% and 30% of all diagnosed clinical "whooping cough" infections). Obviously, continuing to inoculate with a pertussis-containing vaccine and increasing the number of doses will only accelerate the increase in "whooping cough" cases where *B. parapertussis* is the causative bacterium.

the 'poster child' for the "resurgence" of whooping cough because: **a)** it was the state that had by far the largest number of reported cases of whooping cough than any other state and **b)** it accounted for 26% of the total number of notified cases in the USA in 2010 though only about 12% of the population of the USA resided in California in 2010.

Ironically, in mid-2012, Washington State is the vaccine apologists' 'poster child' for whooping cough neither because it has reported by far the most cases of whooping cough nor because Washington State has the "*highest rate of infection in the nation*".

Actually, *according to the online article published by the CDC which can be accessed by "clicking on" the writer's embedded link (i.e., http://www.cdc.gov/pertussis/outbreaks.html)*, for the first part of 2012, Wisconsin had by far the "*highest rate of infection in the nation*". [See, the table reproduced below, which was copied from that embedded reference.]

Thus, at the writer's reference's time point, Wisconsin had the highest reported rate of infection ("50.7" per 100,000 as compared to the rate in Washington State ["39.2" per 100,000[54]]).

"States with incidence of pertussis the same or higher than the national incidence (as of July 5, 2012), which is 5.24/100,000 persons

Wisconsin	50.7	Utah	14.2	New York State	7.3
Washington	39.2	Maine	14.1	Illinois	6.7
Montana	32.7	Oregon	13.4	Pennsylvania	6.3
Vermont	23.7	New Mexico	11.7	Missouri	5.8
Minnesota	23.4*	Arizona	8.3	Idaho	5.7
Iowa	21.0	Colorado	8.2	Alaska	5.2

* Minnesota pertussis cases have not yet been reported through NNDSS and are not included in MMWR pertussis counts for 2012. This data was accessed from the Minnesota Department of Health web site".

Moreover, given the stated disease infection rates and an estimated 5.8 million Wisconsin residents[55], in June of 2012 Wisconsin also had a higher number of cases of whooping cough (~ 2900-plus cases) than Washington State (~ 2300 cases) had reported at that time.

Apparently, Washington State was selected as the 2012 'poster child' for "whooping cough" resurgence simply because it had the highest percentage of persons who, *for whatever reason (e.g., "highly educated")*, had chosen to forego CDC-schedule-compliant vaccination for themselves and/or their minor children and wards.

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54 http://www.cdc.gov/pertussis/outbreaks.html.

55 http://quickfacts.census.gov/qfd/states/55000.html.

Change the Paradigm to Vaccination Choice

Given the preceding realities and the CDC's misleading statements concerning "whooping cough" cases and causes, the residents of Washington State should repeal the laws that require them to get counseling on the benefits of vaccination and a healthcare provider's compliance-attesting signature before they can get a conscience-based exemption (philosophical or religious).

In addition, the residents of each state should change their vaccination laws so that Americans can no longer be coerced or brow beaten into allowing inoculations about which they have genuine concerns or be forced to pay for a healthcare provider consultation before they can exercise their otherwise permitted vaccination choice rights.

The revised laws should require that those who want a given vaccine for themselves or their minor children or wards to actively "opt in" to receive it for 'free' to all those who choose to "opt in" for whichever of the state-offered vaccines that the persons decide that they or their children or wards should receive.

For its part, each state, responsible for the health and safety of its residents, should only provide those vaccines to its residents for which the state has scientifically sound proof that said vaccines are:

a. Reasonably safe,

b. Effective in protecting more than "90 %" of those inoculated with them from contracting a clinical case of the disease for *not less than* 10 years; and

c. Medically or, *at a minimum*, societally cost-effective.

With this change in approach, **i)** all Washington State residents would be freed from the current coercive system, **ii)** those who want certain vaccines would get most of them for free or at low cost, and **iii)** the state would have an incentive to make certain it was not wasting healthcare dollars on vaccines or, *for multi-valent combination vaccines*, vaccine components that:

- Are not cost effective for national inoculation (e.g., the varicella [chickenpox] vaccines[56]), and/or
- *For whatever reasons*, are not truly effective in preventing disease (e.g., the "pertussis toxins" component in the diphtheria,

[56] Goldman GS, King PG. Review of the United States universal varicella vaccination program: Herpes zoster incidence rates, cost-effectiveness, and vaccine efficacy based primarily on the Antelope Valley Varicella Active Surveillance Project data. ***Vaccine*** 2012 May 31; http://dx.doi.org/10.1016/j.vaccine.2012.05.050

tetanus and pertussis combination vaccines, the current influenza vaccines, the current chickenpox vaccines, and the mumps component in the measles, mumps, and rubella combination vaccines), and/or

- Have not been proven safe enough for use in the developed nations, like the USA, much less the developing nations where the lack of sanitation, potable drinking water, adequate nutrition and housing combine to weaken the underlying health of the majority of those nation's children, (e.g., all of the Thimerosal-preserved vaccines, the HPV vaccines and the rotavirus vaccines).

"Making things worse, it seems, is an increase in cases among children aged 13-14. Children get a booster shot at age 11-12, but the new outbreak indicates that the effectiveness of the booster may not last very long. The dramatic increase in whooping cough this year also suggests that the bacterium that causes it, *Bordetella pertussis*, is mutating to make the vaccine less effective. Nevertheless, the CDC emphasizes:

'Vaccination continues to be the single most effective strategy to reduce morbidity and mortality caused by pertussis. Vaccination of pregnant women and contacts of infants is recommended to protect infants too young to be vaccinated.'"

"Pertussis" Vaccination is Not the Best Strategy for Addressing Whooping Cough

Since, *as Salsberg states and the CDC admits*, "*the bacterium …, Bordetella pertussis, is mutating to make the vaccine less effective*," the public needs to seriously consider the following facts.

First, the disease with which the residents of the USA are dealing is whooping cough, which can be caused by *B. pertussis* and by *B. parapertussis* or, rarely, by another biological agent — not just by *B. pertussis*.

Thus, we need to stop calling the disease "pertussis".

Moreover, the current vaccines:

- Do not activate the human innate (mucosal) immune system,
- Provide, at best, *de minimus* protection against an infection by *B. parapertussis*,
- Generate antibodies not to *B. pertussis* but rather to the inactivated pertussis toxin and the related toxic materials produced by *B. pertussis* that are included in the vaccine,
- Can create silent carriers ('Pertussis Harrys') who can then unknowingly spread *B. pertussis* for undefined times after they

receive each "pertussis containing" inoculation,

- As the writer and the CDC admit, cannot counteract the reality that one of the bacteria that can cause clinical cases of "whooping cough", *Bordetella pertussis*, "*is mutating to make the vaccine less effective*", *as all bacteria subject to environmental stress do*, and, *by suppressing the replication of B. pertussis*, is: **i)** increasing the level of circulating *B. parapertussis* and **ii)** the percentage of "whooping cough" cases where the infecting organism is *B. parapertussis*, and
- *Based on the delayed-vaccination experience in Japan*, delaying the start of "pertussis" vaccination until the children are about two (2) years of age seems to reduce the incidence of "whooping cough" in the younger children and to virtually eliminate SIDS (and SBS and SUDS) deaths,

this reviewer:

1. Cannot agree that the current "pertussis" vaccination program is "*single most effective strategy to reduce morbidity and mortality caused by pertussis*" and
2. Must oppose the vaccination of pregnant women because, as far as this reviewer can ascertain, there have been no scientifically sound and appropriate randomized, true-placebo-controlled reproductive toxicity studies to prove:
   - **a.** That vaccination of pregnant women is truly safe for the developing fetuses they are carrying; and *if safe*,
   - **b.** The specific stage in pregnancy for vaccination that is safest for the developing fetus; and
   - **c.** That inoculation with these Tdap vaccines has no adverse effect on any aspect of the pregnant women's future reproductive capability (e.g., fertility, fetal viability, risk of placental abruption, cervical/uterine/placental health and the ability to naturally carry a child to term) or the fetuses' developmental risks (e.g., viability, in-utero maturation, prematurity, umbilical cord prolapse, risk of placental abruption, birth defect, placental insufficiency and DNA alterations).

"This good advice is seriously undermined when misinformed doctors such as "Dr. Bob" Sears directly advise pregnant women not to get the whooping cough vaccine, as he did in the *Huffington Post*. (Hint: it's a good rule to be very skeptical of celebrity doctors who go by their first name.)"

Here, given the absence of the requisite scientifically sound and

appropriate reproductive toxicity studies[57] to establish the safety of giving pregnant women not a "whooping cough" vaccine but rather a Tdap (tetanus, diphtheria, and acellular pertussis) vaccine that delivers formaldehyde-denatured tetanus toxin (tetanus toxoid), formaldehyde-denatured diphtheria toxin (diphtheria toxoid), glutaraldehyde- and/or formaldehyde-denatured pertussis toxin (pertussis toxoid), and other toxic components[58,59], Salsberg, not "'*Dr. Bob' Sears*", is the misinformed doctor.

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[57] Dr. Marion F. Gruber, DVRPA/OVRR, CBER, FDA, DHHS. MEMORANDUM: POINT PAPER "PRECLINICAL REPRODUCTIVE TOXICITY STUDIES FOR VACCINES", dated September 17, 1998, text from the bottom of Point Paper's "page 2" through Point Paper's "page 4":

"Preclinical versus clinical experience with vaccines:

Clinical data that may have been obtained from a small number of pregnant women enrolled in non-IND studies immunized with an investigational vaccine do not replace the need for comprehensive reproductive toxicity studies.

However, clinical experience derived from immunization of pregnant women may be helpful in the evaluation of the potential for any adverse outcome on the viability and development of offspring. Such information may also aid in the design/monitoring of appropriate preclinical studies.

Design of reproductive toxicity studies

Males

The potential adverse effects on male fertility should be assessed if the vaccine indication includes the male population. This is particularly important for products that are given to military forces, e.g., the Anthrax and Botulinum toxoid vaccine. However, additional discussion will be required regarding the details of the types of studies needed for these products. The ICH S5B document may serve as guidance in the design of these studies (Reproductive Toxicology: Male fertility studies, April 5, 1996, FR 15360, Vol.61, No. 67)

Females

While the type of study performed depends on the clinical indication and the product, in general, relevant information can be obtained by conducting Segment II teratology studies and/or studies designed following stages C - E of the ICH guidance document entitled "Detection of Toxicity to Reproduction for Medicinal Products" (September 22, 1994, FR 48746, Vol. 59, No. 183)

It is important that a postpartum follow-up period be included in the design of the study, in order to evaluate the active immune response in the offspring following vaccination of pregnant females.

The reproductive toxicity study should be designed to include:

1) the detection of antibody production in the pregnant animal;
2) the feasibility of antibody transfer from the pregnant female to the fetus through antibody measurements in the newborn.

General Considerations

All available clinical experiences in pregnant females should be considered for any potential application to the design of reproductive toxicity studies in animals.

All data generated from prior acute or repeat dose preclinical toxicity studies should be reviewed for their possible contribution to the interpretation of any adverse developmental effects that appear in the reproductive toxicology studies.

Reproductive toxicity studies should include a dose response component in order to assess 1) tile ability of a certain dose of vaccine to elicit an antibody response and 2) the effect(s) that a particular dose has on the dam and on the conceptus.

The immunization interval and frequency of immunization(s) in a reproductive toxicity should be based on the clinically proposed immunization interval and its timing, i.e., use of the vaccine at pre-conception or during the 1st, 2nd and/or 3rd trimester.

Reproductive toxicity studies for vaccines similar in structure and/or activity to other compounds:

Although the reproductive toxicity potential of a "prototype" vaccine may have been assessed and the similarity between the "prototype" vaccine and a new investigational vaccine(s) may have been established in terms of the manufacturing process, product characterization and clinical safety, additional reproductive toxicity studies using the final clinical vaccine formulation may be necessary (e.g., 9 versus 11-valent pneumococcal conjugate vaccine; multivalent versus monovalent GBS vaccine). [Note that, in CDER, reproductive toxicology studies are usually performed for every new "molecular entity".]

Reproductive toxicity studies should be performed for all vaccines that belong to a similar class (e.g., polysaccharide vaccines), but which contain components derived from different organisms, or where different manufacture and/or purification procedures are employed.

Use of mercury containing preservatives in vaccines intended for maternal immunization:

The FDA Modernization Act (FDAMA) of 1997, Section 413 (c) (2), States that '… regulations shall be designed to protect the health of children and other sensitive populations from adverse effects resulting from exposure to, or ingestion or inhalation o[f] mercury.'

For investigational vaccines indicated for maternal immunization, the use of single dose vials should be required to avoid the need of preservative in multi dose vials as required by the Code of Federal Regulations (CFR). Of concern here is the potential neurotoxic effect of mercury especially when considering cumulative doses of this component early in infancy. All mercury-containing vaccine formulations should be evaluated in appropriate preclinical reproductive toxicology studies that include the assessment of postnatal behavioral and developmental endpoints (This topic is being addressed by the FDA-wide working group on mercury-containing drugs).

CBER/DVRPA:preparedbyMGruber(DVRPA) :8/17/98"

[58] From section "11" of the "package insert" labeling for Sanofi's Adacel® Tdap vaccine,

"Each 0.5 mL dose contains 5 Lf tetanus toxoid (T), 2 Lf diphtheria toxoid (d), and acellular pertussis antigens [2.5 mcg detoxified pertussis toxin (PT), 5 mcg filamentous hemagglutinin (FHA), 3 mcg pertactin (PRN), 5 mcg fimbriae types 2 and 3 (FIM)]. Other ingredients per 0.5 mL dose include 1.5 mg aluminum

Further, the recommended Tdap vaccines are not "whooping cough" vaccines because, while they may provide some protection from contracting a *B. pertussis* infection to some of those who are inoculated with them, the Tdap vaccines inappropriately recommended for administration to pregnant women do not provide protection from *B. parapertussis* infection which may be causing whooping cough in up to 30% of the cases in a given outbreak today.

Additionally, because the phrase "*whooping cough*" does not appear in the linked article cited by the writer[60] nor in any of the "Follow" links provided ("Health, Tdap Vaccine, Pertussis, Pertussis Vaccine, Tdap, Healthy Living News") in that article, it is clear that "'*Dr. Bob' Sears*" was speaking of "pertussis", "pertussis vaccines" and "Tdap vaccines" — not "*whooping cough*" when he stated:

> "On the other hand, the Tdap (or ANY pertussis vaccine for that matter) has NEVER been tested for safety during pregnancy. The vaccine product insert, as well as the letter I got from the pharmaceutical company, states very clearly that the vaccine is not indicated for pregnant women and has never been tested.
>
> So what right does the California Department of Public Health have to allow the use of an untested vaccine in pregnant women? I suppose they have every right. But it just doesn't feel right to me. New moms can get the vaccine right after their baby is born. Dads can get it during the pregnancy to get a head start. If the vaccine works so well, that should be good enough. Women don't need to get it during pregnancy.
>
> At least there's no mercury in the Tdap vaccine! But still, we have absolutely NO indication that this vaccine is safe during pregnancy. Parents beware."

Given the previous facts, this reviewer finds that the reader would be better served if he or she ignored the writer's "*Hint* ..." here.

"I should also point out that whooping cough is a national problem, not just Washington State's. The U.S. has had over 17,000 cases this year, putting it on track for the worst year since 1959. The highest rate of infection in the nation is in Wisconsin (which has also been hit hard by anti-vaccine effects), followed by Washington and Montana. 10 deaths have been reported, mostly in infants who were too young to be vaccinated. For all this, we can thank the anti-vaccination movement."

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phosphate (0.33 mg aluminum) as the adjuvant,≤5 mcg residual formaldehyde, <50 ng residual glutaraldehyde and 3.3 mg (0.6% v /v) 2-phenoxyethanol (not as a preservative)".

59 From section "11" of the "package insert" labeling for GlaxoSmithKline's Boostrix® Tdap vaccine,

"... Each antigen is individually adsorbed onto aluminum hydroxide. Each 0.5-mL dose is formulated to contain 5 Lf of tetanus toxoid, 2.5 Lf of diphtheria toxoid, 8 mcg of inactivated PT, 8 mcg of FHA, and 2.5 mcg of pertactin (69 kiloDalton outer membrane protein).

Tetanus and diphtheria toxoid potency is determined by measuring the amount of neutralizing antitoxin in previously immunized guinea pigs. The potency of the acellular pertussis components (inactivated PT and formaldehyde-treated FHA and pertactin) is determined by enzyme-linked immunosorbent assay (ELISA) on sera from previously immunized mice.

Each 0.5-mL dose contains aluminum hydroxide as adjuvant (not more than 0.39 mg aluminum by assay), 4.5 mg of sodium chloride, ≤100 mcg of residual formaldehyde, and ≤100 mcg of polysorbate 80 (Tween 80)".

60 http://www.huffingtonpost.com/dr-bob-sears/government-okays-untested_b_674147.html, last visited on 28 July 2012.

Ineffective Vaccine and Pertussis-related Deaths: The Hidden Vaccine Reality

With respect to the writer's statements here, this reviewer is glad to see that the writer recognizes that the "*national problem*" is the medical condition, "*whooping cough*".

Unfortunately, the writer's statements have clearly established that he wrongly believes that the terms "whooping cough" and "pertussis" are interchangeable.

With respect to the writer's "*on track for the worst year since 1959*", this reviewer notes that writer's view here is a biased comparison because the reported "40,005" cases[61] in 1959 occurred when the population of the USA was only about 176.5 million for an incidence of about 1 case for every 4,400 American residents.

Thus, even if the reported "*17,000*" cases for the first part of 2012 were to translate into "50,000" cases of whooping cough for the entire year, with a current population of about 312 million residents, the 2012 "whooping cough" case incidence (about 1 in 6250) would still be significantly less (about 30% less) than the case incidence in 1959.

With respect to the writers' "*10 deaths have been reported, mostly in infants who were too young to be vaccinated*", this reviewer notes that a search of the VAERS reports[62] through 13 June 2012 for deaths in children who: **i)** were under 1 year of age and **ii)** received a pertussis-containing vaccine produced "16" reports of death occurring in January through May of 2012.

Since VAERS is a voluntary, reporting system and, *typically*, *no more than* 10% of all the adverse events that occur are reported and, *for serious events, like death*, the reporting percentage has been found to be *no more than* 1%[63]:

1. The 16 reported deaths "temporally attributed" to a pertussis-containing inoculation in children under 1 year of age exceeded the "*10 deaths*" from whooping cough for all individuals by 60%, and the 24 pertussis-vaccination-associated deaths reported in

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61 CDC staff. Summary of Notifiable Diseases, United States, 1993. ***MMWR*** 1994 Oct 21; **42** (53): 1-73. See **Table 5**

62 http://www.medalerts.org/vaersdb/index.php search for the reported non-foreign serious pertussis-vaccine-component-related events in those under 1 year of age for 1961-2011 and part of 2012.

63 Kessler DA, the Working Group, Natanblut S, Kennedy D, Lazar E, Rheinstein P, et al. Introducing MEDWatch: a new approach to reporting medication and device adverse effects and product problems. ***JAMA*** 1993 Jun 2; **269**(21): 2765-2768.

VAERS in January through May of 2012 for all ages exceeded the "*10 deaths*" from whooping cough by 140%.

2. Based on: **a)** the recognized underreporting of adverse events to VAERS, **b)** the 16 reported deaths in those under 1 year of age and **c)** the total of 24 pertussis-vaccine-related deaths reported to VAERS in the first 5 months of 2012 for individuals of all ages, the probable total number of pertussis-vaccine-related deaths exceeds the total of "*10 deaths*" associated with whooping cough disease by more than a factor of 14 to 140 or more, and even if, *for example*, one-third of the reports of "death" to VAERS were determined to have not been caused by the pertussis component in the vaccine administered, the remaining 16 pertussis-vaccine-associated deaths would translate into 160 to 1600 pertussis-component-containing-vaccine-related deaths).

Thus, not only are "pertussis component"-containing vaccines less than effective in stopping cases of "whooping cough", especially those caused by *B. parapertussis*, but also, so far in 2012, their use has caused more deaths in those under 1 year of age than the number of individuals who have been reported to have died from whooping cough.

Therefore, as the Establishment is increasingly beginning to admit, the "pertussis" vaccine components:

a. Are not effective in preventing cases of whooping cough since it provides no protection from *B. parapertussis* infection (which is increasingly being diagnosed), and

b. Do not even provide intermediate-term protection[64] from a "pertussis" infection,

and, even though the Establishment suppresses this information,

c. The vaccination program annually results in the death of many more infants than those who die from "whooping cough".

To put things in perspective, in 1945, before there was a mass vaccination program for "pertussis", there were 133,792 cases of whooping cough in a population of 132.481 million residents[65] or about 1.01 case per 1,000 residents of the USA and the death incidence from whooping cough was roughly 1.3 per 100,000 residents of the USA

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[64] Here, "intermediate-term protection" means disease protection from contracting the disease for which the vaccine is claimed to provide protection that lasts at least 10 years.

[65] CDC staff. Summary of Notifiable Diseases, United States, 1993. ***MMWR*** 1994 Oct 21; **42** (53): 1-73. See "Table 6".

(or about 1720 deaths in all)[66].

In 2012, based on "*10 deaths*" in 17,000 cases in the "5 months" of 2012, a projected "74" pertussis-vaccination-related deaths estimated from the average of the VAERS-reported deaths from the previous 2 years (75, 74[67]) with a roughly "19%" reduction to "60" deaths to correct for instances where the vaccine was definitely or probably *not* a causal factor based on cursory review of the 2010 and 2011 pertussis-component vaccine-related VAERS reports of mortality, the ***projected*** total number of pertussis-related deaths from "whooping cough" disease and "pertussis" inoculation for 2012 is ~ 24 "whooping cough" deaths plus ~ 600 to 6000 pertussis-component-vaccination-related deaths or ~ 624 to ~ 6024 total deaths in a population of 312 million or between ~ 1 death per 500,000 to ~ 1 death per 51,800 residents (or ~ 0.20 to ~ 1.9$_3$ deaths per 100,000 population).

Thus, it would seem that all the "pertussis" vaccination program may have accomplished is to move the majority of the deaths from the "whooping cough" deaths to pertussis-vaccination-related deaths.

Moreover, if the reporting of vaccination-related deaths to VAERS is on the order of 1%, as former FDA Commissioner David A. Kessler, MD found for the reporting of serious adverse events (see footnote "**63**"), the current incidence level for pertussis-related deaths (from both "whooping cough" disease and "pertussis" vaccination) could actually be higher than it was in 1945 (before widespread childhood inoculation with pertussis-component-containing vaccines in the USA).

Finally, as this reviewer has clearly established, this writer's closing statement,

"*For all this, we can thank the anti-vaccination movement*",

is obvious false.

If anything, the current "whooping cough" resurgence must be attributed to: **a)** less-than-effective/ineffective vaccines, **b)** vaccines that have increased the human carriage level for pertussis in those who are vaccinated from the historical level of about "10%" at any given time before there were any pertussis vaccines to probably more than 90% in those who are vaccinated[68] and created a growing herd of

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[66] http://healthsentinel.com/joomla/index.php?option=com_content&view=article&id=2654:united-states-disease-death-rates&catid=55:united-states-deaths-from-diseases&Itemid=55, figure labeled, "United States pertussis (whooping cough) mortality rate from 1900-1967".

[67] http://www.medalerts.org/vaersdb/index.php, search for the total pertussis-vaccine-related deaths in 2010-2011 and January-May 2012.

[68] Dr. Mark R. Geier, personal communication. See also, Geier DA, Geier MR. The true story of pertussis vaccination: a sordid legacy? ***J Hist Med Allied Sci*** 2002 Jul; **57**(3): 249-284.

'Pertussis Harrys' who are continually shedding *B. pertussis*; **c)** an increase in the percentages of cases of whooping cough that are caused by *B. parapertussis*; and **d)** the vaccination-induced mutation of *B. pertussis* bacteria to strains that evade the disease-suppressive effects of the "pertussis" vaccines.

Increase in "Whooping Cough" Cases

The facts are that the current "whooping cough"-increase reality was created by a combination of factors, including but not limited to:

- "Pertussis" vaccines that do not protect any of those inoculated with them from "whooping case" illnesses caused by *B. parapertussis*.
- "Pertussis" vaccines that only provide short-term protection from *B. pertussis* infection to most of those inoculated with them but no protection to some who are fully inoculated (up to 25%).
- "Pertussis" vaccination has been shown to create silent carriers of *B. pertussis* where the percentage of those who may become *B. pertussis* carriers after vaccination is generally thought to exceed 90%, and the period of time that *B. pertussis* is carried is not known.
- "Pertussis" vaccination probably has: **i)** caused the development of "vaccine resistant" strains of *B. pertussis* as well as **ii)** increased the prevalence of *B. parapertussis* in the population of the USA.
- The "pertussis" components in the approved vaccines lack scientifically sound and appropriate carcinogenicity, mutagenicity, teratogenicity, and safety studies for each of the "pertussis"-containing vaccines. [**Note:** Most, *if not all*, of the safety studies for the current formulations of the "pertussis"-containing vaccines lack scientifically sound and appropriate safety assessments because the vaccine's safety was not established by comparing the vaccine's safety to the safety of a 'true placebo'[69] for acute (short-term) adverse effects and failed to include long-term follow-ups (having a duration of at least 10 years) that compared the observed long-term outcomes in at least 10,000 of those who

[69] For vaccines that are injected, a true placebo is a sterile, pH "7" buffered, isotonic saline solution containing glucose at a level equal to the level of the vaccine's antigens. For oral, topical and aerosolized vaccines, there is no need to include the glucose.

were vaccinated to the observed outcomes in a like number of those who were not vaccinated but rather received a true placebo.]

- The failure to have a medical standard of care for those who have whooping cough, which appropriately incorporates high-dose vitamin C treatment and uses appropriate levels of vitamin D-3 supplementation to treat this illness. In addition, there is a serious need for research into, and proactive counseling on, dietary and nutritional health as well as a diagnostic approach to medical condition that, after any required emergency procedures, establishes the nutritional and microbiological health of those who are ill and appropriately addresses the deficiencies found.
- The lethality of the endotoxic "pertussis" components to those who are inoculated with "pertussis"-containing vaccines probably causes hundreds to thousands of deaths each year along with thousands of other serious adverse reactions, all of which are effectively ignored by the Establishment's obviously flawed vaccine-centric approach to the prevention of whooping cough and its dietary-supplement-blind approach to the treatment of those diagnosed with whooping cough.
- The trend toward giving more vaccine components at once without adequate proof that such practices are safe and, as required by law[70], or that such practices truly decrease the vaccines' overall risks for causing, or contributing to, serious post-vaccination adverse events[71,72] along with increasing individual and parental resistance to the CDC's current recommended vaccination schedule.

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[70] **42 U.S.C. § 300aa-27(a)(2)**, which binds the Secretary of the Department of Health and Human Services to reduce adverse effects (emphasis added)

"(a) General rule

In the administration of this part and other pertinent laws under the jurisdiction of the Secretary, the Secretary shall -

(1) …

(2) make or assure improvements in, and otherwise use the authorities of the Secretary with respect to, the licensing, manufacturing, processing, testing, labeling, warning, use instructions, distribution, storage, administration, field surveillance, adverse reaction reporting, and recall of reactogenic lots or batches, of vaccines, and research on vaccines, in order to reduce the risks of adverse reactions to vaccines".

[71] A recent study that examined the number of vaccine actives given at once and the children's age, found a significantly increased risk of death and hospitalization when the number of vaccine actives administered during one visit to the healthcare provider increased from "2" to "8" (see footnote "**72**").

[72] Goldman GS, Miller NZ. Relative trends in hospitalizations and mortality among infants by the number of vaccine doses and age, based on the Vaccine Adverse Event Reporting System (VAERS), 1990-2010. ***Hum Exp Toxicol***. 2012 Apr 24. [Epub ahead of print]

Proposed Corrective Actions

Hopefully, all who read this review will understand the problems with the "pertussis"-containing vaccines as well as other vaccines and, in the USA, demand:

- At a minimum: **a)** the minimum age for the routine inoculation of any child born in the USA should be moved to the time that that child is maturationally one year of age; **b)** any recommendation to vaccinate at a age earlier than 12 months of age should be stricken from the CDC's vaccination recommendations, and **c)** any vaccine that is incompatible with this start-date relocation should be removed from the CDC's recommended vaccination list as well as from the "Vaccine Table" contained in the National Vaccine Injury Compensation Program (see **42 U.S.C. §§ 300aa-10** through **300aa-34**).
- The "pertussis" components should be removed from all vaccines given to the residents of the USA.
- VAERS should be converted to an active database where, under penalty of law, **i)** all post-inoculation adverse events must be reported to VAERS by the healthcare provider initially involved within 3 days of the occurrence of the adverse event, **ii)** the VAERS identifier should be recorded in any medical record associated with the adverse event's onset or progression until the adverse event is resolved or the patient dies, **iii)** a follow up report should be issued by the current healthcare provider every two months until the adverse event resolves or the patient dies, and **iv)** there should be significant monetary and professional (licensing) penalties for the failure of the healthcare provider(s) and the practice or institution(s) to file any required report within 7 days of its due date.
- The CDC/FDA should issue an annual "Summary of Notified Vaccine Adverse Events" report for the prior year for each licensed vaccine that is marketed in the USA within 15 months of the end of that prior calendar year.
- Vaccines that carry a CDC-recommendation for their administration to children under 10 years of age, pregnant women, and men and women who are of childbearing age should be supported by scientifically sound and appropriate reproductive toxicity studies that verify the safety of the CDC's recommen

dations[73].

- ❖ Similarly, for approved vaccines that lack scientifically sound and appropriate carcinogenicity, mutagenicity, teratogenicity and safety studies, the vaccine manufacturers should commit to, and conduct, such studies for each existing vaccine. For vaccines that have not yet been licensed or approved by the FDA, scientifically sound and appropriate carcinogenicity, mutagenicity, teratogenicity and safety studies should be conducted and establish that the vaccine presents no such risks[74] in the appropriate population segments before the FDA can license or, for existing vaccines lacking such studies, continue to license and approve those vaccines.
- ❖ For vaccines in which the manufacturer uses Thimerosal, as some "pertussis"-containing vaccines do, or any other mercury compound, in any step of the production process for the vac-

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[73] **Note:** For existing vaccines that currently lack these studies, recommendations for their administration to children under 10 years of age, and men and women of childbearing age should be allowed to remain on the market provided the manufacturer of each such vaccine commits to a scientifically sound and appropriate reproductive toxicity study and starts that study within 6 months of the day when the requirement for such studies becomes legally binding. However, any recommendations for the administration of vaccines to pregnant women that lack such scientifically sound and appropriate reproductive toxicity studies should be suspended until the requisite reproductive toxicity studies are conducted and establish that such vaccines are safe to give to pregnant women. As each reproductive toxicity study is completed or if, during any such study, toxicities are found, the affected FDA-approved indications must be removed and the CDC-approved recommendations for use must be amended to omit those groups in which such toxicity is found or indicated.

[74] For example, the polio vaccines administered to millions of Americans from the mid-1950s to some unproven cut-off date in 1972 contained varying level of a contaminating virus, SV-40 (the 40th simian virus identified in monkeys, which has been shown to be a causal factor for certain cancers (e.g., mesotheliomas), except for the vaccine apologists and acolytes who continue to question the evidence while accepting the non-existent proof that certain human papilloma viruses cause cervical cancer.

Concerning this reality, in a Congressional hearing held by the House of Representatives on September 10, 2003, Congressman Dan Burton stated:

> "But there is a major dispute as to how many Americans may have received the contaminated vaccine with estimates ranging from 4 million to 100 million. There is also a major dispute as to when the polio vaccine supply got cleaned-up. In addition, nobody knows how many people got sick or died because of the contaminated vaccines."

In addition, the released lots of the rotavirus vaccines, Merck's RotaTeq® and GlaxoSmithKline's (GSK's) Rotarix®, have been found by independent researchers to contain fragments of porcine DNA, which the vaccine makers had not disclosed as contaminants and the released lots of the human-papilloma-virus (HPV) vaccines, Merck's Gardasil® and GSK's Cervarix®, were independently found to contain previously undisclosed recombinant DNA fragments.

Finally, the FDA, in apparent disregard for its own labeling regulations that, without exception, require the composition of drugs for parenteral injection to be fully disclosed (**21 C.F.R. 201.100(b)(5)(iii)** [emphasis added] "... If it is intended for administration by parenteral injection, the quantity or proportion of all inactive ingredients, except that ingredients added to adjust the pH or to make the drug isotonic may be declared by name and a statement of their effect; and if the vehicle is water for injection it need not be named", has allowed Novartis to conceal the composition of the components in its meningococcal meningitis vaccine, MenVeo®.

In all of the preceding instances all of the requisite scientifically sound and appropriate carcinogenicity, mutagenicity, teratogenicity, reproductive toxicity and true-placebo-controlled safety studies have not been conducted.

cine formulation or the ingredients used in the formulation thereof, the vaccine manufacturer should be required to prove that a level of Thimerosal or other mercury compound that is 100 times the maximum level in a single vaccine dose is "nontoxic" to the most susceptible potential recipient. This safety requirement is necessary because the current mercury compound in such vaccines, sodium ethylmercurithiosalicylate, trade-named Thimerosal, is a bioaccumulative toxicant that, in those persons who are most susceptible to mercury intoxication, increases the risk of harm when they are inoculated with vaccines containing it[75].

Reviewer's Concluding Remarks

Finally, this reviewer wishes to thank Dr. Salsberg for his article on "whooping cough" because this reviewer's response will help its readers to: **a)** truly recognize the unscientific claims that were made in Salsberg's article; **b)** understand the true risk/benefit of pertussis vaccination; **c)** appreciate the crucial difference between the disease, whooping cough, and its most common causal bacteria, B. pertussis and B. parapertussis; **d)** recognize the facts about the other issues that Salsberg chose to raise in his article; and **e)** grasp what needs to be done to change the vaccination paradigm from today's increasingly restricted "opt out" reality to a science-based "opt in" medical choice.

End of This Assessment

Acknowledgements

For contributing valuable insights and providing their personal experience-based knowledge in various areas, this reviewer thanks Mark R. Geier, MD, PhD, David A. Geier, BA, and Gary S. Goldman, PhD.

In addition, this reviewer thanks Melissa R. Troutman, Catherine J. Frompovich, Neil Z. Miller, Susan Kreider and Lisa K. Sykes for their support, suggestions, corrections and alternative wordings, which have helped this reviewer to finalize his assessments.

[75] **Note:** The FDA should revoke the licenses of any such "pertussis"-containing vaccine that cannot meet this safety requirement. Further, no new vaccine or revised vaccine formulation whatsoever should be licensed and/or approved that fails to meet this requirement.

Postscript

Recent articles have suggested that the DTwcP vaccines were more effective than the current DTaP vaccines.

A quick review of the literature finds that, in the UK, the DTwcP vaccines were not effective in providing long-term protection from whooping cough just as today's DTaP vaccines are not effective, and "in children living in non-deprived circumstances in Britain, the risk of pertussis vaccine during the period 1970-83 exceeded those of whooping cough"[76].

Thus, today's ineffective DTaP vaccines are no less ineffective than the DTwcP ones were and they are safer based on the relative number of pertussis-related-vaccine-death reports attributed to each type of vaccine in VAERS[77].

For an in-depth review of the historical realities concerning the switch from DTwcP to DTaP vaccines in the USA, this reviewer suggests that those having an interest in this area should get a copy of the relevant article[78] that won the 2003 "Stanley W. Jackson Prize", which recognizes the best article published in the previous three years in the ***Journal of the History of Medicine and Allied Sciences***.

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[76] Stewart GT. Whooping cough and pertussis vaccine: a comparison of risks and benefits in Britain during the period 1968-83. ***Dev Biol Stand*** 1985; 61:395-405.

[77] In children under 1 year of age: During the 4-year period, 1997 through 2000, where 71.75 pertussis-vaccine-related deaths were reported on average (the range was 62 – 75) in VAERS when only the "DTaP"-containing vaccines were used as compared to an earlier 4-year period, 1991 through 1994, when only the "DTwcP"-containing vaccines were in use and, on average, 124.5 11.1(SD) pertussis-vaccine-related deaths were reported in VAERS (the range was 114 – 140).

[78] Geier DA, Geier MR. The true story of pertussis vaccination: a sordid legacy? ***J Hist Med Allied Sci*** 2002 Jul; **57**(3): 249-284.

About the Writer, Steven Salsberg, PhD[79]

"*Steven Salzberg is an American Biologist and Computer Scientist who since 2011 has been a Professor of Medicine and Biostatistics in the Institute of Genetic Medicine at Johns Hopkins School of Medicine*. From 2005-2011 he was the Director of the Center for Bioinformatics and Computational Biology at the University of Maryland, College Park, where he was also the Horvitz Professor of Computer Science. He was previously the head of the Bioinformatics department at The Institute for Genomic Research, one of the world's largest genome sequencing centers, and prior to that he was a computer science professor at Johns Hopkins University. *He graduated from Yale University in 1980 and received his Ph.D. from Harvard University in 1989*.

Dr. Salzberg together with David Lipman started the Influenza Genome Sequencing Project in 2003, a project to sequence and make available the genomes of thousands of influenza virus isolates[2][3]. He has been a leader in the field of gene finding and created the GLIMMER[4] program for bacterial gene finding as well as several programs for finding genes in animals, plants, and other organisms. He has also been a leader in genome assembly research and is one of the initiators of the open source AMOS project. He was a participant in the human genome project[5] as well as many other genome projects, including the malaria genome (*Plasmodium falciparum*) and the genome of the model plant *Arabidopsis thaliana*. In 2001-2002, he and his colleagues sequenced the anthrax that was used in the 2001 anthrax attacks. They published their results in the journal Science in 2002[6]. These findings helped the FBI track the source of the attacks to a single vial at Ft. Detrick in Frederick, Maryland.

Salzberg has also been a vocal advocate in favor of the teaching of evolution in schools in the U.S. and has authored editorials and appeared in print media on this topic.

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[79] Taken from Wikipedia (http://en.wikipedia.org/wiki/Steven_Salzberg) on 25 July 2012 (with emphasis [italics] added).

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About this Reviewer, Paul G. King, PhD

In addition to the general information available on his Internet web site, http://www.dr-king.com/, Paul G. King, PhD Analytical Chemist, is the Science Advisor to, and current Secretary for, the Coalition for Mercury-Free Drugs (CoMeD, Inc., a 501(3)(c) not-for-profit corporation with an Internet web site at 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 (DHHS) and the Commissioner of the FDA to comply with the statutes, laws (regulations) and policies that regulate the lawful conduct of the Secretary of the DHHS, the FDA commissioner and CDC and FDA official's. The second civil suit, 1:2009-cv-00015, is still being litigated.

In addition, 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 and state regulations that are not in the public interest or appear to be at odds with the law, reviewed numerous documents, and written articles on a variety of vaccine-related and other issues.

Finally, Dr. King has: **a)** provided diverse groups with his analysis of various Congressional bills, resolutions and treaty documents as well as federal and state judicial proceedings, **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 a range of chronic neurodevelopmental, other developmental and behavioral abnormalities that appear to be well-above (> 1 in 10 children; asthma), above (> 1 in 100 children; the autism spectrum disorders), at (> 1 in 1000 children; non-genetic childhood type 1 diabetes), or approaching (life-threatening peanut allergy) epidemic childhood levels in the USA and **c)** most recently, was the co-author of a paper that reviewed the United States universal varicella vaccination program and found that the current CDC-recommended vaccination program was neither effective in preventing those who are vaccinated from contracting chickenpox nor, *since it greatly increases the public's risk of having clinical cases of shingles*, cost effective for universal use (see, footnote "**72**").