

Miller's Review of Critical Vaccine Studies

**400 Important Scientific Papers
Summarized for Parents and Researchers**

Neil Z. Miller

**New Atlantean Press
Santa Fe, New Mexico**

Other Books by Neil Z. Miller

***Vaccine Safety Manual for
Concerned Families and Health Practitioners***

Make an Informed Vaccine Decision
(co-authored with Mayer Eisenstein, MD, MPH)

Vaccines: Are They Really Safe and Effective?

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ISBN: 978-188121740-4

Library of Congress Cataloging-in-Publication Data

Miller, Neil Z., author.

Miller's review of critical vaccine studies : 400 important scientific papers
summarized for parents and researchers / Neil Z. Miller.

p. ; cm.

Review of critical vaccine studies

Includes bibliographical references and index.

ISBN 978-1-881217-40-4

I. Title. II. Title: Review of critical vaccine studies.

[DNLM: 1. Vaccination. 2. Vaccines. 3. Biomedical Research. 4. Child.
5. Safety. QW 805]

RA638

614.4'7--dc23

2015025036

Cover photo: Bigstock

Printed in the United States of America

Published by:

New Atlantean Press
PO Box 9638
Santa Fe, NM 87504
www.new-atlantean.com

*This publication is dedicated
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Foreword

Gary Goldman, PhD

In modern times, unprecedented advances in the medical field — such as knee and hip replacements — have improved our quality of life. Emergency medical procedures have saved countless lives by restoring damaged or injured organs and tissues. When my three children were young, I believed that vaccines were a medical marvel as well, and they received their full complement of vaccines as prescribed by their physician according to the recommended vaccination schedule. So, when I was hired by the Los Angeles County Department of Health Services (*Acute Communicable Disease Control Unit*), to help conduct epidemiological studies of varicella disease in the local community known as Antelope Valley (which consisted of approximately 300,000 residences principally in Palmdale and Lancaster, California), I was thrilled to participate. I would be working at one of three active surveillance sites funded by the Centers for Disease Control and Prevention (CDC) to study the impact of the newly recommended chickenpox vaccine, which was just being introduced into the U.S. child population. It was 1995, and with enthusiasm I reflected on the prospect that data from this research project would not only be helpful to the community in which my family and I resided, but also provide insight into how the CDC formulates national policies in connection with the chickenpox vaccine.

I served as an Epidemiology Analyst. All positive results and trends that I reported were quickly reviewed and subsequently published in medical journal articles whose authorship honored CDC officials, physicians serving as the co-principal investigators, the project director, myself, and the data collection assistants. By the end of five years, after widespread varicella vaccination, our data demonstrated an 80% decline in varicella disease in the community. In addition, the chickenpox vaccine appeared to be safe. My performance reviews were outstanding and I was encouraged to contribute additional investigations that might lead to further publications.

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By the end of 1999, long-term nurses in local schools were reporting cases of shingles (herpes zoster) occurring among children where previously such case reports had been extremely rare. Based on this observation, I recommended that shingles be added to our active surveillance project. The shingles case reports should have been collected from the start of the project since both chickenpox and shingles are caused by the same varicella zoster virus. After experiencing a case of chickenpox, the virus remains dormant until the body's cell-mediated immunity declines to a certain low level at which point the varicella zoster virus can reactivate as shingles. Each time an adult is exposed to a child having chickenpox, the adult receives an exogenous (external) immune boost that helps suppress or postpone the onset of shingles, thus serving as a free and valuable benefit to the adult that could yield a protective effect lasting many years.

My observation of a relationship between chickenpox and shingles was not new. In 1965, Dr. Hope-Simpson, serving as a physician in Cirencester, England, studied herpes zoster among the local population. [*Proc R Soc Med* 1965; 58: 9-20.] He was the first to propose the hypothesis that the rates, or incidence, of shingles in each age group were perhaps due to that group's exposure to cases of chickenpox. Using approximate incidence rates, the rate of shingles among children aged 1 to 10 years and among adolescents aged 11 to 19 years were the lowest, because so many in these age groups contracted chickenpox and had frequent re-exposure to the disease. During adulthood, the incidence of shingles quadrupled by age 50, due to older adults' diminishing exposure to children with chickenpox. Thus, while shingles was primarily thought of as increasing with the onset of old age, in reality, shingles increased as adults experienced fewer contacts with children infected with chickenpox, which in turn caused a decrease in subclinical boosting. In a study of physicians who had frequent contact with children, findings demonstrated that the rate of shingles was one-fourth to one-eighth that of other adults in the same age-group in the general population that typically had less frequent exposure. [*Kansenshokagu Zasshi* 1995; 69(8): 908-12.]

After collecting two years of shingles case reports in the community, I observed that the incidence of shingles among unvaccinated children who had previously contracted chickenpox was unusually high, approaching the rate seen in adults. This was a foreboding result indicating that universal varicella vaccination could have the effect of increasing the incidence of shingles for a period of 50 or more years among adults who had a prior case of chickenpox — usually a benign case in their youth. Since about 25% of medical costs associated with the varicella zoster virus are due to varicella and about 75% are due to shingles, any increase in shingles would easily offset any cost benefit associated with a reduction in cases of chickenpox.

The CDC had justified its recommendation that all U.S. children receive a

chickenpox vaccine based on the cost savings to society attributed to parents not having to stay home from work to care for their child with chickenpox. Further initial cost/benefit assumptions that justified varicella vaccination included, 1) a vaccine cost of \$35, 2) one vaccine offering lifetime protection, and 3) no deleterious effects on the closely related shingles epidemiology. These assumptions all proved to be invalid. The current vaccine cost is approximately \$100, a two-dose vaccination policy was instituted due to the occurrence of breakthrough varicella disease (vaccinated children were still contracting chickenpox), and recent research on herpes zoster incidence supports Dr. Hope-Simpson's hypothesis that exposures to chickenpox have a protective effect to suppress or prevent the reactivation of shingles in adults. [*Am J Epidemiol* 2013; 77(10): 1134-42.] Instead of stopping the universal varicella vaccination of children in the U.S., the CDC added a second booster dose for children and introduced a shingles vaccine for older adults (who previously received boosts to their immunity at no charge by virtue of the annual outbreaks of chickenpox in their communities).

I prepared a paper for review and subsequent publication summarizing the first two years of shingles data. Such review was never forthcoming and I was instructed not to pursue any further investigation of shingles rates in the Antelope Valley. I did not want to become involved in research fraud, so I resigned after eight years of employment and sought to publish the other side of the research data that I felt was being suppressed. However, prior to having several papers published in the journal *Vaccine*, I received a notice from the Los Angeles County legal department to "cease and desist."

With the assistance of an experienced attorney, I overcame the CDC's objection that the data was confidential, and these studies were published. (Some of them are summarized in this book.) The CDC also improperly challenged the methodology that I used and results I derived. However, several years later they published a paper on herpes zoster using methodology similar to that specified in my papers that they had earlier criticized. The CDC presented herpes zoster incidence rates that closely compared to those I had published following my resignation. [*Vaccine* 2013 Mar 25; 31(13): 1683, Table 1.]

In marketing the varicella vaccine, the vaccine manufacturer used commercials highlighting that a child could die from chickenpox. The chance of this occurring is about the same as a child being struck by lightning. Unfortunately, vaccine research is largely financed by the pharmaceutical companies producing the vaccine or by health agencies that have conflicts of interest with these companies. (Studies that confirm such conflicts of interest are summarized in this book.) In addition, many CDC-sponsored studies, and other studies promoting vaccines, do not provide raw data to replicate the findings, which is a necessary component of science. Thus, published findings in medical journals and the positive claims associated with any

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given vaccine are often propaganda — one-sided promotions that fail to disclose any negative effects, which at times can be significant. For example, a recent paper by Hooker and Kern et al found evidence of malfeasance in CDC research purporting to show that thimerosal (a mercury-based preservative added to some vaccines) is safe. Although more than 165 studies examined thimerosal and found it to be dangerous, the CDC claims that it is safe and unrelated to autism. The CDC's claim that thimerosal is safe for use in vaccines and does not cause autism is based on just six studies that it sponsored. Four of the studies withheld important results from final publication and all of them are methodologically unsound. [*BioMed Research International* 2014; article ID 247218.] These tactics produce continual cycles of disease and treatment.

Following my work with the Los Angeles County Department of Health Services and the CDC, I continued to engage in vaccine research and discovered that my experience with the varicella vaccine was only the tip of the iceberg. In fact, if my children were born today, I would not permit them to be vaccinated. Vaccines with their associated adjuvants can cause serious long-term adverse effects in the form of autoimmune disorders and other chronic detrimental health conditions. Ongoing research continues to elucidate the complexities of the human immune system, providing an improved understanding of the biological mechanisms responsible for adverse vaccine reactions. In addition, the current childhood vaccination schedule is much more crowded than previous schedules, with infants receiving several vaccines during their pediatric well-baby visits. Multiple vaccines administered concomitantly may increase the risk of death. [*PloS One* 2011 Jan 26; 6(1): e16363; *Hum Exp Toxicol* 2012; 31(10): 1012-21.]

The National Library of Medicine has a multitude of studies that warn of these negative outcomes, including the possibility of vaccine-related fatalities which can sometimes be characterized as SIDS — sudden infant death syndrome. Detailed toxicological examinations of post-mortem brains and tissues, as well as other specialized investigations, have indeed documented vaccine-related deaths. Yet, there is a movement to make vaccination compulsory, removing all current vaccine exemptions, which will effectively eliminate the doctrine of informed consent, essential for the preservation of human rights.

Rising healthcare costs are, in part, the result of biased scientific research that supports an ever-expanding list of required vaccines that, in reality, have a negative cost and health benefit. Such vaccines create a life-long stream of income flowing into the healthcare system treating all of the people who experience adverse vaccine reactions. About 30,000 reports of suspected adverse vaccine reactions are filed with the U.S. government every year and more than \$3.1 billion has already been paid to compensate vaccine victims and their families.

Through independent analysis, it is possible to uncover the lies and deception emanating from the public relations propaganda produced by the vaccine manufacturers and healthcare institutions themselves. This book, *Miller's Review of Critical Vaccine Studies*, can assist the reader so that any decision to vaccinate or not is an informed one. The author, Neil Z. Miller, deserves high commendation for his boldness in providing research material in a format that can assist parents and other researchers in their investigation of vaccine truths while gaining a more circumspect understanding of tradeoffs associated with vaccine issues. This invaluable resource with its straightforward summaries of harmful effects that peer-reviewed published research on vaccines has revealed can positively impact the health and lives of millions of children, adolescents and adults.

Introduction

Many people sincerely believe that all vaccines are safe, adverse reactions are rare, and no peer-reviewed scientific studies exist showing that vaccines can cause harm. A more reasonable perspective, however, is that while vaccines may contribute toward enhancing immunity against contracting specific diseases, they also are responsible for causing autoimmune disorders and other detrimental long-term effects that are rarely disclosed. This book — *Miller's Review of Critical Vaccine Studies* — provides the other side of the story that is not commonly told. It contains summaries of more than 400 important scientific papers to help parents and researchers enhance their understanding of vaccinations.

The studies in this book do not support vaccine safety and effectiveness. Instead, they provide scientific evidence of risks and disadvantages, confirming adverse side effects or tradeoffs associated with vaccination. For example, the vaccine might decrease the likelihood of contracting a contagious ailment while increasing the odds of developing a neurological disorder, immunological injury, or coronary heart disease. In addition, allergies, seizures, diabetes and thrombo-cytopenia (a life-threatening autoimmune disease that causes internal bleeding) are more likely in vaccinated populations. Vaccinated children may also be trading a reduced risk of infections for an increased risk of cancer.

Most of the scientific papers summarized in this book are peer-reviewed studies published in medical journals indexed by the U.S. National Library of Medicine (the world's largest medical library). They include meta-analyses, systematic reviews of the scientific literature, randomized placebo-controlled studies, cohort studies, case control studies, case series, professional scientific commentary, and animal

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research. Nearly all of the studies provide crucial evidence of vaccine safety or immunity deficits.

Many of the studies summarized in this book were published in prestigious or high-impact journals such as the *Journal of the American Medical Association*, *New England Journal of Medicine*, *British Medical Journal*, *Annals of Medicine*, *Clinical Infectious Diseases*, *Emerging Infectious Diseases*, *Journal of Infectious Diseases*, *Journal of Internal Medicine*, *The Lancet*, *Pediatrics*, *Journal of Pediatrics*, *Pediatric Infectious Disease Journal*, *European Journal of Pediatrics*, *Vaccine*, *Epidemiology*, *American Journal of Epidemiology*, *European Journal of Epidemiology*, *International Journal of Cancer* and the *American Journal of Public Health*. Of course, this does not mean that studies published in highly-cited journals are more valuable than those published in lesser known journals. All studies must be scrutinized for potential strengths and weaknesses.

The scientific papers in this book are organized into 24 chapters. Each chapter contains several studies on a particular topic, such as aluminum adjuvants, pathogen evolution, sudden infant death, and healthcare workers who reject vaccines. Usually, there is one study per page although some pages contain two or three studies. At the top of each page is a headline. Next, there is a direct quote taken from the study. This is followed by the scientific citation. Finally, I use bullet points to summarize in my own words pertinent findings in the paper.

Many of the studies could have been included in other categories. For example, although there is a separate chapter on measles and MMR, there are numerous studies related to MMR in the chapters on allergies, seizures, thrombocytopenia, cancer, and vitamin A. If you are looking for information on a particular vaccine or subject that is not covered under a chapter heading, the index may be helpful.

Important findings from each scientific paper reviewed in this book are provided for quick reference and to counterbalance the many well-publicized studies touting the advantages of vaccination. I endeavored to remain free from bias at all times, with one caveat — my goal was to summarize studies that shed light on poorly publicized and unpopular aspects of vaccination. For readers with a scientific background, I included risk ratios, odds ratios, relative incidence and other statistical measures when p-values achieved significance. Confidence intervals can be found in the original studies.

Some of the summarized studies have favorable conclusions toward vaccines although actual findings in the paper are critical of vaccines. Authors of research papers often put a positive spin on studies with undesirable findings. Also, the findings in some of the summarized studies may conflict with those in other studies. There are many reasons why studies on the same topic might have contrary results. Studies may be poorly designed or conducted by researchers with conflicts of interest that bias their findings. This topic is discussed in the final chapter.

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I highly recommend reading the actual complete studies, which often contain supplementary figures, tables, data and discussions not included in my summaries. Some scientific papers are freely available from the medical journals that published them. Others are fee-based although an abstract of the paper is almost always available at no cost.

Studies that support vaccination are not included in this book. You can find supportive information by visiting official websites of the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), the World Health Organization (WHO), vaccine manufacturers, and by conducting your own search in medical journals. I encourage you to do your own careful research to better understand the benefits and risks of vaccination.

Neil Z. Miller
Medical Research Journalist

Vaccination Schedules

The four studies in this chapter investigated safety issues associated with recommended vaccination schedules. The first study analyzed the vaccination schedules of 34 developed nations and found a significant correlation between infant mortality rates and the number of vaccine doses infants receive. Developed nations that require the most vaccines tend to have the worst infant mortality rates.

The second study analyzed 38,801 reports of infants who had adverse events after receiving vaccinations. Infants who received the most vaccines concurrently were significantly more likely to be hospitalized or die, when compared to infants who received fewer vaccines concurrently.

The third study compared fully vaccinated children to under-vaccinated children (they did not receive all vaccines as recommended). Children who were under-vaccinated the most had the fewest visits to a healthcare provider for upper respiratory illness and significantly lower rates of outpatient and emergency department visits, compared to on-time, fully vaccinated children.

In the fourth study, scientists administered age-adjusted pediatric vaccines to baby monkeys according to the complete U.S. recommended childhood vaccination schedule. The vaccinated primates had abnormalities in the region of the brain affecting social and emotional development, and a significant increase in total brain volume. An accelerated increase in total brain volume between 6 and 14 months is a consistent finding for many children with autism.

1.

Developed nations that require the most vaccines tend to have the worst infant mortality rates

“These findings demonstrate a counterintuitive relationship: nations that require more vaccine doses tend to have higher infant mortality rates. A closer inspection of correlations between vaccine doses, biochemical or synergistic toxicity, and infant mortality rates, is essential.”

Miller NZ, Goldman GS. **Infant mortality rates regressed against number of vaccine doses routinely given: is there a biochemical or synergistic toxicity?** *Hum Exp Toxicol* 2011; 30(9): 1420-28.

- The U.S. requires infants to receive 26 vaccine doses, the most in the world, yet 33 nations have better infant mortality rates.
- This study analyzed the vaccination schedules of 34 developed nations and found a significant correlation between infant mortality rates and the number of vaccine doses infants receive. Nations that require the most vaccines tend to have the worst infant mortality rates.
- Linear regression analysis showed a high statistically significant link between increasing vaccine doses and increasing infant mortality rates ($r = 0.992$).

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- Developed nations that require the least number of infant vaccines tend to have the best infant mortality rates.
- Many third world nations have high vaccination rates (above 90%) and require their infants to receive a high number of vaccine doses but their infant mortality rates are poor.
- Infant mortality rates remain high in developing nations that cannot furnish clean water, proper nutrition, good sanitation, and better access to health care.
- There is evidence that a subset of infants may be susceptible to sudden infant death shortly after receiving vaccines. Some vaccine-related infant deaths may be reclassified by medical authorities as ordinary mortality concealing a link between vaccines and fatalities.

2.

Infants who receive the most vaccines have the worst hospitalization and death rates

“Since vaccines are given to millions of infants annually, it is imperative that health authorities have scientific data from synergistic toxicity studies on all combinations of vaccines that infants might receive. Universal vaccine recommendations must be supported by such studies. Finding ways to increase vaccine safety should be the highest priority.”

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; 31(10): 1012-21.

- This study was designed to determine a) whether infants who receive several vaccines simultaneously rather than fewer are more likely to be hospitalized or die, and b) whether younger infants are more likely than older infants to be hospitalized or die after receiving vaccines.
- This study analyzed 38,801 reports of infants who had adverse events after receiving vaccinations. The reports were accessed from the FDA’s Vaccine Adverse Event Reporting System (VAERS) database, 1990-2010.

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- Infants who received 6, 7, or 8 vaccine doses were significantly more likely to be hospitalized when compared to infants who received 2, 3, or 4 vaccine doses ($r^2 = 0.91$). Younger infants were significantly more likely than older infants to be hospitalized after receiving vaccines ($r^2 = 0.95$).
- Infants who received 5-8 vaccine doses were significantly more likely to die when compared to infants who received 1-4 vaccine doses (rate ratio, RR= 1.5). Vaccinated infants under 6 months of age were significantly more likely to die than vaccinated infants aged 6 months to less than 1 year (RR = 3.0).
- Male infants were significantly more likely than female infants to die after receiving vaccines (RR = 1.4).
- The safety of combining multiple vaccines during a single physician visit as recommended by CDC guidelines was never affirmed in clinical studies.

3.

Fully vaccinated children are significantly more likely to require emergency care than under-vaccinated children

“Children who were under-vaccinated because of parental choice had significantly lower utilization rates of the emergency department and outpatient settings — both overall and for specific acute illnesses — than children who were vaccinated on time.”

Glanz JM, Newcomer SR, et al. **A population-based cohort study of undervaccination in 8 managed care organizations across the United States.** *JAMA Pediatr* 2013 Mar 1; 167(3): 274-81.

- This study analyzed 323,247 healthcare records to compare children under 2 years of age who were fully vaccinated at CDC-recommended ages to children who were under-vaccinated (they did not receive all vaccines according to the recommended schedule).
- Children who were under-vaccinated the most had the greatest reductions in outpatient visits and healthcare utilization for upper respiratory illness, fever