From: bill teachingsmiles.com
Sent: 1/8/2025 6:50:42 PM
To: DOH WSBOH
Cc:
Subject: Fluoridation Review

External Email

Dear Patty Hayes, Chair Washington State Board of Health and Lauren Jenks,

I owe you both a huge thank you for starting a review of fluoridation policy, benefit, risk and costs.

After 15 years of pleading with the Board, you did hear us. Thank you.

However, I do have some reservations listed based on my memory of the meeting.

#1. ☐☐The "party" is restricted in the first sessions and I have not been invited, please invite me to all sessions (I'm free).

1.

☐☐☐☐I'm comfortable the Toxicologists are competent to review the toxicology literature. However, Lauren appears correct, Toxicologists do not look at benefit. A dentist opposed to fluoridation is essential on the committee "party" for a dental perspective on the lack of fluoridation benefit to expand the paradigm of dentists blindly or strongly promoting fluoridation.
2.

☐☐☐☐I'm NOT comfortable with the DOH dentist(s) having good knowledge on both sides of the dental scientific literature and objective open minds. I have tried in the past to meet with the DOH dental team and have not been permitted. They do not want to entertain any research which does not support fluoridation.

For example, the Dentists will raise probably three studies which do not report risk. The most recent,

by Do et al (2024) <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.1177%2F0022034
on fluoride and IQ has bias concerns, for example (Do 2022 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.iadr.org%2Fscience-policy%2Fposition-statement-community-water-fluoridation&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7
). Do 2024 did not have sufficient statistical power to detect harm with its small control sample of 68 children without fluoridation exposure and 83 with dental fluorosis.

I contacted Do and we had a nice email exchange. Then I asked him how many of the 68 children of the control were part of the 83 with dental fluorosis? He has not responded.

The U.S. National Toxicology Program (NTP) systematic review of fluoride's developmental neurotoxicity found harm in 30 of 31 high-quality human studies, some

from community water fluoridation (NTP 2024 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.22427%2FNTP-MGRAPH-8&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7C11d0e21>).

11.

11.

In contrast to the NTP-reviewed studies, Do (2024) did not measure individual-level total fluoride exposure or its best proxy, urine fluoride concentration. Do (2024) also did not measure prenatal fluoride exposure, a life stage sensitive to developmental neurotoxicity.

11.

11.

The study's analyses of IQ and dental fluorosis did not account for factors affecting dental fluorosis risk, including: total intake, exposure timing, genetic variation, metabolism, body weight, and nutritional factors [Alvarez 2009 <https://gcc02.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.medicinaoral.com%2Fmedora, Bhagavatula 2017 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.1111%2Fjphd.1226, Huang 2008 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.1111%2Fj.1600-0528.2007.00424.x&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057].

11.

11.

A second study is a lone outlier reporting an impossible 28 IQ point increase for boys (Ibarluzea 2022 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.1016%2Fj.envres.2>). If true, we would not see many boys/men in special education, incarceration, homeless, or out of work. Experts in court suggested redoing the lab work. Ibarluzea was asked to be a witness in court and refused.

11.

□□□□□The study by Broadbent did not have statistical power when fluoride supplements were included.

□□□□□Unfortunate trick dentists will do is to claim they are only talking about the fluoride from water and say things like, "There have been no studies of fluoridated water that found. . . . " Actually, there have been no studies which excluded fluoride from other sources. To do a study on just fluoridated water would probably be impossible because fluoride comes from many sources.

11.

□□□□□Toxicologists will have a difficult time asking the dentists the difficult dental questions and calling the dentist's bluff, assumptions, lack of science and attempting to get dentists to look outside their box evaluating benefit. The dental profession, ADA, advises dentists to support fluoridation or their license is in jeopardy. Yes, dentists lost their licenses because they openly objected to mercury fillings. They may not cause the license to be revoked for a position on fluoride, but they will discipline the dentist/hygienist for something simply to let them know who is boss. Loss of employment is serious, loss of license to never work in the profession again after 20+ years of education, is non-negotiable.

Why has the FDA not approved fluoride for ingestion? What are the RCT's of fluoride ingestion benefit?

1.

i.□□□□□Only RCT of fluoride ingestion reporting no statistical benefit. Leverett DH, Adair SM, Vaughan BW, Proskin HM, Moss ME. Randomized clinical trial of the effect of prenatal fluoride supplements in preventing dental caries. Caries Res. 1997;31(3):174-9. doi: 10.1159/000262394. PMID: 9165186.

And CDC: Ingestion of fluoride is not likely to reduce tooth decay CDC (1999). Achievements in Public Health, 1900-1999: Fluoridation of Drinking Water to Prevent Dental Caries. MMWR, 48(41); 933-940, October 22 and many more concerns with the lack of efficacy.

And "In summary, we hold that fluoridation is an unreasonable risk. That is, the toxicity of fluoride is so great and the purported benefits associated with it are so small - if there are any at all – that requiring every man, woman and child in America to ingest it borders on criminal behavior on the part of governments." Dr. J. William Hirzy, Senior Vice-President, Headquarters Union, US Environmental Protection Agency, March 26, 2001

ii. Consider the latest on benefit of fluoridation: The Cochrane Collaboration, a non-profit organization of 30,000 expert researchers and health professionals from around the world, is considered the gold standard of evaluating effectiveness of health interventions. Its latest (2024) <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Foralhealth.cochrane.org%2Fnews%
review-water-fluoridation-prevention-dental-
caries&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7C11d0
systematic review analyzed data from the 21 highest-quality studies. It found that fluoridation increased cavity-free results in primary (baby) teeth by only 4% and in permanent teeth by only 3%. [Not 60% reported when fluoridation started. Nor 25% claimed by the Board.] Neither result is statistically significant and include the possibility of no benefit at all. It also found no sufficient evidence that fluoridation benefitted low-income families.

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Foralhealth.cochrane.org%2Fnews%
review-water-fluoridation-prevention-dental-
caries&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7C11d0

Updated review: Water fluoridation for the prevention of dental caries
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Foralhealth.cochrane.org%2Fnews%
review-water-fluoridation-prevention-dental-
caries&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7C11d0

Authors: Iheozor-Ejiofor Z, Walsh T, Lewis SR, Riley P, Boyers D, Clarkson JE, Worthington HV, Glenny A-M, O'Malley L. Does adding fluoride to water supplies prevent tooth decay?
oralhealth.cochrane.org

1.

1.

iii. Cochrane results are consistent with the 2024 LOTUS study
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2
, the largest ever done – analyzing 6.4 million people in the UK's National Health Service, reporting 2% lower cavity rate in permanent teeth of adolescents and adults drinking fluoridated water – with "no meaningful reduction in social inequities . . ." It is also consistent with the Iowa Fluoride Study (IFS), funded by the National Institutes of Health, the most comprehensive research project in the U.S. The 2018 IFS study found no significant correlation between ingested fluoride and cavity reduction, further validating its 2009 study that stated "recommending an 'optimal' fluoride intake is problematic."

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2

How effective and cost□effective is water fluoridation for adults and adolescents? The LOTUS 10□year retrospective cohort study - Moore - 2024 - Community Dentistry and Oral Epidemiology - Wiley Online Library
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2

1 BACKGROUND. Permanent dentition caries, the most prevalent condition globally, results in extensive negative impacts for both individuals and society. 1 The first studies of initiation of community water fluoridation reported that it reduced the mean number of teeth affected by up to two-thirds. 2, 3 Fluoridation of drinking water is therefore justifiably recognized as one of the 20th ...
onlinelibrary.wiley.com

12.

i□□□

13.

□□□□The WSBOH/DH review committee must have experts on both sides of the controversy on the theory of dental benefit from fluoride ingestion.

14.

□□□□□Cherry picking believers of any subject to evaluate the subject will have a forgone conclusion. Fluoridation efficacy has been reviewed multiple times, all members chosen were believers and all conclusions the same.

15.

□□□□One study, the NRC 2006 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnap.nationalacademies.org%2Fcat in-drinking-water-a-scientific-review-of-epas-standards&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7C review of fluoride in water for the EPA included 3 of the twelve members who had published or written concerns on fluoride exposure, one dentist, one psychologist and one toxicologist and they had expressed reservations. The report did not agree with the EPA's maximum contaminant goal for fluoride. EPA ignored the committee's advice even though the vote was unanimous that EPA's MCLG was not protective.

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnap.nationalacademies.org%2Fcat in-drinking-water-a-scientific-review-of-epas-standards&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7C

Fluoride in Drinking Water: A Scientific Review of EPA's Standards <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnap.nationalacademies.org%2Fcat in-drinking-water-a-scientific-review-of-epas-standards&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7C

The National Academies of Sciences, Engineering, and Medicine are the nation's pre-eminent source of high-quality, objective advice on science, engineering, and health matters.

nap.nationalacademies.org

16.

□□□□Asking the Pope to gather the Cardinals to evaluate the virgin birth has a foregone conclusion. Asking all Chevy dealers what is the best truck has a foregone conclusion. Cherry picking like minded believers is not a forum, although, party maybe the best term.

17.

□□□□Lauren mentioned today that science is not inclusion, but a process. Yes, maybe for toxicology (although I'm not a toxicologist) because perhaps toxicologists are more statistically, mathematically, and research oriented and educated. Dentists are not. To evaluate a long held treasured public health policy (theory) and dental treasured belief, different skill sets are also required. Yes, a process, and with judgment.
18.

The second meeting, I understand, will be on TSCA and the Court trial. Dr. Taylor's report (one of the NTP authors) is essential, a must for reviewers, especially dentists and public health authorities to review. Presented in clear and precise terms.
https://www.healthandenvironment.org/che-webinars/96797
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.healthandenvironment.org%
webinars%2F96797&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057

Fluoride, Neurodevelopment, and Cognition: A National Toxicology Program Monograph from December 3, 2024.
19.

The third meeting on impact of CWF, I presume benefit and dental risks. Be sure to have committee members view the evidence which changed my mind:
https://youtu.be/rQHiIJLSujc
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fyoutu.be%2FrQHiIJLSujc&data=0

□□□□□a□□Drop Box
https://www.dropbox.com/scl/fi/pajvqu1k0a6usueh535q4/Fluoridation-Osmunson-9-2024-movie.m4v?rlkey=8dekyj3y5ah48sebe9vosrzsq&st=s8ro6tc7&dl

Please ask to have me included as a voting member on the committee/party.□No□cost.□

#2.□□□Lauren mentioned in the Board meeting today that there is a "signal" which should be investigated. A nice term for a freight train of evidence.

#3.□□□These meetings are a reasonable start. When will the cost-benefit-risk evaluation be reviewed? Consider: Community Water Fluoridation a Cost–Benefit–Risk Consideration - Osmunson - 2024 - Public Health Challenges - Wiley Online Library
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2

Community Water Fluoridation a Cost–Benefit–Risk Consideration
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2

A US Environmental Protection Agency funded study [] (1987), with fluoride concentrations between 1.0 and 4.0 mg/L, evaluated the cost of treating dental fluorosisfinding: "A mean cost for all consultants shows that the estimated costs for restoring function exceeds the cosmetic costs in all categories except the minimum later costs.
onlinelibrary.wiley.com

#4.☐☐☐When will the other health risks mentioned by the NRC 2006 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnap.nationalacademies.org%2Fcat in-drinking-water-a-scientific-review-of-epas-standards&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7C report of fluoride be reviewed?

#5.☐☐☐When will the total exposure from all sources be reviewed? Risk can only seriously be considered when total fluoride exposure, dose is understood. The NRC 2006 <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnap.nationalacademies.org%2Fcat in-drinking-water-a-scientific-review-of-epas-standards&data=05%7C02%7CWSBOH%40SBOH.WA.GOV%7Cbf5a7378eea7499089ac08dd3057f09a%7C is the best source of total fluoride to date. The Court added uncertainty factors and intraspecific factors of 10 and maybe 100. However, 1,000 is necessary to protect infants. The fetus is of even more serious concern.
Malin (2024) Maternal Urinary Fluoride and Child Neurobehavior at Age 36 Months - PubMed <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fpubmed.ncbi.nlm.nih.gov%2F387
Key Points Question Is prenatal fluoride exposure associated with child neurobehavior in a US-based sample? Findings In this cohort study of 229 pregnant women and their children, a 0.68 mg/L (ie, 1 IQR) increase in specific gravity-adjusted maternal urinary fluoride during pregnancy was associated with nearly double the odds of T scores for total child neurobehavioral problems being in the borderline clinical or clinical range. Meaning These findings suggest that prenatal fluoride exposure may increase risk of neurobehavioral problems among children living in an optimally fluoridated area in the USA.
Remember, during pregnancy a mother's bones (especially the third trimester) resorb to give the fetus calcium if not enough is absorbed in the diet. The osteoclastic activity releases stored calcium and fluoride which both go to the fetus. Fluoride does cross the placenta and can harm the developing fetus.
So much more.

#6.☐☐☐When will oversight jurisdiction and laws be considered? FDA, EPA, CDC, NSF, BOH, DOH, Legislature, etc? No Federal or State agency accepts jurisdiction over the dosage, safety, label, manufacturing, purity, and benefit of fluoridation and fluoride exposure.

#7.☐☐☐The Court and NTP both took 8 to 10 years. The Court 9 days of trial with very expensive experts, specialists in their field on both sides of the issue. The EPA expert agreed fluoride is a developmental neurotoxin but was uncertain about dosage. The judge asked, "what would it take for you to change your mind?" The expert responded, "1 or 2 more studies." We've had over a dozen since his inclusion.

#8.☐☐☐The 2015 workshop did not include the public, at least I did not know about it.

#9.☐☐☐Patty (or someone on the Board) asked about language from other authorities and I will get that and forward to you.

#10. And when you have time, what is the link to the Department's statement that fluoridated water should not be used to make infant formula?

Those are a few quick thoughts and I must quit for tonight.

Thank you for stepping out and reviewing fluoridation.

Bill
425.466.0100

_____

From: Bob Runnells
Sent: 1/10/2025 9:22:25 PM
To: DOH WSBOH
Cc:
Subject: Comments on Covid shot recommendation policy - corrected

attachments\6B1FAC9438DE47F1_SBOH Comments - R. Runnells 10Jan25.pdf

attachments\0F0C2ED9877D43E8_rhodes-parry-2024-pharmaceutical-_PRDTOOL_NAMETOOLONG.pdf

External Email

Hello,

Given the shortened time to speak at the Jan 8 meeting, I am submitting my comments in entirety for board records and for members to consider as the Covid Shot recommendations head closer to being withdrawn from the market.

There will come a time when they are withdrawn, so the DOH and the BOH should gather this information to explain to those who still have trust in your institution.

Please read the attached.

Regards,

Bob Runnells

Informed Choice Washington

Dear State Board of Health
Happy New Year

I'm Bob Runnells -
- a Director with Informed Choice Washington. We are in the 10th year of advocating for fully informed consent.

On November 6, 2024, the International Journal of Risk & Safety in Medicine published a well-cited article by Rhodes and Parry, medical professors from Australia, titled "Pharmaceutical product recall and educated hesitancy towards new drugs and novel vaccines" It illustrates pharmaceutical company fines and compares reports of death that occurred before various drugs and vaccines were finally withdrawn from the market.

The authors summarize their results as "Parallels with past drug withdrawals and gene-based vaccines include distortion of clinical trial data, with critical adverse event data absent from high-impact journal publications. Delayed regulatory action on pharmacovigilance data to trigger market withdrawal occurred with Vioxx (rofecoxib) and is apparent with the gene-based COVID-19 vaccines."

Their list of recalled products includes:

- a polio vaccine withdrawn after the Cutter Incident of 1955 with 10 deaths,
- Swine flu vaccine 1976, with 53 deaths,
- Diethylstilbestrol (DES) in 1975 with 214 deaths,
- Bextra, 2005, with 1,051 deaths in just one year
- Vioxx was on the market for 5 years before recall in 2004 after 6,639 deaths, with an underreporting factor of 5 to 9.
- And the Covid-19 vaccine, still on the market after at least 37,644 reports of vaccine-related death.

What can the DoH and this Board of Health do with this information? Can you depart of the CDC Recommendations?

Florida's Surgeon General acted on this distortion of the drug regulatory system. As of last September 12, their department of health said: **"Based on the high rate of global immunity and currently available data, the State Surgeon General advises against the use of mRNA COVID-19 vaccines."**
Citing many specific safety and efficacy concerns.

Other countries are discouraging the shots, and especially for youth. Other jurisdictions in the U.S. are doing so.

There will come a time when the Department of Health can stop recommending against the COVID-19 mRNA shots. This journal paper and other mounting evidence of contaminants from the manufacturing process and the general lack of uptake can help you justify dropping COVID shot promotion and recommendation.

Thank you,
Bob Runnells
Informed Choice Washington

Review Article

Pharmaceutical product recall and educated hesitancy towards new drugs and novel vaccines

International Journal of Risk & Safety in Medicine
2024, Vol. 35(4) 317–333

DOI: 10.1177/09246479241292008
journals.sagepub.com/home/jrk


Peter Rhodes[1,2] **and Peter I Parry**[3,4]

Abstract

Background: Of many pharmaceutical products launched for the benefit of humanity, a significant number have had to be recalled from the marketplace due to adverse events. A systematic review found market recalls for 462 pharmaceutical products between 1953 and 2013. In our current and remarkable period of medical history, excess mortality figures are high in many countries. Yet these statistics receive limited attention, often ignored or dismissed by mainstream news outlets. This excess mortality may include adverse effects caused by novel pharmaceutical agents that use gene-code technology.

Objective: To examine key pharmaceutical product withdrawals and derive lessons that inform the current use of gene-based COVID-19 vaccines.

Methods: Selective narrative review of historical pharmaceutical recalls and comparative issues with recent COVID-19 vaccines.

Results: Parallels with past drug withdrawals and gene-based vaccines include distortion of clinical trial data, with critical adverse event data absent from high-impact journal publications. Delayed regulatory action on pharmacovigilance data to trigger market withdrawal occurred with Vioxx (rofecoxib) and is apparent with the gene-based COVID-19 vaccines.

Conclusion: Public health requires access to raw clinical trial data, improved transparency from corporations and heightened, active pharmacovigilance worldwide.

Keywords

conflict of interest, COVID-19, clinical trials, drug-related side effects and adverse reactions, messenger ribonucleic acid vaccines, pharmaceutical industry, pharmacovigilance, safety-based drug recalls

Received: 30 March 2024; revised: 15 August 2024; accepted: 5 September 2024

All pharmaceutical products are continuously experimental, observed and tracked by pharmacovigilance systems worldwide.[1]

Introduction

Strong science, characterised by open mindedness, objectivity, curiosity and freedom of debate, can be corrupted by capitalist opportunism, deception, political ideology and censorship. Regulatory protections are required for good science to flourish. Corporate enthusiasm and authoritarian policy directives, such as vaccine mandates, must be balanced with humane medical ethics and protection of individual autonomy.

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The global pharmaceutical industry has grown in recent decades and now represents one of the most valuable in the world. Revenue of the worldwide market in just 2 decades has risen from 390 billion USD (2001) to 1482 billion USD (2022).[2]

New additions to the global marketplace appear with entrepreneurial enthusiasm. Yet withdrawals of these products are also significant. In the last 7 decades, from 1953 onwards, more than 462 medicinal products have had to be recalled from sale because of adverse drug effects that frequently include fatalities. The median interval between the first reported adverse reaction and the year of first withdrawal for a drug is 6 years (IQR, 1–15).[3]

Globally, whether drugs are recalled or not, pharmaceutical industry violations have become a multibillion-dollar industry of litigation, legal fees, and court penalties. Some of the most impressive corporate criminal trials include[4]:

- **Cardinal Health, McKesson, AmerisourceBergen, Johnson & Johnson (2022)**, inappropriate opioid prescription, addiction crisis, settlement of $26 billion USD;
- **GlaxoSmithKline (2012)**, unlawful promotion of Paxil (paroxetine), Wellbutrin (buproprion) and Avandia (rosiglitazone), and failure to report safety information, settlement of $3 billion USD;
- **Eli Lilly, Takeda Pharmaceuticals (2015)**, concealment of data on carcinogenicity of Actos (pioglitazone), settlement of $2.4 billion USD;
- **Pfizer (2009)**, false promotion of Bextra (valdecoxib) tablets, Geodon (ziprasidone) capsules, Lyrica (pregabalin), and Zyvox (linezolid), payment of financial kickbacks, submission of false claims to government, illegal drug promotion, settlement of $2.3 billion USD;
- **Johnson & Johnson (2013)**, misbrand of antipsychotic drug Risperdal (risperidone), payment of financial kickbacks, settlement of $2.2 billion USD.

Direct to public commercials in the USA for legal support are now widespread, e.g.[4]:

> "Call a Dangerous Drug Attorney at O'Connor, Acciani & Levy.
>
> If you believe you were harmed after using a certain pharmaceutical product, call a skilled dangerous drug attorney for help in starting a personal injury claim."

In this selective narrative review, our goal is to consider some of the milestones in drug recall from the market, litigation for, and republication of, hidden data, and potential lessons that may be learnt. We assess recall of various pharmaceutical agents, proven over time to be monumental events. In particular, we focus on the cases of Merck's Vioxx (rofecoxib), and the new gene-based COVID-19 vaccines.

Results

Diethylstilbestrol (DES)

Marketed widely in the 1950s and 1960s, diethylstilbestrol (DES) (Eli Lilly), prescribed by the medical profession for prevention of miscarriage, led to extensive harm that would prove fatal for some and would span generations. Supplied to millions of pregnant women over 3 decades, DES became the first identified cause of "prenatal drug-induced cancer in humans". The drug was recalled in 1971. The full intergenerational impact of these prescriptions is still not known.[5]

Thalidomide

Thalidomide is one of the saddest chapters in pharmaceutical history and an example of how premature safety claims can have tragic consequences. Created as a sedative and marketed in Germany in 1957 by Chemie Grünenthal, thalidomide would soon be launched in the UK (Distillers, UK), and many other countries would follow. At this stage, the first thalidomide-affected baby had already been born in Germany, 25 December 1956, to a Chemie Grünenthal employee. By 1958, thalidomide was licensed and promoted in the UK as a "wonder drug" to treat headaches, insomnia, and nausea in pregnant women – advertisements emphasised safety, with catch phrases such as "non-toxic" and "no known toxicity".

The first publication to link thalidomide and birth defects appeared in 1961 in *The Lancet*, as a letter from an Australian, William McBride.[6] This same year the drug was formally withdrawn in Germany and in the UK, the Thalidomide Society was established in the UK, and efforts began to secure compensation for victims. In 1968, Chemie Grünenthal was brought to trial in Germany, charged with intent to commit bodily harm and involuntary manslaughter, but in 1970 this trial was ended prematurely by the German government, who stated that it was "not in the public interest".[7]

Efforts have continued in the UK to secure compensation from the 1970s through to the present. It was only on 29 November 2023 that the Australian Prime Minister announced a "formal national apology to all Australians impacted by the Thalidomide Tragedy", more than half a century on from the earliest harms.[8]

Through the diligent work of FDA scientist Frances Kelsey, who demanded further safety trials prior to market authorisation, thalidomide was never approved for release in the USA. She protected an entire nation.[9]

Paroxetine

The Selective Serotonin Reuptake Inhibitor (SSRI) antidepressant, paroxetine, became a very successful commercial product for SmithKlineBeecham (SKB) (later GlaxoSmithKline, GSK). In the late 1990s, the company conducted two randomised, controlled trials in adolescents with depression (Study 329 & Study 377). Company documents, subpoenaed through litigation, reported that Study 377 "failed to demonstrate any separation from placebo" and consequently the company had "no plans to publish data from Study 377". Study 329 showed "trends in efficacy" but the differentiation from placebo "was not statistically significant".[10] This Study 329 was ghost written and then published by Keller and 21 co-authors in 2001, with the conclusion that paroxetine was "generally well tolerated and effective" for adolescents with depression.[11] Although SKB/GSK decided not to present the studies' data to the FDA for a label change to treat adolescent depression, they used the Keller et al. publication to promote off-label prescriptions for depressed teens. Later, independent researchers gained access to raw data from Study 329 and found increased suicidality and no significant efficacy.[12] Despite calls for retraction of the original Study 329 publication, the *Journal of the American Academy of Child and Adolescent Psychiatry (JAACAP)* has refused to do so.[13]

GSK suppressed negative data about their drug paroxetine and effects on depression and suicide. An internal GSK document advised staff to withhold data that indicated paroxetine had no beneficial effect in adolescents.[14] In 2012, GSK pleaded guilty to fraud allegations and failure to report safety data, with payment of $3 billion in criminal fines, the largest fraud settlement in US history at the time.[15]

There have been further disputes over the increased suicidality caused by SSRIs in adolescents and young adults, with calls to remove the FDA Black Box label. However, both Study 329 data re-analysis[13] and separate further data support continuation.[16]

This GSK paroxetine chapter is by no means an isolated case of hidden data. In 2015, Eli-Lilly and Takeda Pharmaceuticals were fined $2.4 billion USD for concealment of the carcinogenic effects of pioglitazone (Actos).[17]

Avandia (rosiglitazone)

Avandia (rosiglitazone) gained FDA approval for management of diabetes in May 1999 and was widely prescribed for control of blood glucose, until it was shown to increase risk of myocardial infarction by 43% and increase risk of death from cardiovascular causes by 64%.[18] In May 2007, Steven Nissen of the Cleveland Clinic published controlled trial data that showed, in the rosiglitazone group, as compared with control, the odds ratio for myocardial infarction was 1.43 (95% confidence interval (CI), 1.03 to 1.98; $p = 0.03$), and the odds ratio for death from cardiovascular causes was 1.64 (95% CI, 0.98 to 2.74; $p = 0.06$).[19]

In July 2007, a panel of FDA advisers voted 22 to 1 against removal of Avandia from the marketplace. As late as 2009, GSK continued with promotion of Avandia as "safe and free from cardiovascular side effects".[20] In contrast, by February 2010, a US senate finance committee was able to conclude that GSK had "full knowledge of the cardiac risks of Avandia in late 2004 or early 2005". David Graham, FDA scientist, has estimated combined US heart attacks, strokes and deaths caused by Avandia to be in the order of 100,000 events.[21] The drug was removed from the European market in September 2010, based on cardiovascular risks, and remains banned to this day.

Pursuit of surrogate end points can be dangerous, exemplified here with a focal target of blood glucose control, yet accompanied by significant adverse events.

While such corporate products and medical prescriptions as diethylstilbestrol, thalidomide, paroxetine and rosiglitazone are now infamous chapters in medical history, still greater events loom over more recent history, and we consider two of these, Merck's Vioxx (rofecoxib) scandal, and the roll out of gene-based COVID-19 vaccines.

Vioxx (rofecoxib)

Developed by Merck, the cyclooxygenase-2 (COX 2) inhibitor Vioxx (rofecoxib) marketed as a non-steroidal anti-inflammatory drug (NSAID) for pain relief in 1999, obtained FDA approval (21 May 1999) based on equivalence to other

NSAIDs in short term use. Efforts to explore long term value in rheumatoid arthritis further supported sales, with fewer gastrointestinal side effects when compared with typical NSAID naproxen.[22]

In this VIGOR paper,[22] Merck concealed adverse cardiovascular events in the Vioxx arm of the study that would prove to be a serious statistical signal. Just prior to publication, Merck informed the FDA of three adverse cardiovascular events, published on an FDA website, but *The New England Journal of Medicine (NEJM)* article was neither retracted nor corrected.

The full VIGOR data unmasked high rates of cardiovascular events with Vioxx (rofecoxib) compared to naproxen, with a relative risk of 2.38 (95% CI 1.39–4.00) for rofecoxib against naproxen over a 12-month study period.[23] The time lag between initial FDA approval and the appearance of this more complete VIGOR trial data in print was over 18 months.

Initial responses to this data from Merck included claims that naproxen had a protective effect against heart attacks and strokes, that was not possessed by Vioxx, and that the increased cardiovascular risks seen with Vioxx occurred only in people with known cardiovascular disease.[24] This was later found to be untrue, once data for healthy individuals who had suffered harm on Vioxx had been uncovered.

Merck tried to influence lead American physicians with support and finance for research, and they defamed, withdrew support, and tried to discredit or "neutralise" those who failed to promote use of Vioxx, a matter uncovered by the Federal Court in Melbourne, Australia.[25] In contrast, the Chair of the Study Data and Safety Board (SDSB) for the study, Michael Weinblatt, owned $72,000 in Merck stock and was on a $60,000 contract for 12 days' work for the company.[26]

Internal Merck emails are now known to have shown as early as 18 November 1999 (unblinded minutes), that an interim safety analysis of VIGOR showed excess deaths and cardiovascular adverse experiences – 79 cardiac events for rofecoxib compared with 41 for the control group on a traditional NSAID, naproxen.[26,27] Yet Merck made a press release on 22 May 2001, entitled "*Merck Reconfirms Favourable Cardiovascular Safety of Vioxx*". Merck even created a "fake journal" with the medical publisher Elsevier: The *Australasian Journal of Bone and Joint Medicine,* with six issues between 2002 and 2005, that collated articles favourable to Merck's drugs Vioxx and Fosamax.[28]

The FDA appears to have been complicit with Merck in early suppression of the adverse event data of VIGOR. Eventually the FDA did instruct Merck (April 11th, 2002) to include a precaution about cardiovascular risks in their package insert.[24] Dr David Graham, an FDA scientist in its Office of Drug Safety, revealed this interplay in his testimony to the US Senate (below).

Vioxx remained on the market until the completion of the APPROVE study in 2004. The intention was to promote use of Vioxx to treat polyps of the colon. But again, the drug demonstrated at least double the cardiovascular risk compared with placebo, this time in a patient population considered to be at low risk of cardiovascular disease.[29]

Merck announced withdrawal of Vioxx on 30 September 2004, the largest prescription drug recall in history to date.

Over 20 million people in the US are believed to have taken the drug, of whom an estimated 88,000 to 139,000 suffered myocardial infarctions, with 30–40% fatality rate (testimony of Dr Graham to the US Senate).[30] His figures on estimated cardiac arrests were also published in *The Lancet*, despite opposition from the FDA.[31] Dr Graham further testified to the Senate that conflicts of interest at the FDA had delayed the Vioxx recall.[32] Discovery documents in litigation reveal corporate pharma may conceal data early, at any cost to achieve market growth.[33,34] Here the FDA appeared complicit and slow to withdraw the product.[24,35] Published in the *NEJM*, prominent cardiologist Eric Topol included strokes as well as myocardial infarctions to estimate 160,000 events per 10 million people prescribed Vioxx, and he noted a global cohort of up to 80 million had been prescribed Vioxx.[24]

By August 2005, 13,000 class action lawsuits had been filed against Merck. By November 2007, Merck had created a settlement fund of $4.85 billion USD, the largest ever in US history at the time. Merck agreed to compensate victims in exchange for a no-fault agreement – specifically, no legal admission of fault. Yet payment of $4.85 billion USD in compensation to claimants could clearly be interpreted as an admission of fault.[25,26]

When the Vioxx scandal broke, Merck had a capital market value of between $40 and $50 billion USD. Despite the greatest drug scandal in the world, enormous fines and atrocious damage to image, Merck has continued to grow in the last 2 decades and has increased its value six-fold to over $300 billion USD.

COVID-19 gene-based vaccines

Initially marketed December 2020, as Emergency Use Authorisation (EUA) in the USA, and provisional authorisation in Australia and other nations, the gene-based COVID-19 vaccines of modified mRNA type, (Pfizer-BioNTech's BNT162b2, Moderna's mRNA-1273) and viral-vector-DNA type (AstraZeneca's ChAdOx1-S, Janssen's Ad26.COV2.S, Gamaleya's Sputnik V) have constituted the majority of over 13 billion doses of all COVID-19 vaccines.[36–41] In contrast, COVID-19 vaccines that employ traditional well-tested inactivated virus or

recombinant protein antigen-based technologies have been utilised mainly in a few non-Western nations (e.g., Bharat Biotech's Covaxin, Sinovac's CoronaVac, Cinnagen-Vaxine's SpikoGen, Cuba's Genetic Engineering and Biotechnology Centre's Abdala).[42]

Purposed for protection against transmission of the SARS-CoV-2 virus and reduced disease severity, official sales narratives included – "safe and effective", and "millions of lives saved". Indications of serious harm appeared from 2021 with record high adverse event reports to pharmacovigilance. These included suspected death reports as indicated by VAERS data[43] (Figure 1), peer-reviewed VAERS and EudraVigilance data,[44] excess mortality above expected from collation of official death statistics by Our World in Data[45] and insurance data for excess mortality and disability[46] correlated with COVID-19 vaccination. Montano (2022) compared COVID-19 vaccines (Janssen, Moderna, Pfizer-BioNTech) with influenza vaccines, and found extremely high elevated relative risk for serious and fatal adverse events across most organ systems [[44], in Table 3b]. Excess mortality is defined as mortality above normal background rates at ourworldindata.org which is under the jurisdiction of Oxford University, UK.

Market restrictions on recommendations began September 2022, with COVID-19 booster vaccines generally limited to over age 50 and the vulnerable in Nordic nations and Switzerland, e.g., the Danish Health Authority declared it was "no longer possible … for children and adolescents aged under 18" to get the COVID-19 vaccine "from 1 September 2022".[47] By contrast, the USA, Canada, Australia and some other nations still market for children. The key failure is to have mandated injections in young and healthy adults; these mandates correlate with excess mortality.[44–46] A recent peer-reviewed study in *BMJ Public Health* on excess mortality from 47 Western nations, finds over three million excess deaths from January 2020 to December 2022. Notably, when stratified by year, the highest number of excess deaths was reported in 2021, the year in which mass vaccination began. Especially in late 2021 which saw imposition of vaccine mandates in many nations (first graph p. 5).[45] Additional lessons potentially are that rushed "warp speed" development of novel technologies is unwise; narrative and groupthink can distort judgement; suppression of clinical trial data is harmful; heightened active pharmacovigilance must be encouraged.[48–50]

Use of the term "vaccine" for novel experimental agents that deploy gene codes may convey a false sense of assurance in the absence of supportive data and thus may mislead. In pharmacological design terms, these products are "pro-drugs".[51] They must enter cells and undergo translation of genetic code before intended outcomes

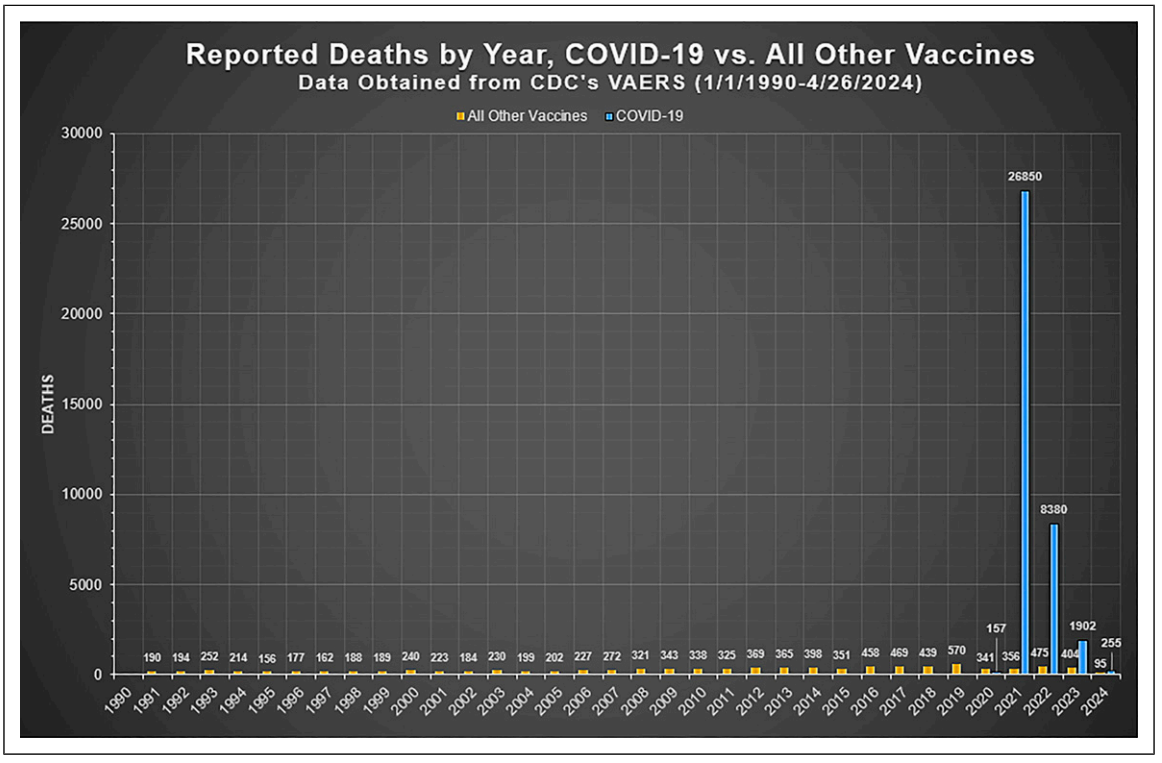

Figure 1. Reported suspected deaths from vaccines to VAERS since 1990 comparing all other vaccines combined with COVID-19 vaccines. From VAERS Analysis[43] (with permission).

unfold[52] (Figure 2), and in this sense they operate as "synthetic viruses".[53] Unintended consequences are thus possible.[53–57]

A systematic review of the peer-reviewed literature: "Serious harms of the COVID-19 vaccines: a systematic review" by Gotzsche and Demasi (2024) [[58] preprint] found that with the notable exception of Fraiman et al.,[59] "most studies were of poor quality" (abstract) and used methodologies such that "serious harms are vastly underreported" (p. 7). They conclude:

> Adenovirus vector vaccines increased the risk of venous thrombosis and thrombocytopenia, and the mRNA-based vaccines increased the risk of myocarditis, … serious neurological harms (occurred), which are likely due to autoimmune reaction. … Severe harms were underreported in the randomised trials [published in the NEJM].

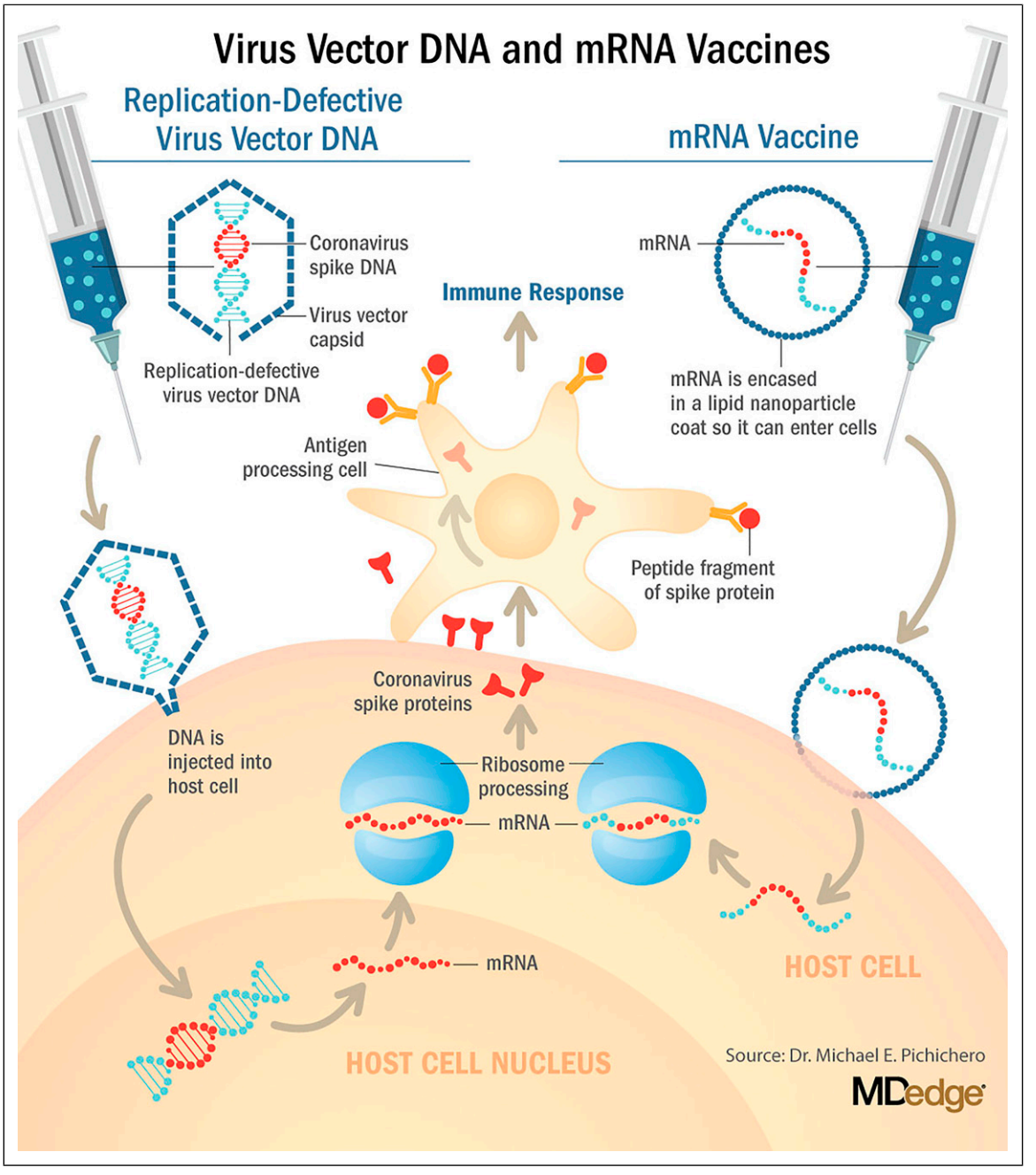

Figure 2. COVID-19 virus vector DNA and mRNA vaccines: mechanism of action. From Pichichero ME (with permission).[51]

As authorisation and promotion of the COVID-19 mRNA vaccines continue, the authors call for randomised trials of COVID-19 booster doses in high-risk groups that thoroughly examine serious adverse events.[59] The authors also state that "Authorities … do not consider that the balance between benefits and harms becomes negative in low-risk groups such as children [and those with natural immunity]" (abstract). This point has been well made by Bardosh et al. (2024)[60] who argued against universal vaccine mandates and noted that based on the Pfizer-BioNTech vaccine booster trial data,[61] to prevent one COVID-19 hospitalisation, 18.5 students would suffer a serious adverse event.[60]

These products are novel and experimental, whether modified mRNA gene codes encased in lipid nanoparticles (LNP) (Pfizer-BioNTech and Moderna), or viral-vector-DNA gene codes encased in adenovirus shells (AstraZeneca, Janssen, Sputnik V). These gene sequences produce the spike protein antigen of the SARS-CoV-2 virus, which must be extruded from the cell surface as foreign protein to stimulate an immune response. This is a new mechanism for public vaccination, completely distinct from traditional vaccine technologies.

Moreover, rigorous assessment of long-term safety of these experimental gene-based products has been effectively sabotaged by the early dissolution of the placebo arm in phase III clinical trials.[62] Despite this, the interim and extensive publication of these abbreviated clinical trials in the *NEJM* has been used to support marketing and the public health message of "safe and effective".

In terms of efficacy, failure to prevent infection or transmission of the COVID-19 variants[63–66] eventually led the US Centers for Disease Control and Prevention (CDC) to reinvent their definition for "vaccine" as no longer the provision of "immunity," but as "protection" against disease severity[67,68] – now a narrative challenged by more recent data. Promotion of the belief that millions of lives would be saved by these agents has been based on hypothetical, predictive epidemiological models which have a track record of miscalculation.[46,53,73] Official data from New South Wales state in Australia by late 2022 during the omicron variant wave did not concord with the message that these agents prevent serious disease or death, and even suggested the opposite.[53]

For the wealthy western nations who have utilised these novel agents in particular, the haste and scale of development, production, distribution, and administration is unprecedented.[69] Yet haste, especially at "warp speed", should be alien to good medical science. It is likely that novel technology, haste in vaccine development and mass production all contributed to the reported phenomenon of "batch toxicity" based on official pharmacovigilance data.[70]

Key failures – Coercion and mandates, ridicule of educated hesitancy

Perhaps the greatest failure of gene-based vaccine use is the political act to mandate therapy. Mandates are relatively rare in medical history. Vaccine passports to engage in normal life resemble measures under totalitarian rule. The deadlines for COVID-19 vaccine mandate compliance correlated closely with excess morbidity and mortality.[1,44,46]

Given the novel nature of gene-based COVID-19 vaccines, it may be no surprise that "vaccine hesitancy" among those with tertiary qualifications was highest with PhD doctorates (January–April 2021, 14.6%),[71] and among healthcare workers was highest for "emergency medical technicians/paramedics" (April–May 2021, 45.4%).[72] Reflective of both research and coalface clinical experience. This could thus be referred to as "educated hesitancy", found in a cohort most familiar with the imperfections of corporate sponsorship, market authorisation and medical literature, and a cohort on the frontline. Educated hesitancy towards these products has been ridiculed. It is particularly tragic that mandates have been applied to the young, fit, and healthy in our workforce, at minimal risk from the coronavirus itself, some of whom have paid the ultimate price with loss of life.[43–46] In fact, at a global level the median pre-vaccination infection fatality rate (IFR) was estimated at 0.03% for the 0 – 59-year-old population, while for children aged 0–19 years the median IFR was 0.0003%.[73] These observations indicate that children and adolescents are essentially at zero risk of COVID-19 mortality.

The limitations in the peer-reviewed literature to identify and quantify the harms of the gene-based COVID-19 vaccines [58, preprint], means greater consideration must be given to analyses of public datasets of passive and active pharmacovigilance and insurance and actuarial data. A graph of Western Australian Vaccine Safety Surveillance (WAVSS) (Figure 3 in our prior paper)[1] illustrates this, and it should be noted that due to remote geography and border closures, the state of Western Australia was essentially free of the SARS-CoV-2 virus in 2021.[1]

Similarly, a strong temporal correlation was evident between the imposition of COVID-19 vaccine mandates for employment in the third quarter of 2021 in the USA and high excess mortality for working age (25–64 years old) Americans, in the data collated by the US Society of Actuaries Research Institute, as shown in the table from *Cause Unknown* by Edward Dowd[46] (p. 80) (Figure 3).

With Vioxx, the key publication of the VIGOR clinical trial in the *NEJM* excluded three subjects with severe cardiovascular adverse events, a data suppression that obscured the true risk. Similarly with the phase III clinical

Table 5.7

EXCESS MORTALITY BY DETAILED AGE BAND

Age	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	4/20-3/22	% COVID	% Non-COVID	% Count
0-24	116%	124%	104%	101%	119%	127%	110%	91%	111%	3.3%	8.1%	2%
25-34	127%	132%	121%	118%	131%	178%	131%	125%	133%	13.3%	19.6%	2%
35-44	123%	134%	128%	129%	133%	200%	156%	136%	142%	23.1%	19.2%	4%
45-54	123%	127%	129%	133%	119%	180%	151%	143%	138%	27.4%	10.8%	9%
55-64	117%	123%	130%	130%	114%	153%	141%	137%	131%	24.0%	6.7%	18%
65-74	117%	115%	133%	130%	108%	131%	125%	122%	122%	18.6%	3.9%	17%
75-84	114%	114%	133%	123%	106%	119%	121%	121%	119%	14.0%	4.6%	20%
85+	112%	103%	124%	111%	92%	104%	105%	103%	107%	10.3%	-3.5%	27%
All[11]	116%	115%	129%	123%	107%	134%	126%	122%	121%	17.1%	4.3%	100%

Figure 3. Table 5.7 Excess mortality by detailed age band. From p.80 Dowd E (2022)[46] (with permission).

trials for the Pfizer, AstraZeneca and Moderna COVID-19 vaccines it is now known that three subjects with serious adverse events were excluded [[49,58] preprint,[74]] from key papers[36,37,39] in the *NEJM*, which influenced health policy globally. These omissions occurred in the context of a non-random excess of 251 exclusions from the vaccine arm compared to placebo arm (311 vs 60) in the Pfizer clinical trial[75] and reported unblinding at one of the clinical trial sites.[76]

Two phase III clinical trials subjects who suffered severe adverse events from the vaccine arms of the Pfizer-BioNTech trial and the AstraZeneca trial [[49,58] preprint], and one from the Moderna trial[74] came forward to say their adverse event data was not published in the *NEJM* peer-reviewed papers of the clinical trials, and likely not reported to the FDA either. In the case of AstraZeneca, this was despite appeals to the journal.[49] A further case of a 12-year-old in the adolescent Pfizer COVID-19 clinical trial, suffered permanent severe polyneuropathy and is wheelchair bound [[58] preprint,[77,78]], is recorded in the *NEJM* paper as "functional abdominal pain".

Additionally, the Pfizer-BioNTech phase III trial report submitted to the FDA for Emergency Use Authorisation listed 2 deaths in the mRNA vaccine arm and 4 deaths in the placebo arm. However, documents released under court order revealed a further 4 deaths in the vaccine arm and 1 death in the placebo arm, to give the total number of deaths before the data cut-off date actually 11 (6 vaccine, 5 placebo) versus the 6 disclosed. Closer examination of relevant documentation available for each patient showed a pattern of delay in death notification, a clear violation of trial protocols and legal requirements.[48] By the end of the truncated Pfizer phase III trial there were 21 deaths in the vaccine arm and 17 in the placebo arm and the difference was accounted for by cardiovascular mortality.

Discussion

In this selective narrative review, we have chosen some of the most well-known drug recalls and data suppression scandals. We have sought insights from these events that may help better appraise the current gene-based COVID-19 vaccines, which have together formed the largest ever launch of novel pharmaceutical product in history.

Medical research

Quality of research in medical science is problematic. The scientific "replication crisis", which is also a publication crisis, has been studied, debated and recognised in surveys of scientists[79,80] ever since Ioannidis' highly cited 2005 paper asserted that at least half the published medical literature may simply be wrong.[81] The crisis rests on pressure to publish, failure to publish negative and/or unfavourable data, lack of data transparency, poor methodological design of studies, statistical errors, carelessness, inexperience of peer reviewers and editors, commercial interest, ideological biases, failure to declare conflicts of interest and fraud.[81,82] Tanver et al. noted lack of data transparency in the COVID-19 vaccine trials[83] and cast doubt on their use in public health, as did senior and chief-editors of the *BMJ*.[50]

Distorted data, particularly due to commercial bias, is regularly published in medical journals. A Cochrane Review meta-analysis found odds ratios exist for a *sponsored* drug trial to find results, (OR 2.05) and provide conclusions (OR 2.69) in favour of the drug versus an *independent* trial for the same agent.[84]

Corporate integrity and data transparency

Concerns exist related to data transparency, access to raw data, and the potential for hidden data, deleted data or indeed failure to record data.[10,12,15,24,30,33,34,49,50,74–90] The track record of the pharmaceutical industry in these areas has been weak. Internal industry documents released after criminal convictions of the companies concerned, reveal a systemic pattern geared towards "marketing-based medicine" that is at odds with "evidence-based medicine".[33]

Among many examples, an internal AstraZeneca email discussed "*burial*" of data from four clinical trials. We quote John J A Tumas, Publications Manager, AstraZeneca, 6 December 1999,

> There is pressure from outside the industry to provide access to all data from clinical trials conducted by the industry; thus far we have buried trials 15, 31, 56 and are now considering COSTAR.[90]

Illusion of evidence-based medicine

Jureidini and McHenry, in a prominent article in the *BMJ* asserted that Medicine has been "corrupted by corporate interests, failed regulation and commercialisation of academia", to cause an "illusion of evidence-based medicine".[85] The evidence base for clinical and public health decisions has long been corrupted, in the view of former chief-editors of *The Lancet*,[91] the *BMJ*[86] and *NEJM*.[87] Peer review cannot possibly police commercial and ideological conflicts of interest.

Pharmaceutical companies, publication and statistics

Manipulation of statistics in the medical literature has been lamented.[18] Widespread promotion of relative rather than absolute risk and use of surrogate endpoints are examples.[18,75]

Concerns exist over the transparency of COVID-19 mRNA vaccine trial data. Available figures from Pfizer and Moderna trials listed at clinicaltrials.gov have been evaluated (NCT04368728 and NCT04470427). As originally published in *NEJM*, the Pfizer and Moderna mRNA COVID-19 vaccine interim phase III clinical trial reports suggested a favourable risk/benefit ratio. Based on exactly the same data, Fraiman and colleagues publish in *Vaccine* that:

> mRNA COVID-19 vaccines were associated with an excess risk of serious adverse events of special interest of 10.1 and 15.1 per 10,000 vaccinated over placebo baselines of 17.6 and 42.2 (95% CI −0.4 to 20.6 and −3.6–33.8), respectively.

From which they conclude a need for formal risk-benefit analyses.[59]

The FDA has been publicly criticised for their slow response to follow up potential increases in serious adverse events in elderly people related to Pfizer's mRNA COVID-19 vaccine [[58] preprint,[92,93]].

There are even indications that initial clinical trial work, published in the *NEJM*, may have been performed with mRNA products that differed from those eventually mass-produced. The clinical trial mRNA gene codes were created by PCR "Process 1" technology, but the vials for the public were produced by "Process 2" E. coli plasmid DNA manufacture, which has led to plasmid DNA contamination of vaccine vials.[94]

Beyond any clinical trial data and the process required to obtain initial approval from regulatory authorities, is the absolutely vital need to recognise that all therapeutic agents must be continuously monitored and subject to the red flags of vigilant surveillance.

Lack of recognition of pharmacovigilance data

Historic precedence in pharmacovigilance, safety and product recall has not been followed with respect to the COVID-19 gene-based vaccines, as shown by reports on https://www.vaersanalysis.info/ which collates weekly updates of data from the US CDC's Vaccine Adverse Event Reporting System (VAERS) (Figure 4). The methodology used by vaersanalysis.info is presented in the supplemental materials.

A polio vaccine was withdrawn after just 10 death reports,[95] the Swine Flu vaccine of 1976 was recalled after just 25 of the ultimate 53 death reports.[96]

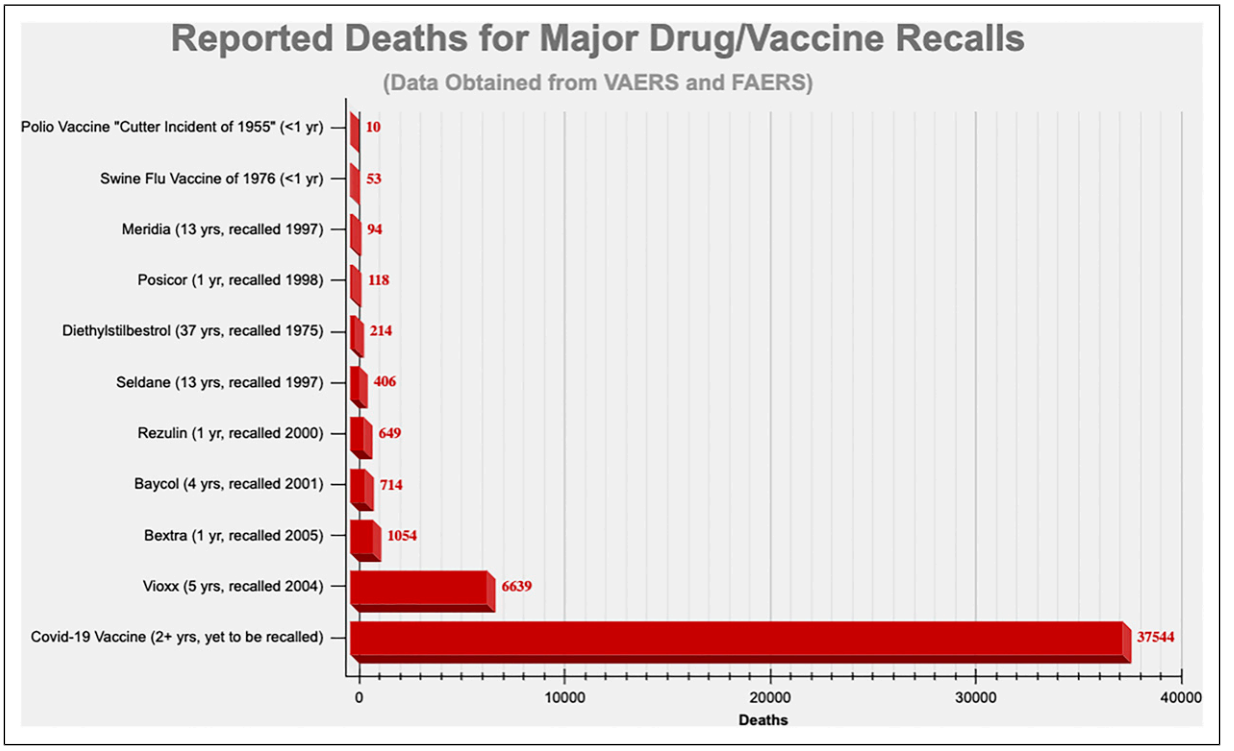

Figure 4. Reported suspected deaths for major drug/vaccine recalls versus COVID-19 vaccine reported suspected deaths. From VAERS Analysis[43] (with permission).

Not only are adverse events exceedingly high for the COVID-19 vaccines compared to all other vaccines (Figure 1), but deaths related to vaccines based *per million doses* show an unprecedented performance for the COVID-19 gene-based agents. Comparison with the influenza vaccine for which more doses have been dispensed is noteworthy (Figure 5).

The red bars provide a comparison of ratios of adverse events/distributed doses of vaccines. The COVID-19 vaccines have data for both distributed doses (solid bar) and administered doses (taller dotted line bar) which might be a more accurate comparison given the reported high proportion of non-used COVID-19 vaccine doses.[97,98]

Pharmacovigilance underestimation factor

Vioxx data suggests the FDA's adverse event database (FAERS) *underestimates deaths by a factor of 5- to 9-fold*.[88,99] With deaths from strokes added to heart attacks, the under-estimation factor is likely to have been greater.[24] Yet, since the advent of the COVID-19 vaccines, health authorities have strenuously suggested the unprecedented adverse events are over-reported and thus overestimated. For example, the Australian Therapeutics Goods Administration (TGA) claim of overestimation by its *passive* system Database of Adverse Event Notifications (DAEN) is directly contradicted by the Australian National Centre for Immunisation Research and Surveillance (NCIRS), who operate the *active* prompted submissions to the AusVaxSafety database. While active AusVaxSafety data for Pfizer,[100] Moderna,[101] and AstraZeneca[102] vaccines failed to question around severe adverse events, and is thus incomplete, it still reflects far greater numbers of adverse events than the passively collected TGA DAEN figures.

In the US, government quality assurance suggests that the CDC's VAERS *under-reports by a factor of 10- to 100-fold* – that only 1%–10% of all serious vaccine injuries are recorded.[103] VAERS sensitivity to capture serious adverse events well-known to be caused by vaccines, namely anaphylaxis and Guillain-Barré syndrome, ranged from 12% to 76%, but mostly around 25% for several vaccines. In other words, an *underestimation factor of 4-fold*.[104]

These pharmacovigilance databases err decidedly on the side of underestimation, not overestimation.

In this context, the TGA confirms 14 of 1004 deaths (to 29 October, 2023) reported as potentially associated with the COVID-19 vaccines authorised in Australia,[105] which implies the other 990 deaths (98.6%) reported, mostly by clinicians,

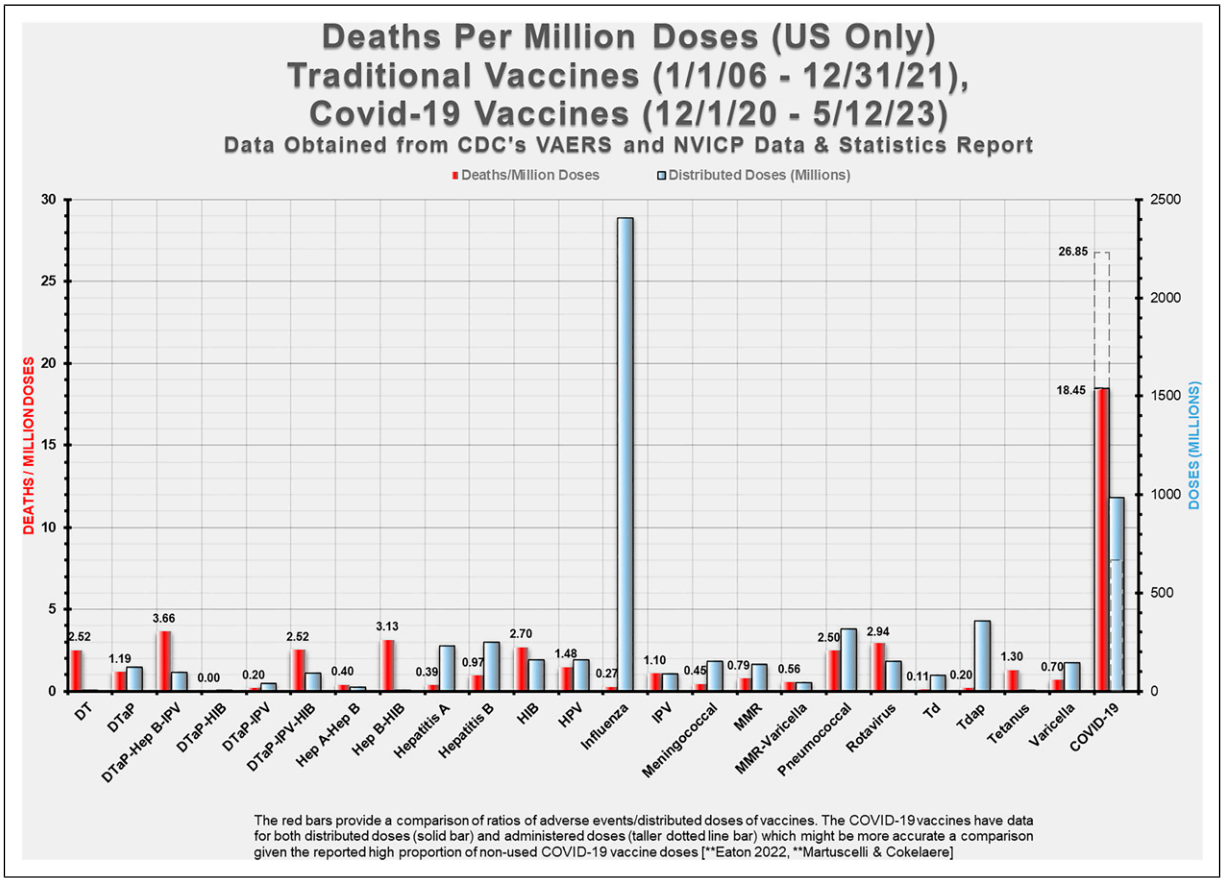

Figure 5. Suspected deaths per million doses of vaccine. Distributed doses in millions. Traditional versus COVID-19 vaccines. From: VAERS Analysis[43] (with permission). See also supplementary materials for further information on this graph.

are attributable to an *overestimation factor.* The TGA dismissal of the severity of its own DAEN data is at odds with all prior research and with the active surveillance systems.

The active surveillance AusVaxSafety survey data showed a dose response effect of increased mRNA in the higher ratio of adverse events from Moderna than Pfizer COVID-19 vaccines and in the higher rate after the second dose that follows soon after the first. Graphical representations of the statistics reveal high rates of "missing work, study or routine duties". A graph from the AusVaxSafety survey for the Moderna vaccine[101] is presented in Figure 6. AusVaxSafety had a limited range of adverse events typical of reactogenicity to vaccines for respondents to select. Inability to perform normal activities is generally considered a criterion for serious adverse events, even though the survey did not specifically list them.

Educated hesitancy has been mocked. Figure 7 from the VAERS analysis data shows that the rate of adverse events per vaccine dose reported did not vary substantially across the age range. This contrasts with the severity of COVID-19 viral illness which was a relatively mild illness for younger age cohorts.

Pharmacovigilance and the future

Broadly, all pharmaceutical products are continuously experimental, observed and tracked by pharmacovigilance systems worldwide. The population ultimately becomes the long-term experiment.[1]

Gene-based medicine in blanket form, with mass production at extremely low cost, is expected to become a significant market trend.[106] With the many gene-based therapeutic technologies planned, a vast new era of pathology may lie ahead.

Time honoured medical ethics and the precautionary principle must be reasserted. Commercial pressure, distortion of evidence base, authority bias and groupthink bureaucratic lockstep policy, all mitigate against cautious, safe-practice medical science.

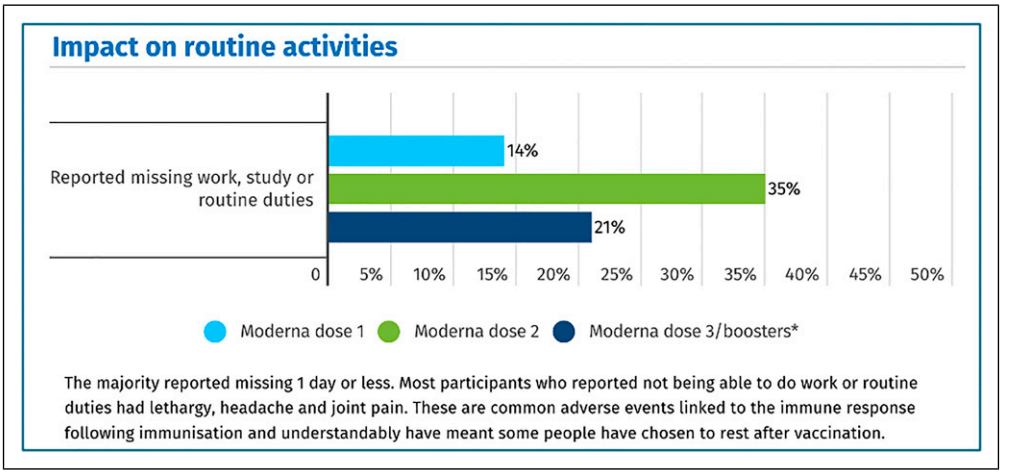

Figure 6. Impact on routine activities of Moderna doses 1, 2 and booster. AusVaxSafety data as January 26, 2023.[101]

Access to raw data, open discussion, freedom from censorship and heightened, active pharmacovigilance must be nurtured, if the health of humanity is to be better protected and if trust in the medical profession is to be fully restored.

Limitations

In this selective narrative review, limitations are embodied in the very nature of our subject matter – an exploration of conflicts between scientific integrity, data transparency and timely action on pharmacovigilance and adverse events, versus corporate ambitions to advertise, compete and market pharmaceutical agents for financial gain. The authors acknowledge limitations of free access to confidential data, a reliance upon Freedom of Information requests (themselves dependent upon

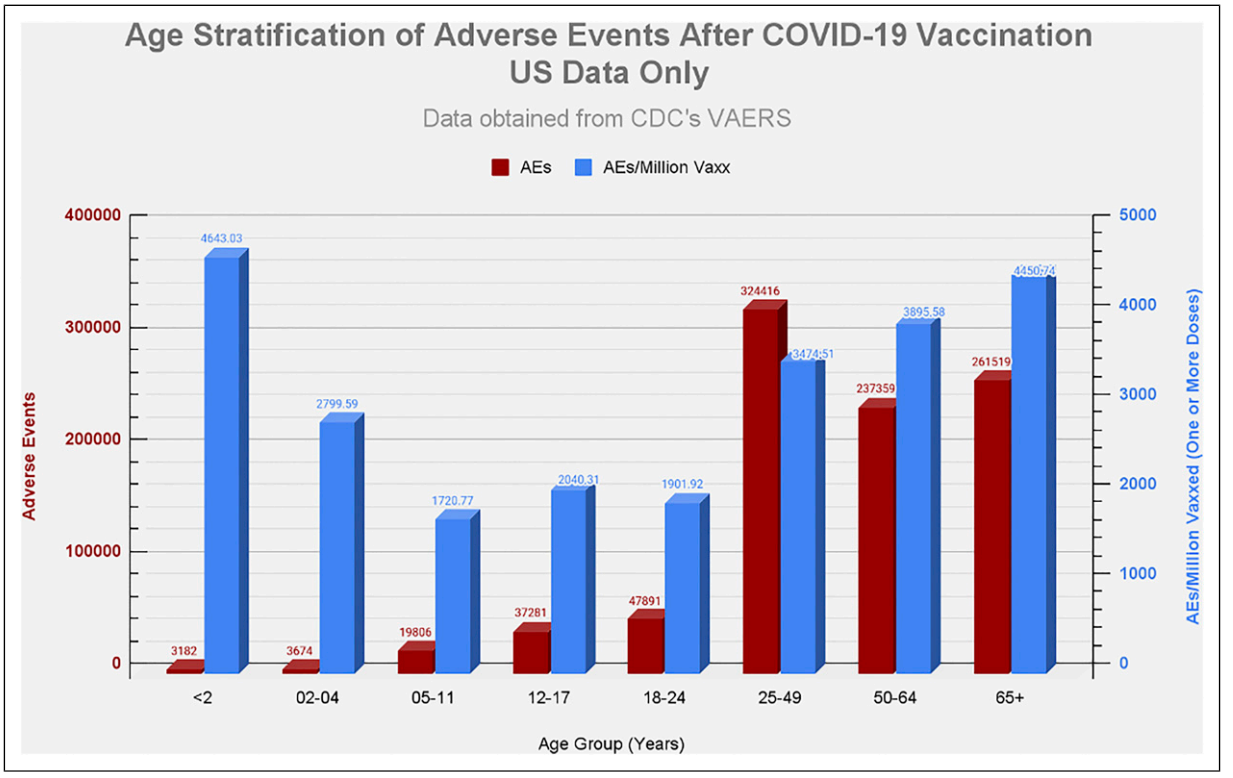

Figure 7. Age stratification of adverse events after COVID-19 vaccination. From: VAERS Analysis[43] (with permission).

the time, will and energies of interested parties), and of course dependency upon peer reviewed medical literature, an uncertain proportion of which has been shown to be unreliable, either because of exuberant optimism, publication haste or by deliberate design.[25–28,30,32–35,57–74]

The methodology for the graphs from https://www.vaersanalysis.info/ used in this paper, and limitations in the raw data used to compile those graphs, are described in the supplemental materials.

Conclusion

The fullest context is one in which the pharmaceutical industry has provided many remarkable drugs for the benefit of humanity. From this backdrop, we have selected a few of the most significant events in pharmaceutical recall history, in which commercial interest has dominated market strategy, and we have sought to derive key lessons from these.

A host of mechanisms are used by the pharmaceutical industry to promote and market their products. These include changes to the definitions or boundaries of disease, introduction of bias long before data collection begins, concealment of raw data, failure to collect safety data, or decisions not to report negative or unfavourable results.[33,89,90]

Gene codes for foreign protein production throughout the body are particularly novel. Close attention to pharmacovigilance data is imperative. Failure to withdraw the gene-based COVID-19 vaccines from the market, despite clear indications of harms, is not without precedent – as has been seen with Merck's Vioxx (rofecoxib).

Excess mortality figures are high at present in many countries that have deployed the novel and experimental gene-based COVID-19 vaccines. As open-mindedness, objectivity and curiosity are essential to good science, we must immediately include new corporate products in our discussions about excess mortality and its possible causes. Drug recalls have been significant and numerous over recent decades. It may well be high time for the recall of still more.

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Supplemental Material

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Thursday, September 12, 2024

Updated Guidance for COVID-19 Boosters for the Fall and Winter 2024–2025 Season

Tallahassee, Fla. – The Florida Department of Health (Department) is reminding health care providers of the importance of remaining up to date with current literature related to COVID-19 vaccines and boosters, and the importance of providing patients with informed consent.

On August 22, 2024, the United States Food and Drug Administration (FDA) approved and authorized updated versions of mRNA vaccines from Pfizer-BioNtech and Moderna. The FDA approved the vaccine for people 12 and older and provided emergency use authorization for children 6 months to 11 years old. The stated target of these boosters is the Omicron variant which is not causing a significant number of infections.

The most recent booster approval was granted in the absence of booster-specific clinical trial data performed in humans. Furthermore, this booster does not protect against the currently dominant strain, accounting for approximately 37% of infections in the United States. There are currently limited data to inform whether these boosters offer any substantial protection against the virus and subsequent circulating variants. Although randomized clinical trials are normally used to approve therapeutics, the federal government has not required COVID-19 vaccine manufacturers to demonstrate their boosters prevent hospitalizations or death from COVID-19 illness.

Additionally, the federal government has failed to provide sufficient data to support the safety and efficacy of COVID-19 boosters, or acknowledge previously demonstrated safety concerns associated with COVID-19 vaccines and boosters, including:

- prolonged circulation of mRNA and spike protein in some vaccine recipients,
- increased risk of lower respiratory tract infections, and
- increased risk of autoimmune disease after vaccination.

Health care providers are encouraged to share information in this guidance in discussions with patients regarding the mRNA COVID-19 vaccines and boosters.

Based on the high rate of global immunity and currently available data, the State Surgeon General advises against the use of mRNA COVID-19 vaccines. Any provider concerned about the health risks associated with COVID-19 for patients over the age of 65 or with underlying health conditions should prioritize patient access to non-mRNA COVID-19 vaccines and treatment.

Safety and Efficacy Concerns

Providers and patients should be aware of outstanding mRNA COVID-19 vaccine safety and efficacy concerns:

- The mRNA COVID-19 vaccines present a risk of subclinical and clinical myocarditis and other cardiovascular conditions among otherwise healthy individuals.
- The mRNA COVID-19 vaccine may be associated with an increased risk of postural orthostatic tachycardia syndrome (POTS).
- The mRNA COVID-19 vaccine may be associated with an increased risk of autoimmune diseases including systemic lupus erythematosus (SLE), rheumatoid arthritis, and psoriasis.
- Throughout the pandemic, studies across geographic regions found that the mRNA COVID-19 vaccines are associated with negative effectiveness after four to six months. As efficacy waned, studies showed that COVID-19 vaccinated individuals developed an increased risk for infection.
- Elevated levels of mRNA and spike protein from the mRNA COVID-19 vaccine persist among some individuals for an indefinite period, which may carry health risks.
- Potential DNA integration from the mRNA COVID-19 vaccines pose unique and elevated risk to human health and to the integrity of the human genome, including the risk that DNA integrated into sperm or egg gametes could be passed onto offspring of mRNA COVID-19 vaccine recipients.
- There is unknown risk of potential adverse impacts with each additional dose of the mRNA COVID-19 vaccine; currently individuals may have received five to seven doses (and counting) of this vaccine over a 3-year period.

Improving habits and overall health help manage and reduce the risk of heart disease, type 2 diabetes, and obesity, risk factors for serious illness from COVID-19.

The State Surgeon General and the Department continue to encourage Floridians to prioritize their overall health by:

- Staying physically active,
- Minimizing processed foods,
- Prioritizing vegetables and healthy fats, and
- Spending time outdoors to support necessary vitamin D levels.

From: bill teachingsmiles.com
Sent: 2/21/2025 7:44:45 PM
To: DOH WSBOH
Cc:
Subject: Utah Bans Fluoridation

External Email

Please pass this on to the Board Members,

https://le.utah.gov/~2025/bills/static/HB0081.html
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fle.utah.gov%2F~2025%2Fbills%2

Bill Osmunson DDS MPH

_____
From: Derek Kemppainen
Sent: 1/29/2025 12:34:24 PM
To: Burnham, Brad H (DOH),DOH EPH DW Info,Helpling, Nina D (SBOH),DOH WSBOH,Schut, Andy (DOH)
Subject: Fwd: Fluoride Memes (Another Conspiracy Theory Bites the Dust!)

External Email

Dear Washington State BOH / DOH / DWAG,

I wanted to pass along some memes I thought you and the science party / fluoridation review board might enjoy related to water fluoridation.

_____
Derek Kemppainen

360-975-2011

---------- Forwarded message ---------
From: Citizen Satirist <covidsteria@substack.com <mailto:covidsteria@substack.com> >

Date: Mon, Jan 27, 2025 at 6:02 AM
To: <derekkempp@gmail.com <mailto:derekkempp@gmail.com> >

<https://eotrx.substackcdn.com/open?token=eyJtIjoiPDIwMjUwMTI3MTQwMTMyLjMuZmVlMWI4NDY0Mzdk
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WbNA0LKL1s>
Eats through concrete & steel BUT safe to drink. Why is it in our water (HINT: The government)? Nothing to see here folks (move along) & more fluoride memes as another conspiracy theory becomes true!

Forwarded this email? Subscribe here <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F2%
for more

CONSPIRACYsteria: Best Fluoride Memes (Another Conspiracy Theory Bites the Dust!) <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fapp-link%2Fpost%3Fpublication_id%3D400307%26post_id%3D154459094%26utm_source%3Dpost-email-title%26utm_campaign%3Demail-post-title%26isFreemail%3Dtrue%26r%3Ddgmd6%26token%3DeyJ1c2VyX2lkIjoyMjYxMDQ5MCwicG9zdF9pZCI6

Eats through concrete & steel BUT safe to drink. Why is it in our water (HINT: The

government)? Nothing to see here folks (move along) & more fluoride memes as another conspiracy theory becomes true!

Jan 27

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READ IN APP
<https://substackcdn.com/image/fetch/w_36,c_scale,f_png,q_auto:good,fl_progressive:steep/https%3A%

Oh what a difference a few months can make as now it’s no longer conspiracy theory that fluoride lowers the IQs of children:

<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2Ff6cc 9563-451e-920e-b4842015622c%3Fj%3DeyJ1IjoiZGdtZDYifQ.geQYrNLIxrZwAPFV_Xe5FCcYnyCnwfzLGCxNRvp-7JI&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C32d4fea3e6074d9e55bc08dd40a4501c%7C11d0e217

Conspiracy Fact? Higher Fluoride Levels Linked To Lower IQ Scores In Children, New Review Finds
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2Fd16
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The new analysis
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F2d2
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, published in JAMA Pediatrics on Monday, found that fluoride exposure exceeding 1.5 milligrams per liter (mg/L) was associated with reduced intelligence among children.

The study, conducted by the U.S. National Toxicology Program (NTP), took nine years to complete and is the largest meta-analysis
<https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsubstack.com%2Fredirect%2F18c
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to date on the health effects of fluoride.

The studies reviewed measured fluoride levels in drinking water and in urine. The authors used urinary fluoride as a proxy for total fluoride exposure.

74 Studies Reviewed

Among the 74 reviewed studies, 64 found that higher levels of fluoride exposure were linked to lower IQ in children. The strength of this association is considered moderate to large.

Thirty-one studies reviewed noticed a dose-response, such that increased fluoride levels in drinking water were linked to further decreases in children's IQ results.

REMEMBER: Its mostly the poor and minorities drinking fluorinated tap water. Rural folks have their own wells while rich white folks (and "rich persons of color…") drink filtered or bottled water…

And now for some fluoride memes…

Nothing to see here folks, move along:

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Stop thinking too much!:

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Ohhh:

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The final word:

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From: Nancy Shaw
Sent: 1/13/2025 8:46:54 PM
To: DOH WSBOH
Cc:
Subject: Providing humane services.

External Email

Why is it that all health care providers, businesses, governments, and even the public have standards of care, policies to ensure quality care is the only care, regulations, requirements, and even procedures to follow.

Yet,
None of that applies to prisons, Inmates suffering while incarcerated, nor the vendors/contractors/"providers"? Not even actual employees, hired by the state of Washington to provide "essential and cost effective care" are held accountable.
There's not even an agency to ensure that Inmates are actually treated humanely,, receiving quality care, in a timely manner.

It's not right.
Noone should be stuck in solitary confinement for 29 days because the prison system "forgot" that the bone was protruding from your leg.
He should have been sent to the nearest hospital the day it was broken.
Not shipped across the state, stuck in a punative area, and forced into solitary confinement, unable to make any calls, watch TV, or interact with other humans.
No person should be forced into a cage and forgotten .about, ESPECIALLY not while their fibia and tibia are literally sticking out through their leg, forming external bone blisters and abscesses as the body attempts to battle infection & heal itself.

It's not right.

From: bill teachingsmiles.com
Sent: 3/5/2025 3:06:04 PM
To: DOH WSBOH
Cc:
Subject: Public Comment 3/12/25 Osmunson

External Email

Osmunson's Reasons 3,2,2025PDF

1.

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From: shellies4@netzero.com
Sent: 2/26/2025 12:19:09 PM
To: DOH WSBOH
Cc:
Subject: Public Comments for the Environmental Health Committee

External Email

Dear Board,
I would just like to remind you that the PEOPLE of this state have vote DOWN Fluoride 3 separate times and we DO NOT WANT Fluoride in our drinking water! Thank you!

You guys are doing a great job!
Have an amazing day!

From: Derek Kemppainen
Sent: 1/29/2025 1:09:09 PM
To: Burnham, Brad H (DOH),DOH EPH DW Info,Helpling, Nina D (SBOH),DOH WSBOH,Schut, Andy (DOH)
Cc:
Subject: Fwd: Fluoridation - $556 Per Person Per Year Net Economic Loss

External Email

Dear Washington State BOH / DOH / DWAG,

I am writing to share an overview of a recent publication, "Community Water Fluoridation: A Cost–Benefit–Risk Consideration <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fonlinelibrary.wiley.com%2Fdoi%2" by Osmunson and Cole (2024). This article highlights critical concerns about community water fluoridation (CWF), estimating a net economic loss of $556 per person per year once the costs of harm are fully accounted for.

I'd encourage you to read the full article linked above, but here are a few of the main points:

Key Points

1. Cost vs. Benefits:

* While cost savings of fluoridation are estimated at $8-$41 per person per year, these evaluations only consider benefits related to cavity prevention.
* The analysis identifies costs related to harms such as dental fluorosis and reduced IQ that have never been included in previous economic assessments.
* These omitted costs significantly outweigh any perceived benefits, challenging claims that fluoridation is cost-effective.

2. Developmental Neurotoxicity and IQ Loss:

* Fluoride exposure has been linked to developmental neurotoxicity, with research showing a 3-point reduction in IQ among children in fluoridated areas.
* Reduced IQ is correlated with a range of adverse societal outcomes, including:
    * Increased rates of incarceration.
    * Higher incidences of homelessness.
    * Greater reliance on public assistance programs.
    * Diminished earning potential, estimated at a lifetime income loss of $60,000 per individual exposed to fluoridated water.
* Lower IQ also impacts broader societal productivity, weakening the "Hive Mind" effect that drives economic growth and technological innovation.

3. Dental Fluorosis: Prevalence and Costs:

* Approximately 60% of U.S. children and adolescents exhibit dental fluorosis, with 95% of those affected desiring treatment for the condition.
* Cosmetic and functional dental fluorosis treatment costs range from $6,000 to $72,000 per individual over a lifetime, depending on the severity.

* Moderate to severe cases often require repeated treatments, including veneers, crowns, and other restorative procedures, which insurance typically does not cover.
* Fluorosis not only imposes financial burdens but also negatively affects individuals' self-esteem and quality of life.

4. Global Comparison and Alternatives:

* While over half of the U.S. population consumes fluoridated water, 97% of Europe has rejected this practice without experiencing higher rates of dental caries.
* Alternative methods such as fluoride toothpaste, varnishes, and oral health education are not only more effective but also avoid the systemic harms associated with fluoridation.
* Innovative options like fluoride-free biomimetic hydroxyapatite toothpaste are emerging as safer and sustainable choices for cavity prevention.

5. Ethical and Legal Considerations:

* Fluoridation policies fail to account for individual differences in fluoride exposure, as water consumption varies widely between individuals and groups.
* Vulnerable populations, including children, pregnant women, and those with preexisting health conditions, are at greater risk of harm.
* The lack of randomized controlled trials on fluoridation safety raises significant ethical concerns about imposing such a policy without informed consent.
* Unlike fluoride toothpaste, fluoridated water is not approved by the FDA and does not include dosage guidance or warning labels.

The article shows that the costs of harm, including dental fluorosis and developmental neurotoxicity, have been systematically ignored in previous evaluations of fluoridation. When these costs are factored in, fluoridation is not only ineffective but actively harmful to individuals and society.

Given these findings, I urge you to evaluate this question:

How can you demonstrate that fluoridation aligns with your responsibility to protect public health while acknowledging the net economic loss caused by water fluoridation via lowered IQ and dental fluorosis?

I look forward to your response,

Sincerely,
Derek

_____

Derek Kemppainen

360-975-2011

_____

From: Arne Christensen
Sent: 1/29/2025 3:42:50 PM
To: DOH WSBOH
Cc:
Subject: Americans' Trust in Scientists, Positive Views of Science Continue to Decline

External Email

The Board of Health should read this item:
https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.pewresearch.org%2Fscience%
trust-in-
scientists&data=05%7C02%7Cwsboh%40sboh.wa.gov%7C3328fc6110854006cd0308dd40bea2c8%7C11d

-positive-views-of-science-continue-to-decline/

What do you think has happened in the 2020s to erode Americans' trust in science? Lying about covid and deploying vaccine mandates and other regulatory weapons under the guise of fighting covid just might be a contributing factor.

From: Emiley McCorkle
Sent: 3/4/2025 3:55:02 PM
To: DOH WSBOH
Cc:
Subject: My Public Comments

 *attachments\31EF040A8B604532_WA State Board of Health Support Letter for CWF.pdf*

External Email

I've attached my letter for Community Water Fluoridation support.

Emiley McCorkle, Director of Operations
Youth and Family Link
(360) 423-6741
907 Douglas Street
Longview, WA 98632

Youth and Family Link

907 Douglas • Longview, WA 98632
Phone: (360) 423-6741 • Fax: (360) 501-6510

www.linkprogram.org

Washington State Board of Health
101 Israel Rd SE
Tumwater, WA 98501

Dear Members of the Washington State Board of Health,

I am writing to express my strong support for community water fluoridation (CWF) as an essential public health measure that ensures equitable access to preventive dental care, particularly for underserved communities. As the Access to Baby and Child Dentistry (ABCD) Coordinator for Cowlitz and Wahkiakum Counties at Youth and Family Link, I have seen firsthand how oral health disparities impact families in our region. Maintaining fluoridation in public water systems is one of the most effective ways to prevent early childhood cavities and ensure that all children, regardless of income or background, have the opportunity for a healthy start.

Fluoride in public water systems is a cost-effective and scientifically proven method of reducing tooth decay. The Centers for Disease Control and Prevention has recognized fluoridation as one of the greatest public health achievements of the 20th century, benefiting individuals across all socioeconomic backgrounds. However, it is especially critical for families who face barriers to accessing dental care, including low-income households, rural communities, and communities of color. Many of the families I work with struggle to find pediatric dental providers, and the preventive protection that fluoridation offers is invaluable in reducing the need for expensive and invasive treatments.

The increasing political opposition to CWF is concerning, especially as misinformation continues to spread. I appreciate that the Department of Health is conducting a scientific review, and I hope that the process affirms what decades of research have already shown: that water fluoridation is safe, effective, and necessary.

I strongly encourage the Board to continue supporting fluoridation policies and to prioritize evidence-based decision-making in public health matters. Thank you for your time and consideration.

Sincerely,

Emiley McCorkle

Emiley McCorkle
Access to Baby and Child Dentistry (ABCD) Coordinator
Youth and Family Link
Cowlitz & Wahkiakum Counties