

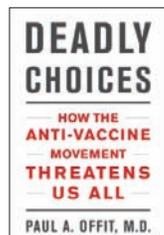
Fearing Vaccines

More than Disease

Two books examine the roots and repercussions of a growing anti-vaccine movement

By Kristen Jill Kresge

“WHEN VACCINES WORK, nothing happens,” says Paul Offit, chief of the division of infectious diseases and director of the Vaccine Education Center at the Children’s Hospital of Philadelphia. And so it isn’t terribly surprising that the absence of several infectious diseases for which there are highly effective vaccines goes largely unnoticed. But now, some of these preventable diseases, which were all but eradicated in many wealthy countries, are on the rise.



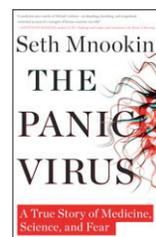
DEADLY CHOICES
How the Anti-Vaccine Movement Threatens Us All
 By Paul A. Offit, M.D.
 288 pages. Basic Books.

As both Offit, in his new book *Deadly Choices, How the Anti-Vaccine Movement Threatens us All*, and Seth Mnookin, in his new book *The Panic Virus: A True Story of Medicine, Science, and Fear*, explain, the resurgence of vaccine-preventable diseases stems from a growing number of parents who are choosing not to vaccinate their children. According to a study published in the *Journal of the American Medical Association* in 2006, the percentage of unvaccinated children in the US has more than doubled since 1991.

This trend has dire consequences, extending far beyond the US. “As more and more people have chosen not to vaccinate, herd immunity has broken down,” writes Offit. Mnookin cites several alarming statistics: in 2009, there were more than 13,000 cases of pertussis or whooping cough in Australia, the highest number ever recorded in that nation’s history. In Great Britain, the number of cases of measles has increased more than a thousand-fold since 2000. And in 2010, an outbreak of pertussis in California was so

serious (public health authorities have reported nearly 9,000 confirmed, probable, or suspected cases and 10 deaths since Jan.1, 2010) that it actually led some countries to warn their citizens about the possible dangers of travel to that area of the state.

Before the 1940s, pertussis was one of the leading causes of infant mortality in the world. After the vaccine was introduced, the number of deaths from this disease in industrialized countries dropped by more than 90%. Offit begins his analysis of the anti-vaccine movement by asking, “How did we get here? How did we come to believe that vaccines, rather than saving our lives, are something to fear?”



THE PANIC VIRUS
A True Story of Medicine, Science, and Fear
 By Seth Mnookin
 448 pages. Simon & Schuster.

The roots of the anti-vaccine movement are indeed complex, but there are several individuals and institutions that both Offit and Mnookin accuse of perpetrating anti-vaccine rhetoric, and as they convincingly classify it, fallacy. Both authors pin much of the blame on the media, whose slapdash reporting on issues of vaccine safety and reliance on controversy to sell papers or boost ratings has helped fuel the movement against vaccines. “It’s the media that provided—and continues to provide—the fuel for this particular fire,” writes Mnookin, who is a contributing editor at *Vanity Fair*. Offit and Mnookin both pinpoint the birth of the modern American anti-vaccine movement to a specific day. It was April 19, 1982, when a television station in Washington, D.C. aired a one-hour show titled “DPT: Vaccine Roulette.” The show focused on claims of brain damage, mental retardation, and neurological damage that

resulted from the pertussis vaccine, one of the three components of the DPT vaccine (the others being diphtheria and tetanus). Mnookin acknowledges that DPT is a reactogenic vaccine and that doctors had been aware that it could cause seizures, high fevers, and fainting. But “Vaccine Roulette” depicted numerous stories of children who experienced permanent neurological and developmental damage after DPT vaccination. Offit says this show inspired multiple news outlets across the country to write about the dangers of the pertussis vaccine and caused thousands of parents to stop vaccinating their children. The airing of “Vaccine Roulette” had another profound effect—it inspired so many lawsuits against vaccine makers for vaccine-related injuries that it led the US Congress to pass the National Childhood Vaccine Injury Act that protected the vaccine manufacturers by shifting the burden of litigation from the companies to the government.

In her book, *A Shot in the Dark: Why the P in the DPT Vaccination May Be Hazardous to Your Child’s Health*, published nearly a decade after “Vaccine Roulette” first aired, Barbara Loe Fisher was the first to suggest specifically that vaccines might be linked to autism. Then in 1998, Andrew Wakefield, a surgeon with the Royal Free Hospital in London (Wakefield was stripped of his medical license in 2010), was the lead author on a now infamous study in *The Lancet* suggesting a possible link between gastrointestinal disease and the onset of behavioral disorders, including autism, in children following receipt of the measles, mumps, rubella (MMR) vaccine. This study, which the journal retracted in 2010, was once again the subject of scrutiny when investigative journalist Brian Deer published a series of articles in the *British Medical Journal* in January 2011 documenting how Wakefield and colleagues had misrepresented the medical histories of most of the 12 children on whom the study was based, and even more damning, that Wakefield profited from this “elaborate fraud.” As both Offit and Mnookin relate, this study resulted in plummeting MMR vaccination rates in the UK.

Even as studies showing there was no connection between autism and MMR vaccination mounted, the anti-vaccination campaign in the US gained momentum. This time there was another culprit, thimerosal.

In 1999, the US Centers for Disease Control and Prevention and the American Academy of

Pediatrics called for the removal of a mercury-based preservative called thimerosal from vaccines because they worried that children might be receiving too much mercury. This fueled another vaccine-related scare, taken up by notable public figures like Robert F. Kennedy, Jr. and the actress Jenny McCarthy, and caused more parents to shun vaccines because of suggestions that thimerosal was also linked to autism. In 2001, thimerosal was removed from all vaccines, and then in 2004, an independent committee appointed by the prestigious US Institute of Medicine concluded “the body of epidemiological evidence favors rejection of a causal relationship between the MMR vaccine and autism. The committee also concludes that the body of epidemiological evidence favors rejection of a causal relationship between thimerosal-containing vaccines and autism.” This report, coupled with the dismissal of several lawsuits as part of the Omnibus Autism Proceeding discussed in detail in both books, did little overall to quell the anti-vaccine movement.

So what will reverse the tide? “We’ve reached a tipping point,” writes Offit. “Children are suffering and dying because some parents are more frightened by vaccines than by the diseases they prevent. It’s time to put an end to this.” Offit proposes a few possible solutions, the least appealing of which is for the incidence of childhood deaths from vaccine-preventable diseases to become so high that parents once again recognize the value of vaccines. Another is eliminating the religious and philosophical exemptions that allow parents in certain states to admit their children to school without being vaccinated. Offit also urges doctors to be more proactive in explaining to parents the repercussions of foregoing vaccinations. But in the end, Offit recognizes that despite all the scientific evidence, this is really an emotional battle. Offit therefore appeals to parents to consider the greater immunological good. “When you choose for your child not to get a vaccine it’s not a choice that you’re making for yourself alone,” says Offit. “You’re making that choice for other people who may be too young to be vaccinated or who are getting chemotherapy for their cancer. They depend upon those around them to be vaccinated, and if they are not, then these are the people who are going to most likely suffer and die from diseases.” He certainly doesn’t have to convince Mnookin, who became a new father just as he was completing research for his book. ■

 Listen to a podcast of Paul Offit discussing the anti-vaccine movement on our website, www.iavireport.org