

# DEADLY CHOICES

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— HOW THE —  
**ANTI-VACCINE**  
— MOVEMENT —  
**THREATENS**  
— US ALL —

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**PAUL A. OFFIT, M.D.**



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Movement  
Threatens Us All

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*ALSO BY PAUL A. OFFIT, M.D.*

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*To Maurice Hilleman and Stanley Plotkin,  
who taught me the beauty of reason  
and the power of vaccines*

The judgment of history is without pity.

—*RAYMOND ARON*

## PROLOGUE

There's a war going on out there—a quiet, deadly war.

On one side are parents. Every week they're bombarded with stories about the dangers of vaccines. They hear that babies get too many vaccines, overwhelming their immune systems—then they watch them get as many as thirty-five shots in a span of only a few years and sometimes five at one time. They hear that vaccines cause chronic diseases. And they hear this from people they trust: celebrities like Oprah Winfrey, Larry King, Bill Maher, Don Imus, Jenny McCarthy, and Jim Carrey; elected representatives like Carolyn Maloney, Chris Smith, Dave Weldon, and Dan Burton; television correspondents like Sharyl Attkisson of *CBS Evening News*; and popular doctors like Mehmet Oz and Robert Sears. But mostly they hear it from parents like themselves—parents who claim their children were fine one minute, got a vaccine, then weren't fine anymore. Understandably, some parents are backing away from vaccines; one in ten are choosing not to give one or more vaccines. Some aren't giving any vaccines at all; since 1991 the percentage of unvaccinated children has more than doubled.

On the other side are doctors. Weary of parents who insist on individualized schedules, scared to send children out of their offices unvaccinated, and concerned that their waiting rooms, packed with unvaccinated children, are becoming a dangerous place, they're taking a stand. As many as four in ten pediatricians now refuse to see families who don't vaccinate, causing some parents to seek the comfort of doctors or chiropractors more willing to do what they ask.

Caught in the middle are children. Left vulnerable, they're suffering the diseases of their grandparents. Recent outbreaks of measles, mumps, whooping cough, and bacterial meningitis have caused hundreds to suffer and some to die—die because their parents feared vaccines more than the diseases they prevent.

Amid the confusion, another group has emerged: parents angry that unvaccinated children have put their children at risk. Some of these parents have children who can't be vaccinated. Weakened by chemotherapy for their cancers, or immunosuppressive therapy for their transplants, or steroid therapy for their asthma, these children are particularly vulnerable. They depend on those around them to be vaccinated; if not, they're the ones most likely to suffer during outbreaks.

We've come to a crossroads. During the past two decades, as more states have allowed exemptions to vaccination, population immunity has broken down. And the questions have gotten harder. Should states continue to allow parents to opt out of vaccines? Or should they step in and take away that right?

The fear of vaccines, the choice to act on that fear, the consequences of that choice, and the voices rising in protest are the subjects of this book.

## INTRODUCTION

All horror movies start the same way. Whether the scene is an abandoned cabin, a dark alley, or a peaceful cottage, one line of dialogue, quietly uttered five minutes before the carnage starts, is inevitable: “Did you hear something?”

Such is the case with certain infections in American children. On February 17, 2009, Robert Bazell, a science correspondent for *NBC Nightly News*, told the story of an unusual outbreak in Minnesota: a handful of children had contracted meningitis caused by the bacterium *Haemophilus influenzae* type b, or Hib. What made this outbreak so unusual was that it didn’t have to happen; a vaccine to prevent Hib had been around for twenty years. But most of the Minnesota children—including one who died from the disease—weren’t vaccinated. The problem wasn’t that their parents couldn’t afford vaccines, or that they didn’t have access to medical care, or that they didn’t know about the value of vaccines. The problem was that they were afraid: afraid that vaccines contained dangerous additives; or that children received too many vaccines too soon; or that vaccines caused autism, diabetes, multiple sclerosis, attention deficit disorder, learning disabilities, and hyperactivity. And despite scientific studies that should have been reassuring, many parents weren’t reassured. When the outbreak was over, one mother reconsidered her decision: “The doctor looked at me and said, ‘Your son is going to die. He doesn’t have much time.’ Honestly, I never really understood how severe the risk [was] that we put our son at.”

The Minnesota outbreak wasn’t an isolated event. In 2008 and 2009, outbreaks of Hib meningitis occurred in Pennsylvania, New York, Oklahoma, and Maine, killing at least four more children; in each case, parents had made the choice not to vaccinate—a choice that proved fatal.

Most parents today have probably never heard of Hib. But older doctors certainly remember it; so do grandparents. Before the vaccine, Hib caused meningitis, bloodstream infections, and pneumonia in twenty thousand children every year, killing a thousand and leaving many with permanent brain damage. Today’s outbreaks are a fraction of what they were in the past. But, as more parents choose not to vaccinate, more outbreaks of preventable infections are popping up across the country. And more children are needlessly harmed. The phenomenon doesn’t seem to be going away. So the questions remain: Have we heard something? Are these outbreaks just a blip on the radar screen? Or do they represent a deeper, far more serious problem?

Hib isn’t the only concern. Whooping cough, measles, and mumps—diseases once easily controlled by vaccines—are also coming back.

Whooping cough (pertussis) is a devastating infection. Before a vaccine was first used in the United States in the 1940s, about three hundred thousand cases of whooping cough caused seven thousand deaths every year, almost all in young children. Now, because of the pertussis vaccine, fewer than thirty children die every year from the disease. But times are changing.

Vashon Island is a small commuter island in King County, Washington. About ten thousand people live there, mostly well educated and affluent. The island supports an elementary school, a middle school, and a high school. Although schools on Vashon Island look like schools in any other upscale community, one difference isn't immediately obvious. About one in seven children on the island is unvaccinated; in the middle school, it's one in four. The consequences of this choice first appeared in the early 1990s. In 1994, the children of Vashon Island suffered 48 cases of whooping cough; in 1995, the number increased to 263; by 1999, it was 458.

Although whooping cough often starts benignly, it's not a benign disease. Children with whooping cough first suffer congestion, coughing, and runny noses. Then they get the symptom that gives the disease its name. The bacterium that causes whooping cough, *Bordetella pertussis*, triggers the accumulation of thick, sticky mucus in the windpipe. Children try to rid themselves of the mucus by coughing; but it's so gummy and tenacious that it's impossible to cough up. Panicking, a child coughs and coughs—as many as twenty times in a row—without breathing in. Because these coughing spells deprive children of oxygen, many cough until they're literally blue in the face. The long-awaited breath, taken against a narrowed windpipe, creates an unmistakable high-pitched sound. Parents who hear the whoop of whooping cough never forget it.

Coughing isn't the only problem. Some children with whooping cough suffer pneumonia when pertussis bacteria travel to their lungs, or seizures when their brains don't get enough oxygen, or suffocation when mucus completely blocks their windpipes. Some cough so hard that they break ribs or so long that they become malnourished.

Although Vashon Island is an excellent example of what can happen when parents stop giving pertussis vaccine, it isn't the only example. On May 10, 2008, an outbreak of whooping cough occurred at the East Bay Waldorf School in El Sobrante, California. The Waldorf School follows the teachings of Rudolf Steiner, author of *Fundamentals of Anthroposophical Medicine*. Steiner believes that vaccination “interferes with karmic development and the cycles of reincarnation.” As a result of this philosophy, at least sixteen students, mostly kindergarteners, suffered the disease; virtually all were unvaccinated. When health officials investigated the outbreak—and discovered just how many children were left vulnerable—they did something that rarely occurs in twenty-first-century America. They closed the school until the epidemic subsided.

Pertussis outbreaks haven't been limited to Washington and California; they've also occurred in Delaware, Illinois, Mississippi, Arizona, Oregon, and Vermont. The outbreak in Delaware in 2006 prompted the Centers for Disease Control and Prevention (CDC) to issue a simple, frightening statement in its publication *Morbidity and Mortality Weekly Report*: “This age distribution is similar to that observed in the pre-vaccine era.” One city, Ashland, Oregon, has an elementary school in which not a single child is vaccinated.

Measles is also coming back.

On May 4, 2005, a seventeen-year-old unvaccinated Indiana girl boarded a plane to Bucharest, Romania. Sent on a mission by her church, she visited an orphanage and a

hospital. She didn't know that Romania was in the midst of a measles epidemic. On May 14, on the plane back to Indiana, she developed fever, cough, runny nose, and pink eye. The next day, she went to a church picnic attended by five hundred people. Although she felt ill, she was excited to share her experiences with her friends and neighbors. Neither she nor anyone at the picnic knew she had measles. On May 16, a red, speckled rash appeared on most of her body.

On May 29, two weeks after the picnic, the Indiana State Health Department received a phone call from a doctor in Cincinnati who recently had admitted a severely dehydrated six-year-old boy to the hospital. His diagnosis: measles. The doctor called health officials to tell them where the boy had been two weeks earlier: a church picnic in Indiana. The subsequent investigation was a case study in just how contagious measles virus can be. Among the 500 people at the picnic, 35 had never received a measles vaccine—31 of them (89 percent) became infected. Of the remaining 465 people, only 3 (0.6 percent) were infected. The girl who had contracted measles in Romania—after spending only a few hours in a crowd of 500 people—had managed to infect almost every person susceptible to the disease.

The Indiana outbreak was a frightening reminder of our past. Before 1963, when a vaccine was first available, measles was a common cause of suffering and death. Although most parents know that measles virus causes a rash, few know that it can also travel to the lungs and cause pneumonia or to the brain and cause inflammation (a condition called encephalitis), often resulting in seizures and brain damage. Worst of all, measles virus causes a rare disease called SSPE (subacute sclerosing panencephalitis), whereby children become progressively less able to walk, talk, or stand. Invariably they develop seizures, lapse into a coma, and die; despite heroic supportive measures, no child has ever survived SSPE. Before the vaccine, measles infected as many as four million American children, causing a hundred thousand to be hospitalized and five hundred to die every year.

Following the measles outbreak in Indiana, health officials at the CDC did everything they could to warn parents about the seriousness of the disease. They issued media alerts, health advisories, talking points, and educational materials, all with the hope that the alarm sounded in Indiana would be heard. But their warnings were ignored.

On January 13, 2008, a seven-year-old unvaccinated boy flew back to his home in San Diego after a family vacation in Switzerland. Nine days later he developed cough and a runny nose. His parents, who thought he had only a cold, sent him to school. But his illness worsened. The next day, the mother brought the boy to the doctor's office, where he sat in the waiting room with other children. The doctor, unsure of the diagnosis, sent the child to a testing laboratory at a local hospital. Later that day, the boy was taken to the hospital's emergency room with a fever of 104 degrees and a worsening rash. Because none of the attending doctors had considered measles, isolation precautions were never used in the doctor's office, the testing laboratory, or the hospital.

Between January 31 and February 19 of that year, other children started getting sick: the boy's two siblings, several of his classmates, and three children who had been

sitting in the doctor's waiting room. Again, the measles virus showed its remarkable ability to find susceptible children. Every child infected by the boy was unvaccinated. Of the three children who caught measles in the doctor's waiting room, all were too young to have been vaccinated; one was hospitalized with severe dehydration; another traveled by plane to Hawaii while contagious. The measles outbreak in California shouldn't have been surprising. In 2008, the parents of ten thousand California kindergarteners chose not to vaccinate their children.

California wasn't the only state to suffer a measles outbreak. Thirteen other states—Illinois, Washington, Arizona, Hawaii, Wisconsin, Michigan, Arkansas, Georgia, Louisiana, Missouri, New Mexico, Pennsylvania, and Virginia—as well as the District of Columbia succumbed. When it was over, 140 children, almost all of them unvaccinated, had been infected; 20 were hospitalized. It was the largest single measles outbreak in the United States in more than a decade.

The Indiana and nationwide outbreaks shared one important feature: in both cases, the first infection occurred outside the United States. This isn't unusual. Every year about sixty people traveling from countries where immunization rates are lower, such as Switzerland, Austria, Ireland, Israel, the Netherlands, Japan, and the United Kingdom, enter the United States with measles. Indeed, all of these countries continue to suffer measles outbreaks. But the situation in 2008 was different; this time measles spread from one unvaccinated American child to another to another. The problem wasn't that national immunization rates were low; they were actually quite high. The problem was that certain communities had so many unvaccinated children that infections could spread unchecked.

Perhaps most disturbing was an outbreak of mumps among Hasidic Jews in New York and New Jersey—an outbreak that showed just how much we depend on one another for protection.

In June 2009, an eleven-year-old boy traveled to England and caught the mumps. At the time, thousands of British children were infected with mumps, primarily because their parents were afraid that the measles-mumps-rubella (MMR) vaccine caused autism. On June 17, the boy flew back to New York, attended a summer camp for Hasidic Jews, and started a massive epidemic. By October, two hundred people had been infected; by November, five hundred; and by January 2010, fifteen hundred. When it was over, mumps was found to have caused pancreatitis, meningitis, deafness, facial paralysis, or inflammation of the ovaries in sixty-five people; nineteen were hospitalized.

The mumps outbreak in 2009 showed that even vaccinated people are at risk. In order to stop the spread of infections, a certain percentage of the population needs to be vaccinated, a phenomenon known as population or herd immunity. People who aren't vaccinated or who can't be vaccinated will be protected when surrounded by a highly vaccinated group, much like a moat safeguards a castle. The fraction of the population that needs to be vaccinated to provide herd immunity depends on the contagiousness of the infection. For highly contagious infections—such as measles or pertussis—the immunization rate needs to be about 95 percent. For somewhat less contagious infections—like mumps and rubella—herd immunity can be achieved with

immunization rates around 85 percent. Although 70 percent of the Hasidic Jews in the mumps outbreak of 2009 were vaccinated, the proportion of those protected was actually lower. That's because no vaccine is 100 percent effective. For mumps, about 88 percent are protected after two doses. Therefore, although 70 percent were immunized, only 62 percent were protected, well below the rate needed to stop the spread of mumps.

The epidemic among Hasidic Jews wasn't an isolated event. Three years earlier, in 2006, mumps had swept across the Midwest, infecting more than sixty-five hundred people, mostly college students.

The mumps epidemics of 2006 and 2009 proved that even vaccinated people might not be protected if vaccination rates aren't high enough.

Outbreaks started by travel outside the United States won't be limited to measles and mumps.

In 2003, rumors circulated in Nigeria that polio vaccine caused AIDS and made young girls infertile. Vaccination programs came to a halt. By 2006, polio originating in Nigeria had spread to twenty previously polio-free countries in Africa and Asia—more than five thousand people were severely and permanently paralyzed. “Such large-scale polio outbreaks haven't been seen in quite a long time,” said Tammam Aloudat, a senior health official at the International Red Cross. Walter Orenstein, deputy director for the Gates Foundations' Global Health Program, saw a parallel with the U.S. measles outbreaks of 2008. “Polio is only a plane ride away from the United States,” said Orenstein. “If we let our guard down, if our immunization coverage drops, there is certainly the possibility of a polio outbreak.” Orenstein doesn't think it will end with polio: “Diphtheria could also come back. Any of them can. Because aside from smallpox, every other one of these infections is either in the United States or close to our borders.”

In the early 1900s, children routinely suffered and died from diseases now easily prevented by vaccines. Americans could expect that every year diphtheria would kill twelve thousand people, mostly young children; rubella (German measles) would cause as many as twenty thousand babies to be born blind, deaf, or mentally disabled; polio would permanently paralyze fifteen thousand children and kill a thousand; and mumps would be a common cause of deafness. Because of vaccines, all these diseases have been completely or virtually eliminated. But now, because more and more parents are choosing not to vaccinate their children, some of these diseases are coming back.

How did we get here? How did we come to believe that vaccines, rather than saving our lives, are something to fear? The answer to that question is rooted in one of the most powerful citizen activist groups in American history; founded in 1982, it is a group that, despite recent epidemics and deaths, has continued to gain followers in both the United States and the world.

# CHAPTER 1

## The Birth of Fear

If you say in the first chapter that there is a rifle hanging on the wall, in the second or third chapter it absolutely must go off.

—S. SHCHUKIN, *MEMOIRS* (1911)

Frederick Wiseman was born on January 1, 1930. After graduating from Williams College and Yale University Law School, Wiseman became a law professor at Boston University. Then he decided to make movies. For the next thirty years Frederick Wiseman was the most inventive, most reviled, most controversial, and most influential documentary filmmaker in America.

Wiseman's first film—released in 1967—was his most powerful. Called *Titicut Follies*, it was a stark depiction of life inside the walls of Bridgewater State Hospital for the Criminally Insane. Wiseman showed prisoners being hosed down, force-fed, and tortured by an indifferent, bullying staff. In one scene, a physician takes a long tube and inserts it into a prisoner's nose. Then he attaches the tube to a funnel, fills it with thick, dark fluid, and stands precariously on a chair, a cigarette dangling from his mouth. A guard mockingly shouts, "Chew your food, Joey." The viewer is at once sickened by the degradation of force-feeding and captivated by the cigarette ash dangling over the funnel.

*Time* magazine called *Titicut Follies* a "relentless exposé of a present-day snake pit." Vincent Canby of the *New York Times* wrote that the film made "*Marat/Sade* look like *Holiday on Ice*." And one theatrical poster warned, "Don't turn your back on this film ... if you value your mind or your life." *Titicut Follies* was so hard to watch—so unblinking, so unsettling, so unfailingly detailed—that days before its debut at the New York Film Festival, Massachusetts Superior Court judge Harry Kalus ordered the

state to seize all copies, writing: “No amount of rhetoric, no shibboleths of ‘free speech’ and the ‘right of the public to know’ can obscure or masquerade this pictorial performance for what it really is—a piece of abject commercialism, trafficking in the loneliness, on the human misery, degradation and sordidness in the lives of these unfortunate humans.” In 1968, *Titicut Follies* was the first and only film in the United States ever to be banned for reasons other than obscenity or national security. Twenty years would pass before the movie was shown to the American public.

The modern American anti-vaccine movement was born on April 19, 1982, when WRC-TV, a local NBC affiliate in Washington, D.C., aired a one-hour documentary titled *DPT: Vaccine Roulette*. Although Frederick Wiseman wasn’t involved in a single aspect of the film, his influence on the writer and producer, Lea Thompson, was apparent. *Vaccine Roulette* contained the sad, haunting images of *Titicut Follies*, except that this time, instead of inmates degraded by prison guards, the camera focused on children—twisted, withered, disabled children—irreparably damaged by a vaccine. (Although Lea Thompson referred to the vaccine as DPT, doctors called it DTP because the vial read “diphtheria and tetanus toxoids and pertussis vaccine.”)

*Vaccine Roulette* opens with Lea Thompson standing in the middle of a newsroom, staring straight into the camera. Her tone is grim, her voice unwavering. “DPT,” she begins, “the initials stand for diphtheria, pertussis, tetanus: three diseases against which every child is vaccinated. For more than a year we have been investigating ‘P’: the pertussis portion of the vaccine. What we have found are serious questions about the safety and effectiveness of the shot. The overriding policy of the medical establishment has been to ag-gressively promote the use of the vaccine, but it has been anything but aggressive in dealing with the consequences. Our job in the next hour is to provide enough information so that there can be an informed discussion about this important subject. It affects every single family in America.”



*DPT: Vaccine Roulette*, which aired on April 19, 1982, ignited America’s modern anti-vaccine movement. (Courtesy of WRC-TV/NBC News.)

The next image is that of a baby screaming: a needle jabbed into her arm. “It’s a fact of life,” says Thompson. “All children must get four DPT shots to go to school. Shots we are told will keep our children healthy. Shots we are told will protect every child from a dreaded disease: pertussis. But the DPT shot can also damage to a devastating degree.” To the sound of a beating heart, the screen fills with images of children with severe mental and physical handicaps, withered arms and legs, gazing at the ceiling, drooling, seizing. Then a vial of vaccine appears behind letters spelling out “D-P-T: V-a-c-c-i-n-e R-o-u-l-e-t-t-e,” each letter accompanied by a sharp, penetrating noise, like gunshots.

“The controversy isn’t really over the fact that [brain damage] happens,” says Thompson, “but how often it happens and whether it happens often enough to deem the vaccine more dangerous than the disease itself. You don’t have to ask the Grants of Beaver Dam, Wisconsin, that question.” The next scene features a young man with emaciated, spastic legs, rhythmically shaking his head back and forth. A graphic describes his problem: “SCOTT GRANT, AGE 21, REACTION: HARSH CRY, INFANTILE SPASMS, SEVERELY DISABLED, RETARDED.” Scott’s mother, Marge, explains what happened to her son: “We had a child up to four months of age that was developing beautifully well. The doctor explained that he was giving Scott his first DPT shot. Between 12 and 14 hours [later], he gave an outburst of a very hard cry. What we learned later were infantile spasms [a form of epilepsy]. I went home and cried. Jim cried. We couldn’t believe that we could possibly have such a black future.”

“I had to start a business for myself,” said Jim Grant. “I had to be home all the time in regards to helping lift him and take care of his many needs. It’s quite a big job. We have not had a vacation for twenty-one years. We simply can’t go away. It’s impossible to go away.”

Other brain-damaged children appear—all staring blankly, all clearly struggling, all allegedly harmed by the pertussis vaccine:

“POLLY GAUGERT, AGE 7, REACTION: FEVER, UNCONTROLLED SEIZURES, BRAIN DAMAGE.” “I said that maybe she should not have this shot because it seems to me she was not quite herself,” recalled Polly’s mother. “And [the doctor] checked her all over and he said, ‘She looks okay to me,’ and then he gave her the shot. And the next morning when I was feeding her she went into a grand mal seizure.... I didn’t know what was happening. I thought she was dying in my arms.”

“ABRA YANKOVICH, AGE 2, REACTION: STOPPED BREATHING, SEIZURES, SEVERELY DISABLED, RETARDED.” “When she was four months old, on the same day that she had her vaccination, she had her first seizure,” said Abra’s mother. “She was shaking and she was turning blue and she appeared to have breathing problems. By the time we got her to the emergency room she was okay. And we told her doctor that she had had her vaccination that day. Could there be a link? He said no, she was probably just choking. Just take her home and she’ll be fine. But two weeks later she went into a grand mal seizure. She was very near dying.” The Yankoviches visited a pediatric neurologist in Chicago where they learned Abra’s fate: “We’ve been told that she probably will never walk on her own and she probably will never talk.”

“ANTHONY RESCINITI, AGE 19, REACTION: PERSISTENT CRY, FEVER, SEIZURES, SEVERELY DISABLED, RETARDED.” “Tony Resciniti, 19 years old:

he suffers a convulsion about once a day,” says Thompson. “The drugs to control [the convulsions] cost \$1,200 a year. Tony convulsed within twenty-four hours of getting the DPT shot.” Tony wasn’t the only one in his family to suffer from DTP.

“LEO RESCINITI, AGE 17, REACTION: FEVER, CONVULSIONS, SEVERELY DISABLED, RETARDED.” Thompson: “Leo Resciniti, seventeen years old: only a few hours after his first DPT shot, Leo, too, went into convulsions. His temperature soared.”

“KELLI HOLCOMB, AGE 8, REACTION: PERSISTENT CRY, STIFFNESS, SPASTIC QUADRIPLEGIC, BRAIN DAMAGE.” “Kelli Holcomb got her shots from the U.S. Army,” says Thompson. “Her parents were told nothing of the risks of the DPT vaccine.”

Doctors also weigh in. Robert Mendelsohn, a pediatrician from Chicago, says, “It’s probably the poorest and most dangerous vaccine that we now have, [and] the dangers are far greater than any doctors have been willing to admit.” Gordon Stewart, an epidemiologist from Scotland, says, “I believe that the risk of damage from the vaccine is now greater than the risk of damage from the disease.” Jerome Murphy, a pediatric neurologist from Milwaukee, says, “There is overwhelming data that there is an association. I know it has influenced many pediatric neurologists not to have their children immunized with pertussis.” One father recalls, “Dr. Millichap told us ... personally, he wouldn’t even give that [vaccine] to his dog.”

Then Thompson reveals something even more disturbing: doctors had known about the horrors of pertussis vaccine for decades. “Medical knowledge about severe reactions to the whooping cough vaccine goes all the way back to the early ‘30s,” she says. “The *Pediatric Red Book*, written by the American Academy of Pediatrics, lists high fever, collapse, shock-like collapse, inconsolable crying, convulsions, and brain damage as reactions to the DPT vaccine. Those complications are associated with varying degrees of retardation, ranging from severe brain damage, like Scott, to learning disabilities.”

Thompson ends her show on an ominous note. A young boy, having just received a vaccine, is screaming. Terrified, he reaches for his father who tries to reassure him: “It’s all right. It’s one of those things that little boys have to have. See, it’s all gone already.” The sound of a heartbeat grows louder. The little boy looks straight into the camera, worry creasing his face. It’s as if he knows that the shot isn’t “all gone”—that future horrors await him.

*Vaccine Roulette* aired two more times in Washington, D.C., and nationally on *The Today Show*; within weeks, magazines and newspapers across the country told the stories of children permanently damaged by the pertussis vaccine.

Physicians were stricken. Leonard Rome, a pediatrician in Shaker Heights, Ohio, said the program was “devastating in every pediatrician’s office. Doctors were calling each other and saying, ‘Are you still giving the pertussis [vaccine]?’” In New Mexico, Dr. James Waltner said, “Inquiries about the vaccine have increased 25 percent.” And on the West Coast, Robert Meehan, a professor of pediatrics at the Oregon Health Sciences University in Portland, said, “We have had a lot more explaining to do.” Thousands of parents called their doctors to reject the pertussis vaccine or to report a

laundry list of side effects. Many questioned all vaccines; and some, the integrity of those who gave them.

*Vaccine Roulette* started a firestorm. “The WRC-TV switchboard was melting from all of the calls coming in,” recalled the CDC’s Alan Hinman. During the furor, several parents got together and decided to do something about it—to take control of a situation that appeared out of control. The organization they formed would forever change how American parents thought about vaccines.

Kathi Williams was twenty-seven years old when she watched *Vaccine Roulette* in her one-bedroom apartment in Fairfax, Virginia. “I had taken my son into the doctor’s office for his fourth DPT shot,” she recalled. “I was a very well-educated parent. I’d read every book on childcare, childbirth, nursing; whatever book was out there I read. [But] there was never one word about vaccinations and vaccine problems. So I was horrified when I saw this show because four days prior to that my very happy, healthy, beautiful bouncy boy, who never cried, screamed his head off for over eight hours. It was a high-pitched, uncontrollable scream. In between the periods of the high-pitched crying he would fall into a very deep sleep. And then he would just wake up again like someone had pinched him and start this screaming again. My doctor told me that it was normal.” Williams asked her mother what she should do. “She said, ‘Call Lea Thompson.’”

Jeff Schwartz and his wife Donna Middlehurst watched the show from their home in Silver Spring, Maryland. Schwartz was an environmental lawyer and Middlehurst a securities lawyer. Their daughter, Julie, had received her third DTP shot in July 1981, nine months before *Vaccine Roulette* aired. On the afternoon of her shot, Jeff was holding his daughter when he noticed “a sort of startle.” The startle turned into a seizure that lasted forty minutes. Other seizures followed; when they were finally under control, Schwartz posed a question: “We asked the doctor about the DTP. And she said, ‘No, it’s actually fevers that produce these things.’” But after watching *Vaccine Roulette*, Schwartz and Middlehurst knew differently. “We said, ‘Oh my God. Now we know what happened.’” On March 25, 1984, Julie Schwartz died during a seizure. Later, Jeff lamented the irony of the DTP vaccine: “To take your daughter in to protect her and have that be the agent that destroys her.”

Barbara Loe Fisher was thirty-four years old when she watched a rebroadcast of *Vaccine Roulette* the day after it first aired. Fisher was the mother of a four-year-old son, Christian. She remembered what happened the night after he received his fourth DTP shot: “Several hours after we got home, I realized how quiet it was in the house and went upstairs to look for Chris. I walked into his bedroom to find him sitting in a rocking chair staring straight ahead, as if he couldn’t see me standing in the doorway. His face was white and his lips were slightly blue. When I called out his name, his eyelids fluttered; his eyes rolled back in his head; and his head fell to his shoulder. It was as if he had suddenly fallen asleep sitting up. When I picked him up and carried him to his bed, he was like a dead weight in my arms. In the following days and weeks, Chris deteriorated. He no longer knew his alphabet or numbers, and he couldn’t identify the cards he once knew so well. He couldn’t concentrate for more than a few seconds at a time. My little boy, once so happy-go-lucky, no longer