All Parents Should Vaccinate Their Children By: Mei Tam

Babies are born perfect. Vital. Healthy.

They represent the deepest and most cherished of our thoughts and dreams, symbolize the hopes we have for the future. There's a special bond between parent and child that's unbreakable as well as unchangeable. The moment a father first holds his daughter in his arms, feels the delicate weight, hears the tiny gurgles, imagines the life he wants to give her—the memory will last forever. Until one preventable mistake destroys everything.

Until his baby girl is gone.

She's dead. He'll never wave her down the street on her first day of school, never watch her graduate from college, never give her away at her wedding. He'll never hear her back-talk him, never listen to her complain about her hair and her nails, never give her the don't-date-until-you're-fifty lecture.

She's dead.

Tragedy strikes in the form of pertussis, a deadly disease commonly known as whooping cough. "A highly contagious bacterial disease that causes uncontrollable, violent coughing," (Pertussis 1) it usually clears up after six or so weeks. But not for infants. Infants have underdeveloped immune systems, and their bodies can't handle the strain of the *Bordetella parapertussis*. Brain damage, apnea, pneumonia, and other life-threatening complications occur, and in some cases, death results. Despite all this, the thing that will haunt parents the most, is that their child's death was preventable.

And that it wasn't their fault.

Blame lies with their neighbors, Mr. and Mrs. Smith down the street. Two upstanding citizens with a carefully arranged garden, who drive a Prius. They have a pair of seven-year-old twins named John and Jane. Their one fault, however, is that they haven't vaccinated their children.

John and Jane are home-schooled, but they visit the park often. Jane likes to play jump-rope with her friends, and John likes to build sandcastles. They are constantly in public, and their parents believe in something called herd-immunity. By assuming that the rest of the world is inoculated, they've convinced themselves that they don't need to worry about diseases such as rubella, pertussis, and hep B. They've decided vaccinations are unnecessary, but John and Jane have been lucky. They've never so much as stayed in bed with the chicken pox.

Unfortunately, the infant girl three houses down wasn't so lucky. John was a carrier for pertussis, and he suffered from a mild version of it, a light cough, before passing it on to his neighbor. Baby Claire is struck by apnea, cerebral hemorrhaging, and pneumonia. Her nose bleeds constantly, and her cough is as violent as it is uncontrollable.

She's dead within the week.

So while her father agonizes over his loss, yearns and mourns for the daughter he lost before he really knew her, Mr. and Mrs. Smith, John, and Jane continue their lives undisrupted in Suburban Utopia.

Nobody wants to contract diseases. Diseases are preventable by inoculation.

Inoculation has decreased disease rates, especially in modernized nations such as the

United States. There's an obvious trend that shows the benefits of immunizing infants and children. Not only does it save the lives of those that receive the vaccines, but it also protects those that are too young or too weak (such as cancer patients who have gone through chemotherapy) as well.

Unfortunately, immunization is not required by law.

There's a fine line between what the government can and can't force you to do, but I draw that line firmly behind mandatory-vaccinations. Mr. and Mrs. Smith are just as culpable for Claire's death now as they would've been if they'd stabbed or shot her. If they'd taken five minutes at the doctor's office to say "I want my children to be vaccinated", Claire would be alive.

Statistics have shown over and over how vaccinations have saved countless lives. The eradication of smallpox through immunization has revolutionized America and the world with the millions of people who can now breathe easy, knowing that they've dodged a medical bullet. Of course, there are side-effects involved with each vaccination, but when compared to the thousands of lives that have been saved, it's obvious that there's no excuse for not inoculating children. History and its recordings and statistics have firmly shown that all parents should vaccinate their children.

According to Dr. Saad B. Omer, studies have shown that "deaths have dropped because of vaccination, a 68 percent decrease from 2000 to 2006" (Steinhauer). If we're to analyze Dr. Omer's words, then it is clear that there is a direct correlation between inoculation and a healthier population. Therefore, it is obvious, as pediatrician Steven P. Shelov says, that "it would be actual malpractice and poor public-health philosophy and

practice to consider not immunizing our children against the potentially deadly infectious diseases" (Schroeder B).

The diseases he so zealously warns us about include polio, rubella, measles, mumps, whooping cough (pertussis), and other supposedly eradicated diseases that are simply waiting for an opening to return. Alice Park, a reporter for *TIME*, cautions that "it's possible that once rampant diseases...will storm back" (Park). Because so many parents don't realize that these diseases aren't completely gone, they come to the conclusion, the *wrong* conclusion, that these illnesses aren't a threat to their children. Consequently, when they turn down vaccinations, they have made both their children and other members of society susceptible to infection.

There is a belief of something called "herd immunity" that is commonly followed by anti-vaccination supporters. Merriam-Webster dictionary states that herd immunity is "a reduction in the probability of infection that is held to apply to susceptible members of a population in which a significant proportion of the individuals are immune because the chance of coming in contact with an infected individual is less" (Merriam). In more absorbable terms, herd immunity is the reduction of risk to un-immunized people through the inoculation of the rest of the population. If the people around you are protected against a disease, then they can not contract it; therefore, they also can not pass it on to you.

With this questionable belief firmly lodged in their minds, anti-vaccination supporters refuse the routine booster shots for their infants and toddlers. "There are currently 11 vaccinations that children are given before they are two years old, which are given in as many as 16 doses" (Schroeder A). These shots protect against

everything from the chicken pox to diphtheria. Unfortunately, "some parents do not feel that they should be required to have their children immunized" (Schroeder A). This comes not so much from the misconceptions they have about herd immunity, but also the intense dislike for the government's interference in their children's lives.

In the United States, all children must be up-to-date on all their vaccinations and booster shots before they are allowed to enter public school. This is an attempt to eradicate any diseases that would reach epidemic proportions when children are in such close contact for extended periods of time. There are, of course, certain people who are exempt from this rule due to religious beliefs, though they are few and far in between. More commonly, there are those who not just reject inoculation, but fear it as well.

It is a common news-headline in modern day: "Could Vaccination Lead to Mental Retardation?" Recently, there have been studies that supposedly show a link between the MMR (measles, mumps, and rubella) vaccination and diseases such as autism. It is true, though coincidental, that there was a spike it autism rates at the same time that the MMR vaccine came into common use, but Pediatrician Steven P. Shelov assures us that there has been no proven link between vaccinations such as the MMR vaccine and autism or other ailments such as sudden infant death syndrome (SIDS) or multiple sclerosis (Schroeder B).

The possible mental side-effects are not the only things that worry parents however. Some simply believe that it is too dangerous to inject their children with hepatitis B, even a weakened or dead strain of it. This induces widespread fear, when, fact, Dr. Shelov also comments that disease "rates have declined during the same time

period that the hepatitis B vaccine has been recommended for routine immunization" (Schroeder B). This shows that the fears antivaccine supporters hold are trivial and untrue. Unfortunately, not all parents seem to realize that. And, when those few children are unvaccinated, they "increase the risk of exposing everyone in the community" (Steinhauer) according to Dr. Omer.

Besides the health-related issues revolving around vaccination, there is also a financial side. Although many vaccines are covered by Medicaid or Medicare, or even by the healthcare providers themselves, there are minimal "administrative fees". Though small, some families still consider this too high a price to pay (Vaccines). However, a recent study has shown that, because of "routine childhood immunization, [there were] 33,000 deaths prevented [and] \$43 billion saved" (ECBT).

Of course, all parents are in the mindset of "what about *my* children? I need to take care of *my* child's needs before I think about anything else". There's nothing necessarily wrong with this frame of mine, at least until it affects other people's children. Parents don't realize that their decisions have an impact on not only their families, but on the community as a whole as well. "There is little evidence to support the claim made by antivaccine activists that the battery of shots kids receive can damage the immune system rather than strengthen it" (Park), and yet people *still* don't understand. They don't vaccinate their children, and risks of epidemic proportions are introduced into the community.

And, even if these risks don't develop into a widespread illness, the local effects are just as devastating.

Claire was born perfect. Vital. Healthy.

She was her father's pride and joy, and the first moment he held her in his arms, he knew he'd do whatever was necessary to protect her from everything that could possibly hurt her. He treated visits to the pediatrician like they were the pilgrimage to Jerusalem, and treated his infant-care book like it was the very tablet on which the Ten Commandments had been inscribed. He bought only the best quality clothes, and did taste tests before feeding her. He did everything in his power to keep his baby girl safe and happy.

His efforts were in vain.

Down the street, Mr. and Mrs. Smith, after watching a special on TV about the supposed dangers of vaccination, quickly canceled their inoculation-appointment at the doctor's office. Confidant in herd-immunity, they opted out of one of the most basic forms of protection they could offer John and Jane. And then, of course, they took their children to the park to celebrate what they called their "life-saving decision". They met with their good neighbor and his daughter Claire by the swings.

So while the parents discussed the tax increases and how Obama was doing in office, the *Bordetella parapetussis* bacteria was traveling from John's runny nose to his hand, to Claire's arm. The next time Claire stuck her thumb in her mouth, she was infected. Days passed with no effects, when suddenly, Claire started an unstoppable cough that was deadlier than any of her family could've imagined.

She died within the week.

Nobody wants to contract diseases. Diseases are preventable by inoculation. Supposedly common knowledge, these facts, especially the latter, are absent in the

minds of a dangerously large part of the population. They lack the insight necessary for connecting the supposed benefits of immunization with actually immunizing their children. And, conversely, they've created a bridge between poor health and inoculations that, in reality, doesn't exist.

Thousands of lives are saved each and every year by vaccinations, a number that we should be working to increase, not decrease. In order to achieve this, we must educate current and future parents about the health risks to not just their children, but the community as a whole if they choose to believe false rumors and reject immunization.

Children represent not just the future for society, but the present for their families. There's a tie between infants and their mothers, daughters and their fathers that needs to be preserved at all costs. Disease is one of the deadliest threats to this irreplaceable bond, but it is also one of the easiest to prevent. A simple shot, a five-minute visit to the pediatrician—that's all it takes. It will save lives, improve the public health. Listen to doctors and pediatricians and the statistics they support; make the choice not just for you, but for your child and your community. Remember baby Claire. And, most importantly, always vaccinate your children.

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