

*Special
Edition*

VACCINE-PREVENTABLE DISEASE
Human Papillomavirus (HPV)

By Rachel M. Cunningham, M.P.H., and Julie A. Boom, M.D.

Photography by Paul Vincent Kuntz and Allen S. Kramer

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This book is dedicated to the individuals and families portrayed herein,
whose stories serve as a daily reminder of the purpose of our work
and whose courage inspires us to do what we do.

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“When meditating over a disease, I never think of a remedy for it, but, instead, a means of preventing it.”

– LOUIS PASTEUR



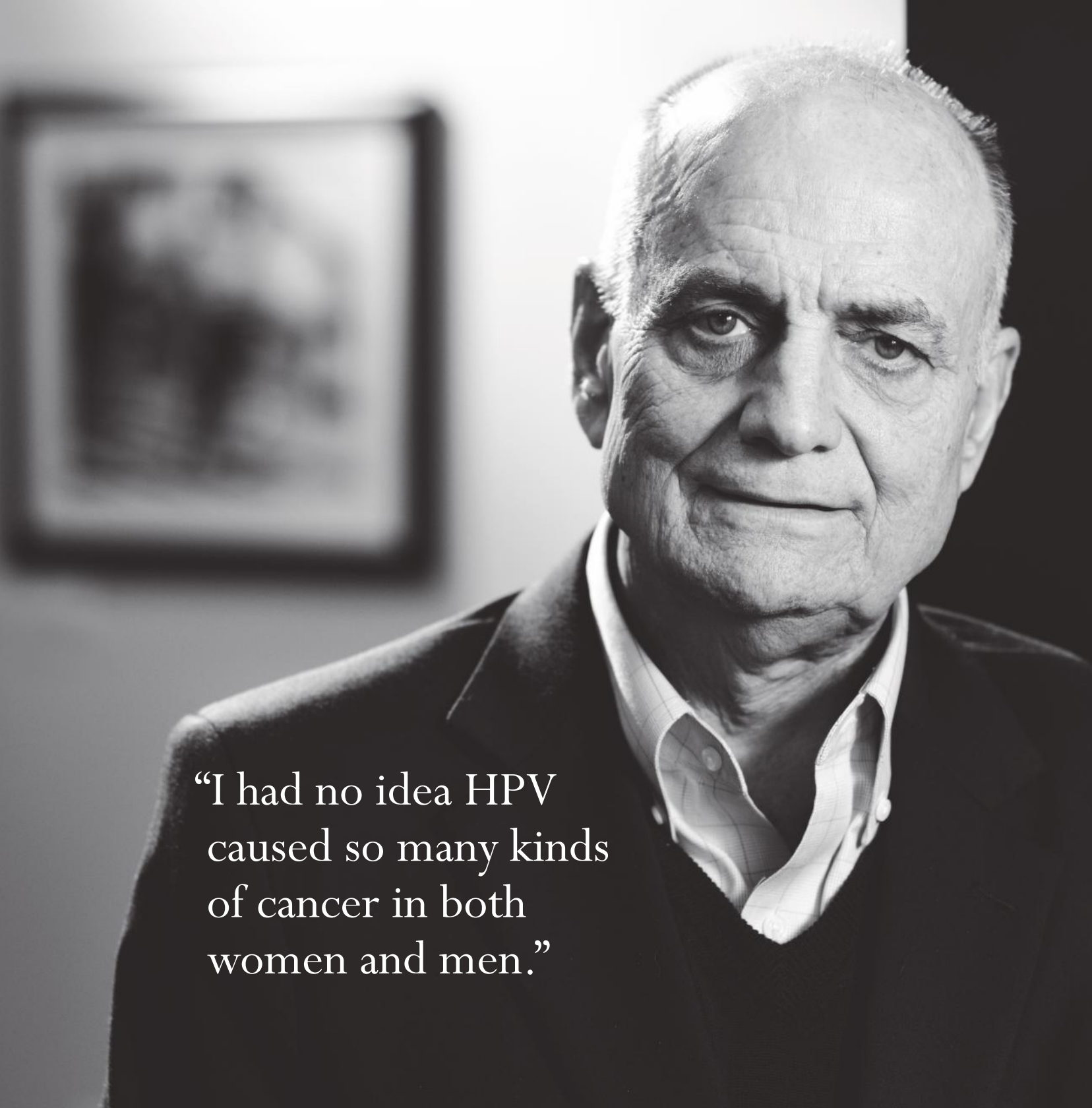
INTRODUCTION

Vaccines are one of the most significant public health achievements of all time. Prior to the availability of vaccines, diseases such as polio and many others were common childhood illnesses that impacted the lives of millions. Those of us who work in public health and medicine are acutely aware of the impact vaccines have had on our children’s health and the critical role they continue to play in society.

In 2006, we were dealt a game-changer. A vaccine became available that allows parents to protect their children against a disease that causes more than half a dozen different types of cancers including cervical, head, neck, anal, penile, vaginal and vulvar. This disease – human papillomavirus, or HPV – currently affects 79 million Americans and causes 27,000 new cases of cancer in the U.S. each year. Suddenly, we became the generation that could reduce or end HPV-related cancers. And yet, sadly, many parents are declining this life-changing vaccine. Coverage rates for HPV vaccination are dismally low compared to other vaccines recommended at the same age, in large part due to a lack of parental understanding about the disease and the vaccine.

As HPV is a sexually transmitted infection, it may seem unnecessary to vaccinate your adolescent. Some parents fear that vaccinating adolescents is akin to giving them permission to engage in sexual activity. Some parents believe that the vaccine is not needed if their child remains abstinent until marriage. Many parents are simply unaware of the long-term implications of HPV infection and that it can lead to precancerous and cancerous lesions in the head, neck and genital regions. Other parents believe the unfounded rumors that the vaccine is harmful, ineffective or too new to ensure that it is safe. All of these fears and myths are based on inaccurate information and only serve to rob parents of the opportunity to give their children a life free from a cancer-causing virus. At the end of the day, this vaccine is much more than a means to prevent a sexually transmitted infection. Simply put, this vaccine prevents cancer.

We created this book to show the real impact of HPV-related diseases. The individuals portrayed herein have courageously shared their stories, and we are honored to pass them on to you in the hopes that they will serve as a reminder of the importance of HPV vaccination. We are on the brink of history, and we’ve been given the chance to change not only the lives of our children but those of generations to come.



“I had no idea HPV caused so many kinds of cancer in both women and men.”

MICHAEL TERRY

In November 2012, Michael Terry, a healthy 65-year-old male, discovered a lump in his throat. Over the next year, he underwent three biopsies and two endoscopies before being diagnosed with throat cancer caused by HPV. By that time, the cancer had metastasized into his lymph nodes.

Michael began treatment at MD Anderson Cancer Center in Houston, TX, where he underwent eight weeks of chemotherapy followed by three months of both radiation and chemotherapy. The radiation caused severe skin peeling and open sores on his face. He was unable to swallow and had to have a feeding tube for more than two months. He lost nearly 50 pounds, suffered from relentless insomnia and headaches, and lost most of his sense of taste and smell.

Sadly, Michael was only in remission for two months before his cancer returned. He had neck surgery in August 2014 where a tumor was removed from his throat and his neck was rebuilt using a portion of his chest muscle. He underwent another six weeks of chemotherapy and radiation. Finally, in March 2015,

Michael was again placed in clinical remission. Today, he has a loss of feeling in his fingers and toes and continued loss of function in his salivary glands, thyroid and swallowing abilities. He also has permanent lung damage leaving him at increased risk for pulmonary complications. Going forward, Michael will undergo check-ups every three to six months for the next six years.



Michael and his wife, Joan, have learned a lot about HPV and its long-term effects. “HPV is so common that most people will encounter it at some point in their life, yet there is very little awareness of it. I had no idea HPV caused so many kinds of cancer in both women and men.”

As the son of Dr. Luther Terry, the renowned former surgeon general who published the 1964 landmark report on tobacco and health, Michael has a deep-seated appreciation for preventive health measures, including vaccines. “I have this disease because the vaccine wasn’t available for me. But it is available now, and it is essential that everyone be vaccinated. It’s a vaccine that prevents cancer. It’s as simple as that.”



“I never want my daughter to experience the heartache of cervical cancer.”

EMILY ELLIOTT

Emily Elliott distinctly remembers the day she found out she had HPV, the most common sexually transmitted infection which can cause genital warts, cervical cancer and other cancers. She was 26 years old, living alone in Denver, and she felt confused, anxious and afraid.

She soon underwent a cone biopsy procedure to remove abnormal tissue in her cervix. “I recall coming home and lying on the floor in pain. It was scary,” Emily said.

Although the procedure was a success, and Emily went on to get married and give birth to two healthy children without any complications from HPV, the infection resurfaced ten years after her initial diagnosis. Initially, Emily underwent cryotherapy – a procedure that destroys abnormal tissue by freezing it; however, the treatment was unsuccessful. After undergoing six weeks of topical chemotherapy, Emily’s Pap smears finally returned to normal. She now gets Pap smears every three to six months to ensure her cervical tissue remains healthy.

Emily hopes that sharing her story will help people realize how deeply HPV can affect one’s life. She also hopes to increase awareness of how common HPV is. Nearly 80 million Americans are currently infected with the virus.

Fortunately, HPV can now be prevented through vaccination. Several HPV vaccines are licensed in the U.S. which protect against 80-90 percent of cervical cancers. It is recommended that adolescents 11 to 12 years of age get vaccinated. Although the vaccine was not available for Emily, she plans to immunize both her children when the time is right.



“I never want my daughter to experience the heartache of cervical cancer or of not being able to have a child because of complications from HPV,” Emily says. “And I never want my son to get HPV-related cancer or pass this disease to someone else. It’s my role as a parent to do everything I can to protect my children, and that means immunizing them against HPV and HPV-related disease.”



“My illness is always on my mind.”

JACKIE GOLSON

Jackie Golson has been living with the effects of HPV-related cervical cancer for nearly 30 years. First diagnosed with HPV at 30 years old, she underwent cryotherapy, a procedure that destroys abnormal cells by freezing them. Three years later, the HPV progressed to cervical cancer, and she had a radical hysterectomy.

Sadly, this treatment was also unsuccessful, and two years later, at the age of 35, Jackie was diagnosed with recurrent cervical cancer. Doctors discovered a small mass behind her kidney where the cancer had spread. Jackie underwent surgery again and, this time, radiation as well.

Now 60 years old, Jackie continues to deal with complications from the disease and treatment. She has had multiple subsequent surgeries including one to remove her rectum, which left her living with a colostomy bag. She has also suffered from two fistulas, a rare complication of advanced cervical cancer. One of the fistulas, or abnormal connections between two areas of the body, has leaked outwardly for the last seven years, severely limiting her ability to function normally. She was unable to continue

working due to her health issues and recently retired from her career as a teacher.

As a single mother, the emotional and financial stress of Jackie’s experience was overwhelming. She has battled depression, suicidal thoughts and anger, seeking counseling to help manage her emotions. “My diagnosis

with HPV and cervical cancer changed the trajectory of my life and continues to impact every aspect of it. My illness is always on my mind, and I will never be able to escape it.”

Having grown up in a period where polio, measles and mumps were widespread, Jackie strongly believes in the protection vaccines provide. “To me, protecting your children from HPV is no

different than protecting them from those diseases.”

She also has an acute understanding of the risk parents take when they choose not to vaccinate their children against HPV. “I want parents to understand what can happen if their children are not protected against HPV. I wouldn’t wish my life on my worst enemy, and would do anything to be able to turn back time and have the chance to be vaccinated.”





“I don’t understand why more people aren’t talking about this.”

FIDENCIA MOCTEZUMA

A single mother, Fidencia Moctezuma was diligent in maintaining her health which included getting her annual Pap smear. Unfortunately, in 2013, when Fidencia went in for her annual Pap smear, her doctor noticed an abnormality in her cervix. She underwent an ultrasound, a biopsy and a Loop Electrosurgical Excision Procedure (LEEP) to remove the abnormal cervical tissue and provide further diagnosis. Soon after, Fidencia learned she had cervical cancer caused by HPV.

Fidencia was overwhelmed with fear and worry about what would happen to her 11-year-old daughter, Cassandra, if she was unable to care for her. She underwent a hysterectomy that resulted in a long and painful recovery during which she was unable to work for two months. Fidencia recalls the financial stress of not being able to work and wondering how she would support herself and her daughter. Fortunately, her older son was able to support them during this difficult time.

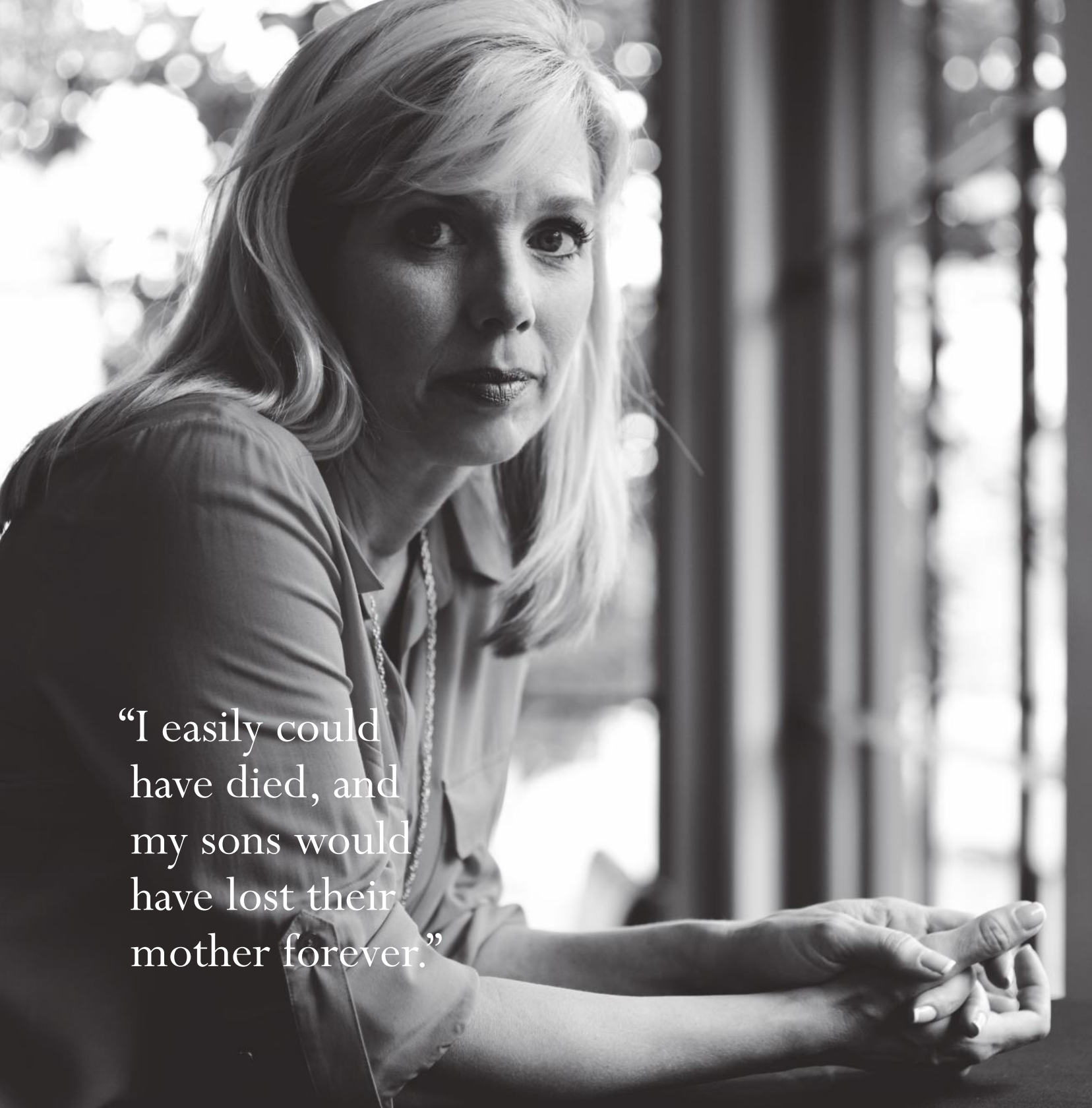
Unfortunately, however, Fidencia’s cancer diagnosis caused a great deal of stress on Cassandra. Following Fidencia’s surgery, doctors evaluated Cassandra and

found she was experiencing trauma due to concern about her mother’s illness. Even today, two years after her mother’s diagnosis, Cassandra continues to struggle. She has difficulty concentrating in school, her grades have suffered, and she still worries about her mother’s health constantly despite her prognosis being good.



Fidencia shares her story with the hopes of helping others avoid her experience, particularly the impact it has had on her daughter. “Parents need to vaccinate their children so that they don’t have to go through what I did. Or what my daughter did in finding out that her mom had cancer.”

Since her diagnosis and surgery, Fidencia has worked hard to educate the women in her community about the devastating effects of HPV and the importance of the HPV vaccine. “There is a huge lack of information, and I don’t understand why more people aren’t talking about this,” she says. “We have a vaccine to prevent cancer. I vaccinated my daughter the first chance I had. Now she and her children will not suffer as I have.”



“I easily could have died, and my sons would have lost their mother forever.”

LINDA RYAN

In 2004, Linda Ryan was diagnosed with cervical cancer caused by HPV. A healthy, active mother of two, Linda never even knew she had HPV. At the time of her diagnosis, her sons, Ethan and Matthew, were only 2 and 5 years old. Linda soon underwent a radical hysterectomy and was given a clean bill of health.

year. Given how frighteningly poor her prognosis once was, she feels fortunate to be alive. One of the hardest things for Linda to accept was the hysterectomy and the fact that she was unable to have more children. “As a woman, it was devastating to have that ability taken from me,” she says.

Sadly, however, the cervical cancer returned. In 2011, just four weeks after running a marathon, Linda found lumps in her neck and pelvic area. She was diagnosed with recurrent cervical cancer and given a slim chance of surviving. She then endured eight rounds of chemotherapy over a period of six months. Linda recalls the cancer treatment as a “horrible period of time.” She endured fatigue, nausea and blisters and sores in her mouth.



She shares her story in the hopes that other parents will protect their children from suffering as she has. “I lost a year of my sons’ lives due to my treatment. I easily could have died, and they would have lost their mother forever. I don’t want other parents to risk that for their children.”

Finally, in March 2012, Linda was told she was cancer-free. Since then, she has undergone a pelvic exam every four months and a Pap smear once a

Today, Linda’s adolescent sons are up-to-date on their HPV vaccines, and she is thankful for the opportunity to protect them. “HPV causes cancer, and now we have the tools to prevent it. I’m protecting my sons and want other parents to do the same. Why risk cancer when we don’t have to?”



“I consider myself one of the lucky ones.”

JANE WAGNER

In 1991, Jane Wagner was 36 years old, married and a mother of three young children when she went in for a routine Pap smear that changed her life. Her Pap showed cervical dysplasia, or abnormal cells of the cervix, caused by HPV.

Over the next two years, Jane underwent several biopsies, a Loop Electrosurgical Excision Procedure (LEEP) and a conization to remove abnormal cervical tissue. Despite undergoing these procedures, she continued to have abnormal Pap smears. Finally, in 1993, she underwent a partial hysterectomy during which the doctors discovered stage I cervical cancer. Jane remembers the long and painful recovery from the surgery, particularly how it left her unable to care for her children, ages 5, 9 and 11, for nearly two months.

Following her hysterectomy, Jane continued to receive Pap smears every three to six months for several years until she finally received a clean bill of health.

More than 20 years later, the memory of her experience continues to haunt her, inspiring her to share her story with the hopes of preventing other women from suffering the same outcome. “I consider myself one of the lucky ones. I was symptom free for many years until suddenly, HPV changed my life,” says Jane. “I was blessed to have three healthy children,

but many women are unable to have children because of complications from HPV.”

Today, many of the cancers caused by HPV, including cervical cancer, could be prevented with vaccination. The HPV vaccine became available to young females in 2006, and Jane was eager to immunize both of her daughters.

“I’m grateful for any opportunity to protect my children, and vaccines are one of the best ways I can do so. It is something we can all do for our children and their future spouses. I never want one of my daughters to experience what I did, especially when it is preventable.”





“Losing my voice made things a lot tougher for me. But it’s also made me stronger and made me want to do better for myself.”

DENESTEL MBIANDA

Denestel Mbianda was just 8 years old when he first heard of HPV. He had been rushed to the emergency room after struggling to breathe, and it was there that doctors discovered benign tumors in his throat. Denestel was diagnosed with recurrent respiratory papillomatosis caused by HPV transmitted by his mother during birth. The condition causes tumors to repeatedly grow in the respiratory tract and requires extensive medical and surgical treatment. It’s a heavy burden for anyone to bear, especially a child.

For the first few years after his diagnosis, Denestel underwent surgery every two to three months until the recurrent tumor growth slowed and he only needed surgery every four to five months. Now 21, Denestel only needs surgery once a year. In total, he’s undergone more than 65 surgeries since his diagnosis. By the time he was 12 years old, he lost his voice due to permanent damage to his vocal cords and can now only speak in a whisper.

Denestel’s adolescence was difficult, and he was frequently bullied by his peers because of his voice. He struggled to confidently pursue activities because

he knew he would require special accommodations. He is unable to play sports because it becomes too difficult to breathe. Even simple activities, such as going to loud restaurants and interacting in class with his peers, are often difficult. Today, Denestel is a junior in college, and he is still sometimes ridiculed by those who don’t understand why he has no voice.



HPV has had a profound impact on his life, and he is eager to share his story. “Losing my voice made things a lot tougher for me. But it’s also made me stronger and made me want to do better for myself,” Denestel says. “I may not have a voice, but I hear my own inner monologue loud and clear. I want parents to vaccinate their kids so they stay healthy and don’t have to go through

what I’ve gone through.” Despite his losses, Denestel is hopeful for the future, particularly that the tumor growth will stop completely and surgeons may one day be able to reconstruct his vocal cords, allowing him to regain his voice. In the meantime, he continues to encourage parents. “This can be avoided. Please make sure your children get all their vaccines at every stage of their lives.”



“Do not hesitate to get the vaccine. It saves lives.”

JERRY PILLANS

Jerry Pillans will never forget when his wife, Kathleen, first reported feeling sick. A visit to her physician quickly escalated when a mass was discovered in her pelvic area. Soon after, Kathleen was diagnosed with advanced cervical cancer caused by HPV.

After being diagnosed in 2008, Kathleen underwent surgery to remove her bladder where the cancer had spread. Multiple surgeries, including a radical hysterectomy, as well as chemotherapy and radiation, followed. In 2009, Kathleen was briefly placed in remission, but by November of that year she found out that the cancer had returned and it had spread to her colon and rectum.

Kathleen spent the next 14 months undergoing more surgeries, chemotherapy and radiation. Jerry recalls what that time was like. “She was in a great deal of pain, and it was a tremendous struggle for all of us, but especially her.”


Tragically, on January 4, 2011, at 50 years old, Kathleen lost her battle with cervical cancer and passed away, leaving Jerry and their 19-year-old daughter, Kaitlyn, to mourn.

Kathleen never had an opportunity to receive the HPV vaccine. Today, Jerry believes that the HPV vaccine has

the potential to save an entire generation from experiencing cervical cancer. “I think about what we went through and how young people today can avoid all of that if they simply get vaccinated. They would never have to worry about cervical cancer and all of the pain and suffering that it causes.”



Jerry’s memory of his wife’s experience has compelled him to urge parents to protect their children through vaccination. “Look at what we went through. Your children don’t have to go through any of that. Do not hesitate to get the vaccine. It saves lives.”



“I made a completely uninformed decision about something that was life-changing.”

CALLIE DIFRANCESCO

Callie diFrancesco was a 22-year-old college student when she received her first Pap smear. Callie expected the procedure to be routine; however, sadly, it was not. Callie’s Pap smear was abnormal and resulted in a biopsy. The biopsy revealed that the bright young college student had cervical dysplasia caused by HPV. HPV is the most common sexually transmitted infection in the United States, affecting nearly 80 million men and women. It causes genital warts, cervical cancer and several other types of cancer.

Following her diagnosis, Callie underwent her first surgery, a Loop Electrosurgical Excision Procedure (LEEP), to remove abnormal cervical tissue. For the next year, she received Pap smears every three to six months to monitor her cervical tissue. Unfortunately, one year later, Callie had another abnormal Pap which resulted in a second LEEP procedure. Following her second surgery, Callie continued to receive Pap smears every three to six months until finally, in the fall of 2013, she was deemed healthy and told to return in a year for her next Pap.

Callie says HPV created a significant amount of emotional stress and anxiety in her life. In the midst of dealing with this, she met her husband, Blake. They both worry about what the future holds, whether Callie will remain healthy, and if HPV will affect their plans to start a family.



In an unfortunate ironic twist, when Callie was 18 years old, she had the opportunity to receive the HPV vaccine and declined it. She looks back at that decision saying, “I made a completely uninformed decision about something that was life-changing.” She urges young men, women and parents not to make the same mistake.

“HPV vaccination is cancer prevention – period. Why not

take the opportunity to prevent disease, heartache and possibly death in your child’s future?”

The HPV vaccine is recommended for adolescent males and females at 11-12 years of age. The vaccine is safe, effective and provides lasting protection against most cancers caused by HPV infection.



“I thought to myself – is this it? Is this going to end my life?”

JIM PYLE

In September 2015, Jim Pyle, a healthy 65-year-old grandfather, discovered a lump in his neck. He was soon diagnosed with throat cancer caused by HPV. Jim underwent eight weeks of chemotherapy and nearly seven weeks of radiation at MD Anderson Cancer Center. “The treatment is tough to get through – it really beats you up.”

Less than a week after his last treatment, an infection spread in Jim’s mouth and the side effects from the treatments began. He suffered from severe facial swelling, thick choking mucous, painful ulcers on the inside of his mouth, skin burning and peeling, and dehydration. He was soon placed on a feeding tube due to his inability to swallow. In January 2016, another mouth infection occurred – this one worse than the first. Jim developed a large lump in his throat that became inflamed, painful and swollen. Doctors diagnosed Jim with MRSA, a serious bacterial infection, and he was hospitalized in isolation for three days.

Today, Jim is in remission but continues to suffer from painful ulcers on the inside of his mouth, swelling in his mouth and face, minimal taste function,

potential long-term lung damage, and a loss of salivary gland function. Moreover, he’s lost nearly 25 pounds due to his inability to swallow. Jim will continue to be monitored every three to six months for the next six years, and doctors are hopeful that he will regain some of his taste and salivary gland function.



Until he was diagnosed with HPV-related throat cancer, Jim and his wife, Peggy, were unaware that HPV could have such a profound impact. “I thought to myself – is this it? Is this going to end my life? It’s scary. Very scary,” Jim shares. “And we were totally uneducated and unaware that HPV could cause cancer.”

Jim and Peggy now embrace the opportunity to use this experience as a lesson for their four adult children, their 3-year-old grandson, and any future grandchildren they may have. Furthermore, they hope to persuade other parents to vaccinate and protect their children from HPV-related diseases. “After you see people like me and many others go through this terrible experience, why would you risk it for your child? HPV will impact me for the rest of my life,” Jim says. “Please vaccinate your children – protect them from cancer.”



“You never think it’s going to happen to you.”

SANDY WEXLER

In July 2012, Sandy Wexler, a pediatric nurse, appeared to be in perfect health. But when she went for a routine dental visit, a large lump was discovered in her neck. Soon after, she was diagnosed with throat cancer caused by HPV. She underwent surgery to remove the lump, followed by six weeks of proton therapy, a form of radiation. She also underwent seven weeks of chemotherapy.

The treatment for throat cancer is severe, and the side effects are extremely painful. It caused the skin on Sandy’s neck to break down, resulting in painful sores and peeling. She also had extreme difficulty swallowing, leaving her badly dehydrated. She lost 25 pounds and needed frequent re-hydration treatments. In January 2013, Sandy was declared cancer-free, but she is still living with side effects of the cancer and its treatment. She has minimal taste function, extreme dry mouth, and a partial loss of salivary gland function. She will have to have check-ups every few months for the next couple of years.

Before her diagnosis, Sandy never had any symptoms, and didn’t know she had HPV. She and her husband, Michael, a pediatrician, recall being surprised to learn that her cancer was caused by HPV. Having both worked in pediatrics for 40 years, Sandy and Michael strongly believe that vaccines save lives and have spent their careers educating parents on the importance of

vaccines. Now, having faced a cancer caused by a vaccine-preventable disease, they feel more strongly than ever that parents should protect their children.

“I don’t want any parent to one day watch their child go through what I’ve gone through when they could have prevented it. I wish I would have had the chance to be protected against

this disease,” Sandy says.

She shares her story so that parents will understand the impact of HPV and that it can affect anyone. “You never think it’s going to happen to you. And it’s scary when it does.”





“I was afraid I would never have children.”

MONICA BANES

Monica Banes was 20 years old and a single, busy nursing student when she felt unusual discomfort in her pelvic area. She visited her physician, who discovered genital warts on Monica’s cervix and performed a biopsy of the area. Monica was diagnosed with HPV.

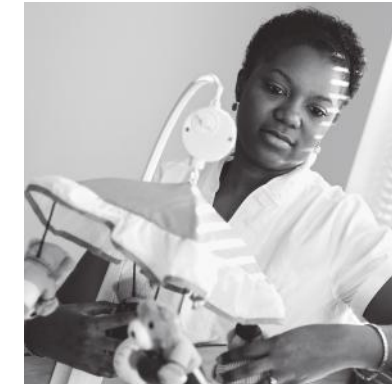
As she researched the disease, she learned that if she ever had children, she risked transmitting the disease to them. “I thought my life was over,” Monica says. “I was afraid I would never have children.”

In 2003, five years after she learned she had HPV, Monica met her husband, Derrick. They married in 2006. When they decided to have children, the couple educated themselves on how to handle the disease and went on to have two healthy baby boys. However, both pregnancies and births required caution. Monica’s cervix was checked for abnormal cells every month and just before delivery.

During her first pregnancy, abnormal cells were found and biopsied. Fortunately, the cells were non-cancerous,

and Monica went on to have a safe delivery. If abnormal cells had been present when she gave birth, Monica would have had a cesarean in order to prevent her child from coming in contact with the virus. She readily acknowledges that HPV added extra stress to both her pregnancies.

“It’s a huge worry because you don’t want to subject your children to something so dangerous,” she says.



Unfortunately, a vaccine was not available when Monica contracted HPV. If she had been given the chance, she definitely would have taken this preventative measure. Monica encourages parents to vaccinate their children to protect them from HPV and

related cancers. And she advises all girls and women to have routine Pap smears and gynecological examinations.

“Today, women don’t have to experience what I did,” Monica says. “The HPV vaccine can give them peace of mind.”

“There is no sense in anyone going through what I went through.”



KATHERINE GRIFFITH

In 1994, Katherine Griffith was a 37-year-old mother of two when she began bleeding profusely. She had a Pap smear and biopsy and was diagnosed with cervical cancer. As a result, she underwent a radical hysterectomy in which her uterus, cervix and fallopian tubes were removed. Following surgery, she underwent six weeks of radiation as well as a radium implant, a form of internal radiation that places a radioactive source directly into the affected area. For the next two years, Katherine received Pap smears every three to six months until she was given a clean bill of health.

The next 15 years passed smoothly, and Katherine believed that her cervical cancer was behind her. Sadly, however, in 2009, she began to bleed again. Katherine was diagnosed with recurrent cervical cancer, and she underwent the most extensive pelvic surgery a woman can have – total pelvic exenteration. This procedure includes removal of the vagina, bladder, urethra and rectum. Katherine recalls the moment when she realized the implications of the surgery. “I didn’t know if I could do it, but I knew that I didn’t have a choice. It was the surgery or my life.” After this life-altering surgery, Katherine still had to undergo eight weeks of radiation treatment.

As one can imagine, life after a pelvic exenteration is difficult. Katherine lives with a colostomy and ileostomy bag for intestinal waste removal. She suffers from severe lymphedema, or swelling, in her legs and requires a pump to circulate fluid throughout her legs. She frequently experiences episodes of severe intestinal discomfort, often requiring an enema for relief. As a

result of these ongoing digestive issues, she has undergone six additional surgeries and will almost certainly face more. Katherine continues to be monitored on a monthly basis.



Katherine and her husband of 38 years, Robert, feel strongly that no woman should have to experience what she has. They both proudly acknowledge that all of their grandchildren, male

and female, who are old enough have been vaccinated for HPV. Perhaps more than anyone, they recognize the importance of vaccination. “Parents need to immunize their children or they risk them losing everything. I lost my womanhood, and now I have to live with this. There is no sense in any woman today going through what I’ve gone through.”

HPV DISEASE FACTS

- HPV causes cancers of the cervix, vagina and vulva in women, cancer of the penis in men, and cancers of the anus, mouth and throat in both women and men.¹
- Every year in the U.S., 27,000 people develop cancer caused by HPV. That's one person every 20 minutes.¹
- HPV is so common that almost everyone is infected at some point. It is estimated that 79 million Americans are currently infected, and 14 million are newly infected each year.¹
- There is no treatment for HPV infection, only for genital warts, pre-cancers and cancers, with varying degrees of effectiveness.²
- Most infections cause no symptoms and clear on their own within one to two years. Persistent infection can lead to HPV-related cancers.²
- It takes approximately 20 years for an HPV infection to develop into cancer.³
- HPV causes virtually all cervical cancers, 90% of anal cancers, 70% of oropharyngeal (head and neck), vulvar and vaginal cancers, and 60% of penile cancers.⁴
- The #1 cause of head and neck cancers is HPV.⁵
- There is no screening available for HPV-related oropharyngeal cancer. By the time most individuals feel a lump on their neck, it has already metastasized.^{5,6}
- Given current immunization rates, among those whose parents refuse the HPV vaccine, approximately 2,000 will die as an adult from a preventable cancer caused by HPV.³
- The proportion of oropharyngeal cancers attributable to HPV has risen substantially in the U.S. Moreover, the overall incidence of oropharyngeal cancers continues to rise. If recent disease rates continue, the annual number of HPV-positive oropharyngeal cancers is expected to surpass the annual number of cervical cancers by the year 2020.⁷
- In rare instances, an HPV-infected mother may transmit HPV to her baby which may cause recurrent respiratory papillomatosis, the repeated growth of tumors in the respiratory tract.⁸

HPV VACCINE FACTS

- It is recommended that adolescent males and females be vaccinated at 11-12 years of age. Older males and females may also be vaccinated. Talk to your health care provider for guidance.²
- The HPV vaccine is safe, effective and provides lasting protection against most cancers caused by HPV infection.²
- HPV vaccination can prevent most of the 27,000 cases of HPV-related cancer diagnosed in the U.S. each year.¹
- The best way to prevent the spread of HPV is to vaccinate early, well before individuals might be exposed to the disease.¹
- Also, preteens have a higher immune response to the HPV vaccine than older teens, making the vaccine more effective when given at 11-12 years of age compared to after age 16.¹
- Research has demonstrated that getting the HPV vaccine does not make kids more likely to be sexually active or start having sex at a younger age.¹
- Even if you have already been infected with one type of HPV, the vaccine can still protect against other types of the disease.²
- In clinical trials for the vaccine, genital warts were reduced by 97% for females and 89% for males.⁷
- Despite coverage rates of approximately 33% in adolescent girls in the U.S., there has been a 56% reduction in the prevalence of HPV strains 6, 11, 16 and 18.⁹
- The HPV vaccine is virtually 100% effective at preventing the precancerous lesions caused by the types of HPV contained in the vaccine, which would likely prevent most cervical cancers.¹
- The HPV vaccine has been studied in more than one million women and has been found to be very safe and effective.^{1,3}

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AUTHORS' NOTE

The stories in this book are powerful examples of the importance of vaccines. Each of the individuals and families featured were brave enough to share some of their most intimate memories and experiences – all for the single purpose of saving lives.

Over and over again, in nearly every story, the individual affected was unaware that they had HPV. This is what is so very dangerous about the disease and why HPV is often referred to as “the silent killer.” Not only can someone have HPV for years, even decades, without any signs or symptoms, but when it finally does appear, it can do so in several different forms. It can present as genital warts, dysplasia, as well as multiple types of cancer including cervical and oral. Sadly, by the time this occurs, it is often too late and the consequences are devastating.

Fortunately, we now have a safe and effective tool to protect our children, not only from an infectious disease but from cancer. If there is one thing to learn from these individuals, it is that HPV vaccination prevents cancer – period. Imagine a society in which no woman was ever told she had an abnormal Pap smear and needed a hysterectomy, robbing her of the ability to bear children. Or a society in which a father or grandfather never discovered a lump in his neck due to an HPV infection he likely acquired in young adulthood.

In writing this book, we felt as though we had shared in these individuals' losses. Meeting these families and hearing their stories has irrevocably changed our lives and undoubtedly shaped us as mothers. Like all parents, we want to protect our children whenever we can. Please, vaccinate your children. Let's be the generation that ends HPV-related cancers. That is a legacy worth leaving.

Rachel M. Cunningham, M.P.H., and Julie A. Boom, M.D., are authors of Vaccine Preventable Disease: The Forgotten Story and dedicated advocates for vaccines. Cunningham is the Immunization Registry and Education Specialist at Texas Children's Hospital and Boom is Director of the Texas Children's Hospital Immunization Project.

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