How well do you know HPV?
Perhaps more intimately than you think.
By Stacy Strand Narvesen

stacystrand@yahoo.com

How much do you know about the sexually transmitted virus that touches an estimate of up to 75-90% of every one of us, men and women alike? (ASCCP, 2009)

In New York, in 2009, men and women between the ages of 18 and 35 are becoming more and more affected by the generally sexually transmitted infection Human Papillomavirus causing lesions, warts, and cervical cancer.

According to The American Society of Colposcopy and Cervical Pathology (ASCCP):

-Genital HPV is very common. It is the most common viral sexually transmitted infection (STI) and is likely to be the most common STI overall.

-Many estimates have placed the lifetime likelihood of getting genital HPV to be in the range of 75-90%.

-The risk of exposure to HPV is estimated to be approximately 15-25% per partner.

-Most people who get HPV never know they have it, as they do not develop genital warts, an abnormal Pap test, or other manifestations of HPV that they can identify.

-Approximately 1-2% of the population has genital warts and the lifetime risk is estimated to be about 10%.

-Approximately 2-5% of women have a Pap test with cell changes due to HPV at any one screening. (2009)

The pharmaceutical company Merck has within the past few years developed a vaccine for four of the strains of HPV. This vaccine is simply the first step of a necessary sprint to reducing, curing and prevention of this potentially deadly virus. Now this vaccine needs to be implemented, available to all individuals whom qualify to receive it, and information on this life altering virus needs to be spread. Spread by any means, literature, voice, perhaps taught to parents, young adults, care givers and health care workers alike.

This is my story, struggle and cause:

“Unforeseen and unprepared for, the disease had come upon him, a happy man with few cares, like a gale in the space of two weeks.” (Solzhenitsyn, 1968, p. 1).

Unfortunately, this is true in many cases, including my own. A normal check up at my gynecology physicians office with no complaints, just the having to wait in the office waiting room for over

three hours for a regular yearly exam. It had been a few years and I was over due, but like I said, I had no complaints. It was a new physician for me to see, whom came highly recommended not only by a co-worker, but also some patients from the doctors office which I worked in. It was the usual new patient consultation of questions and answers from both parties, and the physical exam.

After about two weeks post Pap smear, blood tests, and physical exam, I received a phone call from my physicians office regarding my results. I was told by the medical receptionist that my pap smear had returned with abnormal results. I was also informed that some of my laboratory blood work up had also finalized abnormally. I was asked to return to the office at the next available appointment. When I began asking the obvious young lady (*you could tell from her squeaky, unarticulated voice)* questions about the results, she could not help me and said my doctor would be able to explain everything when I came in. I had an almost unbearable three days, which in my case, felt like three years to await my results.

According to Stewart and Spencer (2002): “The Pap smear is a means of evaluating cells removed from the cervix to see if there are any changes in them that signal cancer or a precancerous condition. It's the single most cost-effective disease screening test known to modern medicine.” (p. 174-5).

My initial response to unanswered questions, had me gain access to the world wide web. My need for information search led me to www.WebMD.com. This site had given me a much better knowledge in what to expect from my doctor. It told me the best and worst case scenario:

- Atypical squamous cells (ASC): This category is used for minor cell changes due to unknown causes. ASC is divided into two types:
    - ASC of undetermined significance (ASC-US).
    - ASC that cannot exclude high-grade squamous intraepithelial lesion (HSIL) (ASC-H).

- Low-grade squamous intraepithelial lesions (LSIL): This category is used for cells that show definite minor changes but are unlikely to progress to cancer. This category includes presence of human papillomavirus (HPV) infection, mild dysplasia, and cervical intraepithelial neoplasia (CIN 1).

- High-grade squamous intraepithelial lesions (HSIL): This category

is used for cell changes that have a higher likelihood of progressing to cancer. This category includes the presence of moderate to severe dysplasia, carcinoma in situ (CIS), CIN 2 and CIN 3, or changes suspicious for invasive cancer.

- Squamous cell invasive cancer. (The Bethesda system (TBS))

WebMD also prepared me for what was possibly the next medical move to determine the extent of abnormalities in my cervix. The site advised that another Pap would probably be repeated in several months, an HPV screen was typically done, and a simple in office procedure called a colposcopy was to be preformed. It also prepared me for multiple biopsies to be taken once the colposcopy was initiated. I couldn't gain too much information on my blood results due to the fact that I did not know which came back abnormal.

Once I was back in the office, my ob gyn began explaining results. She informed me that I had in fact, been tested for HPV, Human Papillomavirus, which had been 'detected' at a 'high-risk'. According to Moore (2009) “There are over 100 different types of HPV; the majority are harmless but some lead to cervical cancer.” (p.366) Stewart and Spencer (2002) also point out that “The virus affects as many as six in ten sexually active women, though majority have no symptoms; the virus simply hangs out in your otherwise healthy body doing nothing.”(p.379). These ladies also point out that approximately one million women will be diagnosed on a yearly basis. (p. 379). According to the Center for Disease Control and Prevention (2008) “ Approximately 20 million Americans are currently infected with HPV, and another 6.2 million people become newly infected each year. At least 50% of sexually active men and women acquire genital HPV infection at some point in their lives.”

My doctor also gave me my Pap smear results. It came back as 'Epithelial cell abnormality' as a general category and finalized as 'Low Grade Squamous Intraepithelial Lesions' or LSIL. The doctor explained that she was not worried, and although these were abnormal results for a woman my age and health, she saw no reason for panic or concern. (*No reason for concern?!?)* She then explained what I already knew from my own research: it was time for a colposcopy and possibly several biopsies may be taken, depended on what she saw in the magnifying lens.

A colposcopy according to mayoclinic.com:

> Colposcopy is usually done in a doctor's office and the procedure typically takes 10 to 20 minutes. You'll lie on your back on a table with your feet in supports, just as during a pelvic exam or Pap test. Your doctor positions the special magnifying instrument, called a colposcope, a few inches away from your vagina. A bright light is shown into your vagina and your doctor looks through the lens, as if using binoculars. Your cervix and vagina are swabbed with cotton to clear away any mucus. Your doctor may apply a solution of vinegar or another type of solution to the area. The solution helps highlight any areas of suspicious cells.
> During the biopsy: If your doctor finds a suspicious area, a small sample of tissue may be collected for laboratory testing. To collect the tissue, your doctor uses a sharp biopsy instrument to remove a small piece of tissue. If there are multiple suspicious areas, your doctor may take multiple biopsy samples.

I inquired the normal v. abnormal results of the biopsies and asked her opinion of level of concern. She replied with “We are not concerned unless it comes back to show concern.” We were to believe that everything was cop acetic and the results of my biopsies would be back in ten to fourteen days. So I waited.

Waiting for the results of my biopsy, had to be the longest almost two weeks of my life. I attempted to keep my mind off of it by keeping busy. It was the end of a semester, which made it hard to concentrate on final exams. When I had quit smoking several years ago, I had taken up knitting, which proved a great calming mechanism for those two weeks of waiting.

I had contacted my physicians office after an impatient ten days. Unfortunately, they did not return my phone call for another two agonizing days. It was during these two days I began asking myself questions: Why, as a woman, don't I know more about these issues? They affect millions of people every day. I had always considered myself to have some medical knowledge. I had been an EMT-B for the state of New York since 2005, I had worked in an Emergency room for nearly 2 years previous to that, and I had since worked in a private medical practice for another year and several months. I did not consider myself to be a medically ignorant person. This made me start to question how many other women have been diagnosed with

this cancer causing virus that had no idea of the ramifications and serious illnesses linked with several types.

After the two days, I received a return phone call from the doctors medical assistant suggesting a follow up visit as soon as possible. The anxiety of not being told 'it's nothing' right there on the phone, made my stomach drop. My heart was in my throat as the appointment was scheduled. Although physically I felt fine, great even, my gut told me that my biopsy results would show a very different scenario.

As the day came for my results, I felt in denial. I attempted to be ready for the worst possible outcome, however, can you ever really be prepared for the worst? As I sat in the doctors chair, she began to explain the results to me. I was told that my biopsies showed something called endocervical adenocarcinoma in situ. Diamond, Cowden and Goldberg (1997) explain:

> Carcinoma in situ – refers to a small cluster of malignant cells that occupy a superficial layer of the cervix but have not penetrated the deeper tissue layers or spread to other body areas; hence, it is called preinvasive.
>
> The phrase “in situ”means that the abnormal cells are confined to their original site in the cervical epithelium and have not invaded the basement membrane of the cell. Once invasion of the basement membrane occurs then there is cancer. (p. 227)

As my physician explained to me what this meant, the lump In my throat did not prevent me from asking her to repeat it. As she elaborated her previous statements, they slowly began to sink in. She then stated the words no one ever wants to hear: 'You have cancer.' Not really letting this statement sink in, she continued with telling me whom she was referring me to and that this oncologist would be taking my case. As my mind regained its normal functioning methods, I inquired treatment methods and prognosis. Prognosis, she wanted left up to the oncologist, but felt optimistic in that it was found in an early stage. Treatment methods vary from patient to patient but included: Cryotherapy, Laser, LEEP, Conization, or Hysterectomy. Being a young woman with no children, but someday would like them, a hysterectomy was a last option. She informed me that my two most likely options were a LEEP or the conization. According to Stewart and Spencer (2002):

> Loop Electrosurgical Excision Procedure (LEEP). A loop of wire

is used with electrical current to remove a circle of tissue containing the abnormality from the cervix . The procedure is performed in the office under local anesthesia and has a low rate of complications.

Conization of the cervix involves taking a cone-shaped piece of tissue from the cervix for both diagnosis and treatment. ...reserved for diagnosis in women who have HSIL (high grade dysplasia) with a lesion that cannot be entirely seen with a colposcopy... ...cone excisions started to be done with the laser, and now by LEEP, (or a cold knife) making it possible to do the procedure in most cases on an out-patient basis. (p.394-6)

After I went home, cried, and pounded my pillow with my fist, I hopped right back on to the Internet. I began researching this oncologist she had recommended. After finding nothing special nor necessarily wrong with the man, I decided to see a physician whom was named one of the top doctors in his field practicing in the metropolitan area. I called to make the appointment the next day. Due to his reputation, I wasn't given an appointment for several weeks which I found satisfactory and expected.

Once I was seen by the oncologist, I had better prepared myself for options, treatments, and had decided if I didn't like this man, I would have no trouble finding another care giver. His office was located in a reputable and clean hospital facility, and his office staff was friendly and personable. These few qualities were a first step in reassuring my decision in choosing physicians. As I spoke to his Physician Assistant, then immediately afterwards the Doctor himself, I had a very good feeling about everything. He assured me that although this is considered the rare form of carcinoma, it was becoming more prevalent in women today. He took care to review my medical record and repeated the colposcopy. He then rendered his recommendation of a cold knife cone biopsy. It would be done as an out patient procedure in the very same hospitals O.R. It was scheduled for three weeks later.

Pre-surgical testing is required before anyone goes into the operating room. A week before my procedure I joined half a dozen people to have my blood drawn, an EKG, and a chest X-ray. This was done before my evening class that night so I went much earlier than necessary. It all seemed pretty routine to me: Paper work with one

receptionist, then waiting; more paper work and insurance information with another receptionist, more waiting, but in a different room; brought into the third room for blood to be drawn and my EKG to be done by two different specialists; then given directions on how to get to the radiology department on the other side of the hospital. It's a good thing they give you a map, since it was not only located on the other side of the hospital but you had to take special elevators to the basement floor. I felt I was getting my work out in for the day.

The day after my pre surgical testing I flew down to Florida due to my grandfathers ailing health. My brother accompanied my flight and we spent the last few days of my grandfathers life with him. He had been battling Non-Hodgkins Lymphoma for the better part of a decade and he finally lost the fight. I can't say I blame him for not wanting to fight anymore. It was a long tough road and it was the strength of his wife of 52 years, and six children that brought him this far. It was at his home with his family when he finally passed on. This was a hard week. Not only trying to be strong for my mother and grandmother, but saying goodbye and watching his health deplete on a daily basis. I was entirely grateful that I did have the opportunity to be with him for his last few days. I prefer saying good-bye and safe journey in person rather than after the fact. On our way home, inevitably, our flights were delayed and we landed in upstate New York around 8:30pm. Once we were picked up, and I was brought to my vehicle, I had a lovely two hour drive home to New Jersey. Due to construction traffic, I finally arrived home at about 11:30pm. Which gave me a whole half an hour to scarf down any food or beverage I wanted, since I was not to eat or drink after midnight.

Finally the day had arrived for my cold knife cone biopsy. According to Sherk (2004): “Cold-knife conization is the removal of a cone-shaped wedge of tissue with a scalpel (surgical knife).” With very little sleep (*maybe two nonconsecutive hours)* the night before, my husband escorted me to the hospital by 5:45am. I nervously changed into the hospital gown, socks and robe, and waited for the big moment. As I waited for my next escorting, several nurses came and introduced themselves. My wonderful husband tried to keep my mind off the inevitable by telling me some of the funny things our dogs did during my absence. He talked about the weather, and asked me questions about my Florida family. He was doing everything in his power to keep me calm and not so nerve wrecked.

The time finally came where a nice orderly came to escort me to the operating room, which was located on the same floor. He walked

me down into a very cold, but sterile feeling, hallway and into my operating room. It was all metal, no colors, no warmth. There were machines lining the room, and about seven people throughout. My doctor was on the computer but stopped to greet me. I recognized several of the nurses and didn't recognize the rest of the people. One nurse explained that these were medical students and asked my permission for them to stay and only observe the operation. Although it felt awkward to me, I allowed it knowing they would not be the ones with the scalpel. The nurses seemed appreciative of my decision, and assured me that I was in the best of care. If it wasn't for them, I'm sure I would've had a breakdown. One held my hand as they put me under general anesthesia, while the other told me what was going on before it was happening.

The next thing I knew I was waking up on a gurney in a completely different room, with a different nurse saying 'hello'. The procedure went well according to this nurse, as she gave me apple juice, and helped me to sit up. After my juice was gone I was put into a wheelchair where I was to be brought back into the first room that I had waited in. Once I was settled into the big over sized chair, my husband finally arrived to greet me. As I sat in the chair, my husband tried not to laugh at me for my post anesthesia side affects. As webmd explains:

> As you begin to awaken from general anesthesia, you may experience some confusion, disorientation, or difficulty thinking clearly. This is normal. It may take some time before the effects of the anesthesia are completely gone.

As I was slow to respond to his questions, he proceeded to inform me that the surgeon, my oncologist, had greeted him post op and assured him that everything had gone as planned. This helped ensure me that everything went well. I was told to follow up with him in two weeks in his private office and I could go home as soon as I felt able. It took me almost an hour to become close to my regular self. I also had to prove that I could micturate before the recovery nurse would take my IV out of my hand. I did as soon as I could. At this point all I wanted to do was to get a big helping of fried chicken for a late lunch and be at home on my couch with my husband and two dogs.

About two weeks later I returned for my follow up exam. Slightly nervous as I knew I would be receiving my biopsy results that day. These results would tell me if my cancer was invasive or not, as well

as if the surgery was truly successful in removing all the cancerous abnormal cells in my cervix. As I arrived to my appointment, I was led directly into the exam room and given a sheet to be placed over myself in awaiting the doctor. As he entered the room, he greeted me and asked how I was feeling and if I had any complaints. As usual, I felt fine and had no complaints at the time. His exam said everything was looking well, but I still needed to take it easy for at least another week. My biopsies had confused the Doctor. Apparently, the pathologist who had examined my cone biopsy had finalized his report in an unusual manner. The Doctor explained to me that although all but one of my biopsies returned negative for abnormalities on the outside of the specimen, one was written up as 'butted'. The Doctor explained he had requested a conference with the pathology department and several of his colleagues to further investigate this matter. He asked me to call for an update approximately a week and a half later. I asked the most natural question of if I should be worried, with the response of 'no, we need to wait for the conference', but as of right now no further steps will be taken until afterwards. He assured me that the biopsy was not positive, therefore was in our favor. (*Haven't I heard this before?)* I then went home slightly discouraged that I didn't have definite results as of yet, but happy I was healing well.

Another waiting period of eleven days went past until I anxiously called the Doctor's office. Although the Doctor had instructed me to call that day, which was a Monday, his office was closed and he would not be in till the following day. The secretary assured me she would give his nurse, whom was in the office, the message and she would call me back. Monday came and went. As Tuesday rolled around I became impatient and called the office again. The same secretary answered the phone and assured me the doctor had received my message but was called into emergency surgery that morning. She promised he would call me as soon as possible. Unfortunate for me, my case had been yet to be discussed at the hospitals 'Tumor Board' and I am still awaiting results as this went to publication.

As per Carlson, Eisenstat, and Ziporyn (2004):

> Cancer of the cervix is the third most common malignancy of the female genital tract (after endometrial and ovarian cancer). In the United States approximately 13,100 new cases are diagnosed each year and 4,100 women will die annually from this

> disease, which is only second to breast cancer as a documented case of cancer death among women. But with the wide spread use of the Pap test as a screening tool, early detection and successful cure of this disease have become increasingly common.(p. 126).

Unfortunately, although this book is approximately five years old now, the American Cancer Society has recently (05/09) updated its statistics about cervical cancer in its 'Cancer Reference Information':

> The American Cancer Society estimates that in 2009, about 11,270 cases of invasive cervical cancer will be diagnosed in the United States. Some researchers estimate that non-invasive cervical cancer (carcinoma in situ) is about 4 times more common than invasive cervical cancer. About 4,070 women will die from cervical cancer in the United States during 2009.

This scary statistic brings me back to my last questions: Why as a society involved in new technology don't we know more about this disease and its origins? If HPV is as common as the American Cancer Society claims why don't more people talk about it? The ACS claims:

> Genital HPV is a very common virus. Some doctors think it is almost as common as the common cold virus. In the United States, over 6 million people (men and women) get an HPV infection every year. Almost half of the infections are in people between 15 and 25 years of age. About one-half to three-fourths of the people who have ever had sex will have HPV at some time in their life.

If this is so wide spread, why wasn't it taught in the mandatory health classes in high school? Why is it not a mandatory vaccine in pre-teens and late adolescents for school requirements? How many females and males understand the not only the term 'HPV', but what it actually means for them? How many understand what does HPV causes? Or how to prevent it? Or how one comes in contact with the virus?

I had decided to literally ask these questions of the public. I stood in the entrance way of one of the more frequented and larger New York City parks. It was mid afternoon on a sunny week day in early July that I posed 4 short answered questions to men and women

between the ages of 18 and 35. I chose this age group, being that young women 25 and under can obtain the vaccination, however young adults with children need to consider this vaccination for their children in the future.

I have to admit I was frustrated for the majority of my field work. I was grateful to all of those who participated, but unfortunately for me, there were more who did not or would not participate. I was able to obtain 50 peoples answers diverse in color, creed, gender, ethnicity, and religious beliefs. My only control was the ages ranged between 18 and 35 years.

Question 1: What is HPV and what does it stand for?
Answers: Only 26 of the 50 could answer the question correctly. However, most (44) knew the general idea of it being known as a STD.

Question 2: What does HPV cause?
Answers: Due to the gardasil commercials on television, 42 people knew HPV could lead to cervical cancer, however only 22 knew it could cause warts, and even fewer (12) knew that you could have HPV and have no signs or effects of the virus.

Question 3: Do you know how to prevent the spread of HPV?
Answers: 46 of the 50 answered protected sexual intercourse. 41 answered with the vaccination. 34 of those questioned answered abstinence. However, only 13 people knew it was transmitted by skin to skin contact.

Question 4: Do you agree or disagree that an available vaccination (such as gardasil) should be mandatory in our school systems as other vaccines are now?
Answer: 40 people said yes it should while 10 people said no.

It was question 4 that really struck people and made them think about their answer. The first three rolled off their tongue and was what ever came to mind. But the forth... needed to either be repeated or elaborated on. Elaborated in the sense that it needed to be further explained. In repeating “...as other vaccines are now?” as religious beliefs do come into play and are considered in these mandatory issues by the state and school officials.

The New York State Department of Health and Bureau of Immunizations, as of 02/2009, have a mandatory list of nine

vaccinations for a child to have completed for school entrance and attendance. This needs to be changed to ten vaccines. If this becomes a mandatory vaccine, fewer and fewer people, young men and women, will be affected by this virus. Along with more research to broaden the scope of possibilities and not give this awful infection anymore lives.

Merck has developed the an FDA approved vaccination to help prevent the big four of the hundred plus types of HPV. According to gardasil.com: “GARDASIL is the only cervical cancer vaccine that helps protect against 4 types of human papillomavirus (HPV): 2 types that cause 70% of cervical cancer cases, and 2 more types that cause 90% of genital warts cases. GARDASIL is for girls and young women ages 9 to 26.” This is given over the course of six months in a total of three doses. This vaccine could've prevented my contracting HPV and developing an early stage of cervical cancer. Unfortunately, I was not as punctual as I should have been in going for regular OBGYN exams and Pap tests. It was only developed and approved by the FDA in 2006, and my last exam was before that. If I had gone, I am not sure I would have taken the vaccine being unsure of its long term effects and new production. I, like many people, tend to wait new products out, let them be developed, and all of the 'glitches' worked out. I also may have already contacted and began development of this virus and cancer.

> According to Waknine: The approval was based on clinical study data showing that the vaccine was 100% effective for preventing HPV 16- and 18-related cervical precancers and noninvasive cervical cancers compared with placebo. It also prevented 95% of HPV-related CIN 2/3 and adenocarcinoma in situ cases; 99% of genital warts cases; and 100% of HPV 16- and 18-related vulvar and vaginal precancers (VIN 2/3 or VaIN 2/3) in women not previously exposed to these HPV types. (2006).

We have to admit, these are pretty results for the clinical study. I might have been persuaded, but again, I didn't know about any of it. If I had been born ten years later, would I have received this vaccine? Would my parents have been for or against it? I don't believe it promotes sexual behavior, however some may believe it does. Some may say that this vaccine may give the wrong impression to a young girl naive to the real world and its diseases. Some may say it gives the recipient a green light to go and have sexual intercourse with

whom ever they wish, and be confident they will not catch the HPV virus. This is where counseling comes in. Explaining to our youths that vaccinations do not work against every disease is a start. Mention the fact that Gardasil only covers four of the one hundred plus HPV strains out there. Making sure they understand abstinence is the only way to remain STD free. Also, if they are to engage in sexual conduct, condoms are not always fool proof, but according to the CDC:

> Condom use may reduce the risk for HPV-associated diseases (e.g., genital warts and cervical cancer) and may mitigate the other adverse consequences of infection with HPV; condom use has been associated with higher rates of regression of cervical intraepithelial neoplasia (CIN) and clearance of HPV infection in women, and with regression of HPV-associated penile lesions in men. A limited number of prospective studies have demonstrated a protective effect of condoms on the acquisition of genital HPV. (2009).

Catholics do not believe in premarital sex. The Vatican had published a workshop on their official web site in 2003 stating:

> The Human papillomavirus (HPV) is given some more attention, with the conclusion stating clearly that “[t]here was no evidence that condom use reduced the risk of HPV infection…”. HPV is a very important STD associated with cervical cancer, which in the US kills many more women than the HIV.

Unfortunately, there is no response in regards to the recently approved vaccine Gardasil. I did however speak to a New York catholic man in his sixties, we'll call him Paul. Paul is a retired suburban New York police officer whose always been a faithful follower, however since his retirement, has become more devout. Paul claims not to believe in vaccinations nor medicine. Lucky for him he is healthy and doesn't require any daily regiments except for the occasional over the counter pain reliever for a headache. Paul has a preference for the natural or herbal alternatives. Paul does not condone premarital sex and believes that abstinence is the only way to avoid and prevent STD's and STI's. He also told me “If you sin- God will punish sinners. It is God's will if you catch something, and it's all part of God's plan.”

Paul also confessed to me that all eight of his children had been

vaccinated for the mandatory diseases. He also informed me that one of his three daughters had been affected by the HPV strain that causes cervical cancer. (Paul X, personal communication, July 18, 2009)

Although Paul strongly disagrees with my claim of policy, I stand by it. Our society cannot rely on our children being abstinent before marriage. Along with the ASCCP's statement that “penetrative intercourse is not required” for contacting the STI.

The ASCCP also states that although it rarely causes any serious affects, it can be transmitted by oral sex. It also informs on the other ways of possibly contracting the virus:

> There is no evidence that contaminated toilet seats, doorknobs, towels, soaps, swimming pools or hot tubs, can transmit HPV. However, some unexplained cases of HPV lesions do occur and one should never rule out the possibility that an HPV infection may have been transmitted in a non-sexual event. HPV types that cause hand and common warts are different from the types that cause warts in the genital area. The exception is the rare occurrence of warts in the genital area in young children that are due to these "non-genital" HPV types. Likewise, genital HPV types are only very rarely found in lesions outside the genital area. For instance, occasional HPV 31 lesions have been described in the conjunctiva and under the finger nails. (2009)

So these facts should ease the minds of catholics in that it isn't necessarily all limited to sexual intercourse.

Sister Aloysius: I'm sorry I allowed even cartridge pens into the school.

> The students really should only be learning script with a true fountain pens. Always the easy way out these days. What does that teach? Every easy choice today will have its consequences tomorrow. Mark my words. (Shanley,pg. 9)

Although this was a thought from the 1960's Catholic church, it still holds true in today's catholic beliefs. They hold onto old beliefs that may have worked half a decade ago. The world changes and the church needs to understand and recognize this need for change. I'm not saying a total 180 here, simply understanding the need to alter approaches to win battles. Such as the battle against HPV and its dire consequences.

We need to reach out to the young teens of America. The best way for these inexperienced, yet curious adolescents to be informed is before the deed has been done. To give these children all the information their brains can handle and the tools to be used to their advantage will give them the trust they want and the protection they deserve. Awareness and communication can open the minds of our youth.

According to the Guttmacher Institute:

> Men experience first intercourse at 16.9, on average, and women at 17.4. Men spend slightly longer being sexually active before getting married: nearly 10 years, on average, compared with just under 8 years for women. By their late teenage years, at least 3/4 of all men and women have had intercourse, and more than 2/3 of all sexually experienced teens have had 2 or more partners.(2002)

Whether it is permitting youths to engage in sexual conducts or not is not the issue. The statistics show that teens will have sex eventually and don't we want them prepared? I am not a mother as of yet. However, knowing what a “Crafty Virus” (Stewart & Spencer, 2002) HPV can be, I believe I would want my daughter to obtain this vaccination. If we as a society can prevent a disease from taking over another young womans life, then I say here here.

I have also had the opportunity to interview two young ladies whom have been diagnosed with HPV, however have had very different corrective procedures as far as their precancerous cells.

~Jessie, 28 years old, my first interviewee, had no symptoms, nor complaints but resulted with an abnormal pap and positive for HPV about two years ago. She knew nothing of the subject and (like myself) used the Internet for information. Jessie was given the choice of a LEEP being done or to leave it alone and return for follow up, in hopes the cells would revert back to normal. She chose to leave it alone and thankfully, it did reverse itself. Jessie is keeping her follow up appointments but living cancer free. She has been advised to try to lead a healthier lifestyle in eating and exercise, as well as to 'be more careful when it came to being sexually active.' Jessie also shared with me her opinion of schools mandating vaccinations against HPV. She strongly believes that not to educate young women and girls is 'ignorant' , and agrees that although not all strains of the virus

are protected via vaccine, it should be permitted as a school requirement.

~Anne, 29 years old, my second interviewee, had been quite regular in her visits to her OBGYN, but this visit she believed she possibly had a UTI (Urinary Tract Infection). Approximately nine months ago, as a result of this visit, she was informed she had HPV as well as an abnormal pap test. Anne was never given prior information about this virus and very little from her OBGYN. Her abnormal pap suggested abnormal cells, and these were in fact, precancerous. Her information also came from the world wide web (thank someone for that, huh?) and was followed up with her physicians suggestion of the LEEP to correct the abnormality in her cervix. Her GYN is repeating exams and tests every six months to ensure a full recovery of this dilemma. Anne also agrees with Jessie and myself, in mandating vaccines for HPV. She believes that as a 'preventative issue' we should do all we can to ensure the safety and well-being of our youth.

The awareness of HPV, cervical and other gynecological cancers have simply not met the publics expectations. In 2006 an act was written and signed into law by President George W. Bush. This law was titled the “Gynecologic Cancer Education and Awareness Act of 2005” or “Johanna's Law”. This act alloted $16,500,000 to be spent on this issue between 2007 and 2009. This money is to be spent according to how the law was written and agreed to by both the House of Representatives and the Senate:

`(1) NATIONAL PUBLIC AWARENESS CAMPAIGN-

`(A) In general- The Secretary shall carry out a national campaign to increase the awareness and knowledge of health care providers and women with respect to gynecologic cancers.

`(B) Written materials- Activities under the national campaign under subparagraph (A) shall include--

`(i) maintaining a supply of written materials that provide information to the public on gynecologic cancers; and

`(ii) distributing the materials to members of the public upon request.

`(C) Public service announcements- Activities under the national campaign under subparagraph (A) shall, in accordance with applicable law and regulations, include developing and placing, in telecommunications media, public service announcements intended to encourage women to discuss with their physicians their risks of gynecologic cancers. Such announcements shall

> inform the public on the manner in which the written materials referred to in subparagraph (B) can be obtained upon request, and shall call attention to early warning signs and risk factors based on the best available medical information. (U.S. Congress, 2006)

Johanna's Law was brought about by Sheryl Silver, whom lost her sister, Johanna, to ovarian cancer.

> Johanna’s Law is named for my sister Johanna Silver Gordon, a dynamic woman and former schoolteacher, who lost her life to ovarian cancer despite being a health conscious woman who visited the gynecologist regularly. Sadly, Johanna did not know the symptoms of ovarian cancer until AFTER being diagnosed with an advanced stage of the disease. Not knowing the symptoms contributed to a lengthy ---and ultimately lethal --- delay in her diagnosis. Tragically, Johanna’s story of delayed diagnosis is all too common. Thousands of women in the U.S. each year are stunned not only to be diagnosed with a gynecologic cancer --- but to learn that symptoms they experienced in the months prior to their diagnoses were common symptoms of these cancers, but they hadn’t known it. The problem is particularly common --- and deadly --- with ovarian cancer where a pervasive lack of knowledge about symptoms commonly leads to lengthy delays in diagnosis. Plus women are frequently misdiagnosed with benign conditions before the correct diagnosis is made. (Silver, 2007)

This is a great beginning of public knowledge. It's unfortunate that it was due to the death of any woman but her story survives in these new laws. We can only hope to see the outcome sooner rather than later in teaching and spreading the knowledge of these fatal diseases. We need to as a society, ensure the use of this allocated money to instruct the women of our nation on what to look for and be aware of.

Another activist and full supporter of Johanna's Law is cancer survivor (Actress and Writer) Fran Drescher. She began a movement called 'Cancer Schmancer', which is designated to bringing awareness to women with cancer in it's earliest stages. According to her web

site:

> Fran’s public speaking efforts encourage women everywhere to take control of their bodies, challenge their physicians and learn the early warning symptoms for women’s cancers. To this end, she has launched the Cancer Schmancer Movement, a non-profit organization dedicated to ensuring that all women’s cancers be diagnosed while in STAGE 1, when it’s most curable. Fran’s vision is to galvanize women into one collective voice to alert our elected officials that our vote means more than that of the most powerful corporate lobbyist. Her goal is to live in a time when women’s mortality rates drop as their healthcare improves and early cancer detection increases. (2009)

Fran Drescher is a uterine cancer survivor whom was lucky enough to have been in the first stage of development. Unfortunately, it took eight doctors to diagnose her disease. On an interview with “Larry King Live” in March 2007, she tried to explain how we aren't given the proper materials and information on warning signs and symptoms.

> Well, after two years, I was still in stage one, thank god. And that's why this is my whole life mission now, is to encourage people to take control of their body, to learn what the early warning symptoms of all cancers are and to know the tests that are available. Because we're all victims of a medical community that's bludgeoned by insurance companies to go the least expensive route of diagnostic testing. (Drescher, King, 2007)

Dreschers impact, dedication, and courage has made influence in the world around her. In becoming a U.S. Diplomat, she has broadened her horizons and is able to reach out even further than before.

Through her book she has given a very inspirational memoir of her experience. Although her gynecological cancer differed from my personal experience, I could still relate to some of her feelings and emotions. She expresses very personal and intimate issues in this book and I can only give her credit for being brave enough to share them. Drescher has inspired my memoir to elaborate on my feelings and emotions during my reflections of my progress.

Although this is a great way to aide awareness about

gynecological cancers, I began to wonder how to start at the core of cervical cancer specifically. HPV is the leading cause of cervical cancer today. How can we begin to prevent cervical cancer if not at the root of the problem?

We, as a society, need to mandate this vaccination to be a part of school requirements. Research needs to be continued to help eliminate the other potentially harmful HPV strains, along with newer vaccines to be given to males and older adults. Literature, written in a comprehensive manner, should be distributed to all young adults over the age of 18, and given to parents of younger possible recipients. High school health classes need to include this virus during STD discussions. Primary physicians, family and general practice physicians, along with gynecological physicians should be well educated on this topic and relay information to all of their patients at risk. Simply testing for the virus is not enough. Mandatory vaccinations, more research development, and more education will aide in the fight against our unwilling intimacy with HPV.

References

American Cancer Society (2009). Cancer Reference Information. What Are The Key Statistics About Cervical Cancer? Retrieved from http://www.cancer.org/docroot/CRI/content/CRI_2_4_1X_What_are_the_key_statistics_for_cervical_cancer_8.asp

American Cancer Society (2009). Cancer Reference Information. Human Papilloma Virus (HPV), Cancer, and HPV Vaccines –

Frequently Asked Questions. Retrieved from http://www.cancer.org/docroot /CRI/content /CRI_2_6x_FAQ_HPV_Vaccines.asp

Cardinal Lopez Trujillo, Alfonso (2003, December 1). Family values verses safe sex. Retrieved July 29, 2009, from The Vatican Web site: http://www.vatican.va /roman_curia/pontifical_councils/family/ documents/rc_pc_family_doc_200312 01_family-values-safe-sex-trujillo_en.html

Carlson, Eisenstat, and Ziporyn (2004). The New Harvard Guide to Women's Health. Massachusetts: Harvard University Press.

Diamond, Cowden and Goldberg. (1997). Alternative Medicine Definitive Guide to Cancer. California: Future Medicine Publishing Inc.

Drescher, Fran (2002). Cancer Schmancer. New York, NY: Grand Central Publishing.

The Department of Health and Human Services: Centers for Disease Control and Prevention. (2008, April). Genital HPV Infection - CDC

Fact Sheet. Retrieved from http://www.cdc.gov/STD/HPV/STDFact-HPV.htm

King, Larry(Anchor). (2007, March 27). Tony Snow's Cancer Returns [Television series episode]. In Larry King Live. CNN.

Mayo Clinic Staff, (2009, May 16). Colposcopy: What you can expect.. Retrieved June 30, 2009, from Mayo Clinic Web site: http://www.mayoclinic.com/ health/colposcopy/ MY00236/DSECTION=what-you-can-expect

Moore, D. (2009). Womens health for life. New York, New York: DK Publishing.

New York State Department of Health/Bureau of Immunization, (2009, February). New York State Immunization Requirements for School Entrance/Attendance. Retrieved July 2, 2009, from New York State Department of Health Web site:

http://www.health.state.ny.us/publications/2370.pdf

Shanley, J. P. (2005). Doubt: A parable. New York, NY: Theatre

Communications Group.

Sherk, Stephanie Dionne (2004). Cone Biopsy Gale Encyclopedia of Surgery: A Guide for Patients and Caregivers. Retrieved from http://www.encyclopedia.com

Pence, B & Dunn, D (1998). Nutrition and women's cancers. Boca Raton, Florida: CRC Press.

Rosenfeld, J. (2001). Handbook of women's health: An evidence based approach. United Kingdom: Cambridge University Press.

Silver, Sheryl (2007). Johanna's Law Signed Into Law By The President!. Retrieved June 16, 2009, from Johanna’s Law: The Gynecologic Cancer Education and Awareness Act Web site: http://www.johannaslaw.org/

Stewart, E., & Spencer, P. (2002). The V Book: A doctor's guide to complete vulvovaginal health. New York, New York: Bantam Books.

U.S. Congress. (2006). Gynecological Cancer Education and Awareness Act of 2005 (H.R. 1245). Washington:

Waknine, Y. (2006, October 02). International Approvals: Singulair and Gardasil/Silgard. Medscape Today, Retrieved 06/23/09, from http://www.medscape.com/viewarticle/545374

Watson, R (2003). Functional foods and nutraceuticaals in cancer prevention. Iowa: Iowa State Press.

Web MD. (2007, January). Abnormal Pap Test - Topic Overview. Retrieved from http://women.webmd.com/tc/abnormal-pap-test-topic-overview

Web MD. (2008). Pain Management Health Center. Anesthesia - Recovering From Anesthesia. Retrieved from http://www.webmd.com

(2002, October). Sexual and Reproductive Health: Women and Men. Retrieved June 23, 2009, from Guttmacher Institute Web site: http://www.guttmacher.org/pubs/fb_10-02.html

(2009). Getting to know us. Retrieved June 16, 2009, from Cancer

Schmancer Web site: http://www.cancerschmancer.org/pages/Getting-to-Know-Us.html

(2009, June 3). Human papillomavirus (HPV)- Natural History. Retrieved July 29, 2009, from The American Society of Colposcopy and Cevical Pathology Web site: http://www.asccp.org/hpv_history.shtml#top

(2009). Important information about Gardasil. Retrieved June 23, 2009, from Gardasil Web site: http://www.gardasil.com/index.html

(2009). Learn about Gardasil. Retrieved July 29, 2009, from Gardasil Web site: http://www.gardasil.com/what-is-gardasil/index.html

(2009,March 26). Male Latex Condoms and Sexually Transmitted Diseases. Retrieved June 23, 2009, from Centers for Disease Control and Prevention Web site: http://www.cdc.gov/condomeffectiveness/latex.htm