Historically, vaccination is a relatively new medical practice. After the initial enthusiasm in mid-twentieth century, there has emerged an anti-vaccination movement that contributes to widespread distrust of vaccination as a medical practice. The Vaccination Research Group is interested in understanding the social and cultural contexts for this distrust and examining the themes and stories that are told in anti-vaccination narratives.

The H1N1 pandemic of 2009 and current recommendations that all citizens over the age of 6 months receive the seasonal influenza vaccine make college students an important group to study in relation to vaccine practices and beliefs. During the semester of fall 2010, the Vaccination Research Group conducted an online survey of Virginia Tech undergraduates, Radford nursing students, and Virginia Tech School of Medicine students concerning H1N1 and seasonal flu vaccination practices beliefs (n = 1,287). The survey collected demographic information from respondents and also asked for narrative responses regarding vaccination beliefs and reasons for their practices. There were almost 540 respondents from the population.

The survey generated significant quantitative data but, interestingly, we also note significant narrative elements relating to urbanized students in respondents’ responses. Analysis of the narrative portion of the qualitative data involved coding using grounded theory methods. A number of students mentioned a popular news story and viral video of the cheerleader who developed ‘dystonia,’ a neurological movement disorder, after receiving the H1N1 vaccination. Additionally, a few students mentioned the risk of becoming a zombie as a result of receiving this vaccine. For this poster presentation, we will analyze the data received from the survey with an eye toward understanding how urban legends frame anti-vaccination sentiment.

Demographics

Area in which your family home is located:
- Rural: 22%
- Urban: 11%
- Suburbs: 66%

What is your major or study?
- Medicine: 4%
- Nursing: 7%
- Health Science: 4%
- Undergrad. General science: 5%
- Undergrad. Engineering: 5%
- Undergrad. Architecture/Planning: 1%
- Undergrad. Fine Performing Arts: 3%
- Undergrad. Social Science: 14%
- Undergrad. Humanities: 12%
- Undergrad. Natural Resource or Agriculture: 11%
- Undergrad. Business: 12%
- Other: 21%
- No Answer: 1%

Age
- 18-21 years: 93%
- 24-29 years: 4%
- 30-35 years: 1%
- 36 and up: 1%
- 42 years and up: 1%

Sex
- Male: 28%
- Female: 72%

Racial group identity:
- Caucasian: 87%
- American Indian/Alaska Native: 0%
- Asian: 6%
- African American: 2%
- Native Hawaiian/Pacific Islander: 0%
- Hispanic: 2%
- Latino: 14%
- Other: 3%
- No Answer: 1%

Questions of Interest

The following questions received qualitative responses, which were coded into various categories:

Research Question

What is your major or study?
- Medicine: 4%
- Nursing: 7%
- Health Science: 4%
- Undergrad. General science: 5%
- Undergrad. Engineering: 5%
- Undergrad. Architecture/Planning: 1%
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- Other: 3%
- No Answer: 1%

Have you chosen to get the H1N1 (Swine Flu) vaccine since it became available?
- Yes: 36%
- No: 64%
- No Answer: 0%

If you answered no, please check the two most influencing reasons:
- Inconsistent:
- No:
- No:
- No:
- No:
- No: 3%

Did you receive enough information about the seasonal flu and H1N1 (Swine Flu) vaccinations from your physician or local health care center?
- Yes: 55%
- No: 27%
- N/A: 16%
- No Answer: 1%

How would seasonal flu and H1N1 vaccinations information best reach you?
- TV commercials: 49%
- Radio commercials: 11%
- Online advertisements: 31%
- Newspaper advertisements: 8%
- Magazine advertisements: 5%
- Advertisements in pharmacies: 17%
- Physicians and Pharmacists: 43%
- Other: 8%

What do you believe are the side effects of the H1N1 (Swine Flu) vaccine?
- Kayleigh's death: 24%
- CDC reported symptoms/similar to flu shot symptoms: 49%
- Not Sure/Haven't Heard: 22%
- Other: 21%
- No Answer: 1%

Of the two you chose, which one is most influential?
- Physicians: 28%
- Family members: 28%
- Friends: 3%
- Health articles: 2%
- Magazines: 0%
- TV: 15%
- Public Health Flyers: 8%
- Online websites/Internet: 7%
- Other: 4%
- No Answer: 3%

Do you think the vaccinations for the seasonal flu and the H1N1 (Swine Flu) are important public health measure?
- Yes: 83%
- No: 16%
- No Answer: 1%

Have any of your friends or family been sick with the seasonal flu or H1N1 (Swine Flu) this year?
- Yes: 55%
- No: 45%

Did the person's illness affect your decision to be vaccinated against the seasonal flu or H1N1 (swine flu)?
- Yes: 14%
- No: 86%
- No Answer: 4%

Of the two you chose, which one is most influential?
- Physicians: 28%
- Family members: 28%
- Friends: 3%
- Health articles: 2%
- Magazines: 0%
- TV: 15%
- Public Health Flyers: 8%
- Online websites/Internet: 7%
- Other: 4%
- No Answer: 3%

Vaccination and Zombies

The Redskins Cheerleader Story:
In early October 2009, news stories hit the media and flooded the Internet about Desiree Jennings, a 25-year-old Redskins cheerleader. She claimed to suffer from severe dystonia, a debilitating neurological movement disorder, as a result of a seasonal flu shot. News articles, blogs, and YouTube videos all circulated the story that quickly became viral. After her routine flu shot, Desiree fell ill with fever and body aches. Soon Desiree developed an unusual speech impediment that made her sound as if she had a foreign accent. However, the symptom that most intrigued America was Desiree’s strange inability to walk forward in a straight line. The once extremely active cheerleader could now only walk and run backwards or sideways. YouTube videos featuring Desiree soared to millions of views, and Desiree developed a fan base on Facebook and other social networking sites. The Washington cheerleader’s coverage continued through a 20/20 episode and Dateline feature. Although Google Searches data show the public’s interest dwindled significantly after the original news broke in late 2009, there was a significant, although much smaller, response to a new story revealing Desiree Jennings entire situation was potentially a hoax in mid 2010. Nevertheless, the bizarre story had made its impact on many Americans too nervous to receive their flu shot in fear of developing dystonia.

Fear and Distraction

Only twenty-five of the 121 responses reflected any belief in zombies as a side effect of vaccinations. One responded, "It makes me think of I Am Legend. No one wants to have that." Four responses reflected fear in the safety of the vaccine because of the Redskins Cheerleader who developed a rare neurological condition after receiving the flu shot. Zombies and the Redskins' cheerleader are the only reflection of urban legends evident in the responses.

The majority of the responses elicited distrust. Four responses directly stated distrust in the vaccine administration, and six respondents revealed that they did not trust the safety of the ingredients in the H1N1 vaccine. One participant responded, “The government doesn’t fully know what they are putting into my body. They have a LONG history of dangerous side effects...Vaccines contain disgusting ingredients such as aborted human bodies (listed as human diploid cells on ingredient list), monkey cells, chicken egg cells, and harmful ingredients used as preservatives (such as mercury, thimerosal, etc.).” Thirty respondents revealed they did not trust the vaccine because of neurness and insufficient testing, while five respondents reflected a distrust of drug company scams. One participant said, “The drug manufacturing companies have their own agenda...They engineered the H1N1 virus to spread rapidly and have intense symptoms. A bunch of hysteria was created to cause a small increase in profit.”