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CDC did not accept commercial support for this continuing education activity.
Viral Imaginations
Vaccination and the Zombie Apocalypse

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Why does vaccination controversy fester when there are high overall rates of vaccine attainment?

Vaccination controversy gathers in a number of concerns and fears about medicine and the future.

Educating people about scientific literacy is not likely to ameliorate perceived problems in public knowledge about vaccines.
Zombies, seriously?

• 2010 VRG online college student H1N1 flu survey
  • 2 answers (out of over 500) suggested not getting vaccinated in order to avoid becoming a zombie

• The power of urban legends and popular film to influence perspectives on vaccines

• “Viral imagination”

• Challenges to one of the basic premises of public health—is injury to a few valid in the context of increased security and health of the whole?
Studying fiction and film

- Popular fiction and film shape perceptions and express anxieties in recursive fashion
- Cocreation of worries and the stories that represent them demonstrate the embedded cultural processes that animate popular artistic forms
- Creating our own monsters is a time-honored tradition in the management of human fears and aspirations
- Moral questions, especially with regard to the individual and the horde
Dead Of Night, by Jonathan Mayberry

Characters:
- Dez, a psychologically conflicted but pretty small-town PA cop
- The boyfriend, unlikely hero, who runs a satellite TV news station
- Volker, former East German physician recruited to the US by the CIA

Zombie bioweapon:
- Chemicals meant to paralyze a death-row inmate, rather than kill him
- Bioengineered wasp larvae meant to eat him from the inside in his coffin. The bioengineered wasp (LUCIFER 113) creates the zombie by infecting the brain and disconnecting higher functions—the initial victim somehow maintains some cognitive capacity

The glitch:
- Dead criminal gets sent to a funeral home rather than buried in potter’s field
- Before anyone knows what has happened, zombies run amok in Stebbins, PA
The classic zombie problem

• How to stop the horde and save civilization
• The impulse of the government and military is to kill everyone who might be infected, even those who are healthy, in order to stop the outbreak
• Individuals can be sacrificed for the good of the group
World War Z, by Max Brooks

- Oral history of a UN professional who interviews people all over the world
- Redeker plan—based on the (fictional) apartheid Plan Orange, designed to protect the white minority from an all-out uprising of black Africans
  - First step: establish a safe zone, knowing that not everyone can be saved
  - Second step: evacuate some citizens to the safe zone, and seed others as human bait in the area where zombies proliferate
  - Third step: defend the safe zone and gradually expand through careful military advance
- Some lives are expendable without sentimental or moral hesitation
The Passage, by Justin Cronin

• USAMRIID project to create human bioweapons creates “virals” that kill all living animals
• The virals escape their research facility in Colorado by telepathically influencing their guards
• A six-year old girl also escapes; she is infected with an attenuated version of the virus
• The novel tacks back and forth between the original story of the virals’ creation and escape and the society 100 years later that struggles to survive
A familiar cast of characters and set of issues

Characters:
• A curious and emotionally lost doctor vulnerable to manipulation
• Manipulative and ethically compromised military
• Rapacious mercenaries who don’t give a fig about human life
• An innocent but powerful figure who will eventually save humankind

Issues:
• Desire for immortality and revenge against the forces of nature
• Attempts to control and contain the zombie horde are inadequate
• Human error always triumphs over careful bureaucratic management
• Medicine is easily corruptible, in part due to doctors’ core compassion
The movies *I am Legend* and *World War Z* significantly alter the novels on which they are based.

In *I am Legend*, the movie’s mutants, vampire-like zombies, are the result of an engineered measles virus used to create a cancer vaccine.

In *I am Legend* in particular, concerns about monkeying around with dangerous microbes motivate the narrative.

Both movies propose a biotechnical answer to the zombie apocalypse, suggesting that medicine, and not the military, will provide a solution to the zombie horde.
Deep concerns raised by the zombie horde

• Is it ethical to sacrifice some citizens in order to save the majority?
• What is the individual’s value in relation to the group’s?
• Who will save us when the next mistake happens?
• Will anyone know in time when the next mistake occurs?
• Will the government kill some in order to save civilization?
• Whom can we trust to secure our futures?
• How do we know bureaucrats have our best interests in mind?
• How do we know that they are telling the truth?
The Individual and the Community:

Right, I mean when you’re looking at vaccine arguments, you know, it’s the herd immunity thing, in order to protect the vulnerable. But if your child is vulnerable, then I think that argument actually works less well. Ryan

There is a communitarian attitude that a person needs to adopt if they’re gonna buy into the whole vaccination idea, and that is, we all live together. Some poor, some poor families, some child, one in a million or whatever the statistic actually is, is going to be damaged. So, that, you know, the rest of everybody can go forward and, and have a healthy, uh, quality of life, and I think that’s part of the antivaccination thing, too, is there’s a kind of, you know, my world, and I’m gonna control what I can and, and I’m not responsible for the rest of the world. Esther

Each children is different. They have different, uh, you know, uh, health predispositions, generic predispositions, different, uh, vulnerabilities and, uh, sensitivities and, you know, injecting same dose at the same time and not looking holistically how healthy and well they are, and what’s right for them is, yeah, again, one of those approaches that maybe needs to be, need to be evaluated. Nolene

I am not willing to put my children at risk for the sake of the greater good especially when I don't believe that that’s actually an accurate outcome of that. Julia
VRG interview studies: Vaccination & Health Beliefs

Transforming the Human Race:

Of the risk that is there that we have not uncovered because the research hasn't been done. And so I just, I'm, I'm really worried that we are changing our children in ways that we can't even predict. And that we will never know who these little people would have been if they had not been injected time and time again, with diseases and foreign substances throughout their childhood. Aisling

Besides which, we don't know our children, we don't know what normal is anymore, because our children are mediated and affected, it used to be from the day that they were born with hepatitis B, they have something that is injected into them, now it's from birth, because they're injecting pregnant women with DTaP and flu vaccines. We don't know what normal is anymore, we don't know what a normal kid is, because we are meddling with them from the time that they're born. We don't know our child before we start doing medical interventions to them that have the potential to change them. We don't know if our child is in pain, we don't know if these things make our child feel bad or change our child in some way, because our child can't talk and tell us. Kim
Uncertainties of Medical Intervention:

It struck me that doctors are working with a device that they don’t fully understand; there’s not a human constructive device. They have the capacity to feed in instructions by chemicals and medicines, but the interactions inside that device are so complex and ill understood that outputs that these doctors are creating are potentially harmful, where still doctors don’t monitor what actually happens to that set of instructions that they feed into this body. They provide the chemicals and then they step away. Shaun

Anybody is naïve if they think that, they don't think if they go in and they're given, being, having something injected into their body and they don't even think about what's in it ... So any viewpoint, I think, has its merit and to try to make decisions based on information is important. So my children, I think, if anything they respect me. I don't think they would see me as a sheep. Marcia

Uh, here in America, I just couldn't believe what was happening in day cares. People were just lining up, like, you know, like lemmings and just waiting to, you know, without asking any questions, without asking and who's coming to facility to vaccinate? Uh, it's just amazing, you know, I think there's something cultural about the level of obedience and, uh, not questioning, uh, the authority. And, you know, in some other countries and places around the world, people are a little bit more, you know, curious how things work, why, and, you know, what are plus and minuses and things like that. Nolene, in reference to swine flu vaccine clinics.
Thank you!

Help with the Powerpoint came from Prerna Das, Maggie Eddleton, and Neil Feste, Virginia Tech undergraduate student members of the Vaccination Research Group, 2017-2018.

Interviews were conducted by Tarryn Abrahams, PhD candidate in Science and Technology Studies and primary graduate assistant to the Vaccination Research Group. Tarryn also selected quotations for resonances with zombie themes.

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