

INTERACTIVE ETHICS CASE: FEBRUARY-MARCH 2002

Small pox is a deadly virus that has been responsible for some of the most devastating epidemics in world history. A vaccine for small pox is available and was used effectively to eliminate the disease throughout the world. Small quantities of the small pox virus were saved, however, and while they are relatively secure in government laboratories, one cannot rule out completely the possibility that terrorists will obtain the virus and use it for an attack. Because the virus spreads rapidly and people in the United States have not been vaccinated in many years, such an attack would result in many deaths.

The idea of mandatory vaccination of the U.S. population against small pox has been raised as one method of blocking the effects of a bioterrorist attack against our country using the virus. Initially, however, there might not be enough vaccine available for everyone. In your opinion, what are the most important factors to be considered or ignored in deciding who should receive the available vaccine?

Dear Students,

Thank you for your thoughtful and interesting comments. We received responses from 35 students representing 4 schools. As you suggested, we all hope that the remaining virus will be protected from theft or misuse and that sufficient vaccine will become available for everyone to be vaccinated if necessary. In the meantime, here are four general approaches that you suggested regarding who should receive the virus given its limited availability.

1. Vaccinate according to what people do and contribute to the world. For instance the government and military keep the country running and protect us.
2. Vaccinate according to risk of attack. For instance, people living in high population areas are those likely at greatest risk of attack and virus spread.
3. Vaccinate according to age. For instance, younger people are the future of the country.
4. Vaccinate by lottery or other random method. In America everyone should be treated equally.

Your suggestions are all very important. You will find additional ideas in the following commentary based on the views of one of Dallas' public health professionals.

Vaccination against smallpox does two things: (1) provides protection for individuals and (2) prevents the spread of disease to others. Given the severity of the threat to the public's health by a bioterrorist attack using the smallpox virus, decisions regarding vaccination should be based on what is called a "utilitarian" ethic. This approach attempts to maximize the health of the community, rather than the well being of particular individuals. We should adopt a vaccination strategy that most effectively contains the epidemic and minimizes harm to the population as a whole.

Using a utilitarian ethical approach means that factors sometimes used to distribute scarce resources to individuals are not directly applicable. Such factors include ability to pay, "first come-first serve", self-selection, individual medical urgency, life expectancy, considerations of social worth, and selection by lottery. Because the vaccination strategy will affect the public good, allocation decisions should be made through an appropriate political process and community dialogue. At the same time, however, questions regarding how to contain an epidemic rely on scientific knowledge. Therefore, experts in the field will likely have a great impact on decisions regarding allocation.

Since there is not sufficient vaccine available to inoculate enough people to protect the general population (what public health professionals call "herd immunity") the limited supply of vaccine should be conserved for use if and when an attack occurs. At present, we should vaccinate only those physicians and other health care workers, laboratory personnel, and law enforcement personnel who would be responsible for the nationwide response to contain an epidemic. Then, in the event of an actual attack, priority would be given to physicians and other healthcare workers in the area affected as well as to persons at greatest risk of becoming infected and spreading the disease to others.

The Centers for Disease Control has adopted a plan for responding to a bioterrorist attack involving smallpox. You can find their plan on the CDC website at: www.cdc.gov.

Student Comments:

3/25/02

First of all, since the virus is fairly securely contained and it is not as easily obtained or as destructive as other types of bioterroristic diseases, it is unlikely that there is a major threat of a small pox epidemic. However if I were a terrorist, I would see something the enemy would not expect because they would be completely unprepared. That said, I think the first to be vaccinated should be the youngest. If there is only enough vaccine for ages 0-12 or 0-30 so be it. It ensures the survival of all families' youngest generation. Also, if all of our young people are vaccinated, terrorists would not attack us with small pox in the first place because it would be relatively ineffective after the vaccinations have been administered. There would be not point because all groups would survive and life would continue. Death is death no matter where it is, so vaccinating densely populated areas would not be wise

3/23/02

Since terrorist attacks have a better chance of happening. We need to start giving people the vaccine started with the President. Then we need to give the vaccine to people who have never had chicken pox and to the people who are at the greatest risk for infections.

Azle High School

3/20/02

Knowing that using small pox against America is only a threat, makes the suggestion to vaccinate America unreasonable. Affecting America with a contagious virus would lead to the possibility of their own countrymen being affected. The waste of vaccine used for our safety would clearly project an intimidation of America. I am not saying that America should be too proud to be careful but let's not be silly. Who really wants to decide who should live and die by choosing who can take the vaccine? We should redirect these vast efforts to protecting the virus that we do have.

S.

Azle High School

3/20/02

There are several different factors that I would consider before distributing the vaccine. First, how likely is a terrorist attack using smallpox. If it is very likely, for example, if they've threatened to use it or have technology suggesting their development of a weapon using smallpox, then I would most likely choose people important to the country's ability to function, such as the president and his companions in the government. Secondly, I would consider how long it would be until we could produce enough of the vaccine to distribute it to the rest of the populous. Knowing that it may take some time I would again try to vaccinate those individuals who are mandatory to our country's government. Even then I would do my best to increase production of the vaccine until we had enough to safely distribute to all the citizens.

P.B.
Azle High School

3/19/02

When faced with this issue many factors come to my mind that would influence my discussion. First of all I feel that I would start scientist all around the world experimenting on a way to genetically engineer bacteria or viruses to make the small pocks vaccine. This would allow a more abundant, cheeper supply of the small pocks vaccine to be available. Furthermore, I would address the problem of who to give the limited amount of vaccine to if the genetically engineered bacteria was unsuccessful. I feel that it should be first come first serve/lottery drawing, meaning anyone from all walks of life and all classes will come to a few set aside places in the world; and tickets with numbers will be given out. A drawing of a number will take place and everyone with that number will get the vaccine. This method will prevent mass hysteria from happening yet will still be far to the frantic world.

J. M.
Azle High School

3/19/02

I believe that the most important factor to consider when deciding who to vaccinate is what can be treated by other methods then just the vaccine. Also if only a small quantity of small pox was kept then it would take the terrorists some time to produce more thus giving us time to make more of the vaccine available. The whole population would not need the vaccine since most adults were vaccinated during their childhood. Then it would be a matter of vaccinating the teens, young adults, and young children.

3/9/02

I think that the vaccine should be givin to the people who really are in need of it first. This is a big problem. There should be some kind of lottery or something. that would be the only fair way to give everyone a chance to get the vaccine.

3/7/02

I believe that this matter should be taken very cautiously and calmly. Yes, it is a threat, but instead of everyone getting excited we need to take a practical approach to a solution. In my opinion, infants and young children should begin to receive these vaccinations as a part of their normal

vaccinations. While scientists create more of this vaccination, slowly I believe that those who have not recently been vaccinated, should take this precaution. (Mostly people ranging through the ages of 40-80.) As scientist acquire the newly created vaccination, more and more people from the ages of 18-39 should be administered the vaccination.

3/7/02

I think that the vaccine should be given to the weakest people that were never vaccinated. They are the most likely to get the disease and die from it. After the new vaccine is made then it can be given to the stronger people. This is good because hopefully the stronger people wont have gotten the disease before the new batch of vaccine was made. It increases the odds overall though that less people will get the disease and more will survive in case it comes to that in a war. Hopefully though we won't have to deal with this problem though it is good to be prepared for it.

C.F.
Kaufman High School

3/7/02

I think that when dealing with these kind of viruses the best thing to do at first is to prevent. If people are well informed about what they are dealing with there won't be panic. If you increase security and raise funds to fight terrorism you won't have to be dealing with the problem of vaccinating the people and then running out of vaccines. But nobody is perfect and we cannot count on security mechanisms to be perfect, so I think we would have to rationalize the vaccines. Then there's the problem about who should get to receive the vaccine. It would be cruel to leave a five years old child without a vaccine an it would also be cruel to leave a sixty-seven year old lady without it. But sometimes humankind's survival is more important than feelings, in this matter one would have to be cold and give the vaccine to the people who have the best chance of survival. People who can help humankind in years to come, people who can devote their lives to try making this world a better place to live in.

3/7/02

Smallpox is a very deadly disease. The vaccination for this disease should be give to as many people as necessary to insure the human race. The factors in choosing who we say should get the vaccine and who should not is nothing to play around with. I think doctors and scientists should figure a way to produce more vaccines, enough for the whole population of America, but since that is to late and there is a major threat of bioterrorism on all Americans. Then the vaccinations should go to the elderly and the children ages new born - 10, and the political people who will terminate the war on terrorism. Then give it to as many young adults, ages 14 - 25 as possible.

B. R.
Kaufman High School

3/7/02

In the untimely case of a terrorist attack with smallpox on the United States we should have a plan as to what is to be done. I feel the smallpox vaccine should be given to educated people first if it has to be given to anybody. For example, I feel teachers, doctors, and scientists should get the first dosage. Without these people there would be no hope for the continuation of our way of life. The military as well as the leaders of our country should also get the vaccine to keep our country together and safe. I do not believe money should be the deciding factor from here. Poor, rich, black, white or Asian should not matter. There should be an equal opportunity for everybody to get the vaccine.

J.P.
Kaufman High School

3/6/02

My opinion is that the people that have never received a small pox vaccination should be the people that should receive the vaccine first. Begin with those people who were born after the 1970s when small pox was eliminated, and work toward the youngest people. After that, begin with the elderly who may be more susceptible even though they should have been vaccinated previously. Lastly, healthy middle-aged adults who were required to receive the vaccine as children would be last.

J. B.
Kaufman High School

3/6/02

My opinion is that this never should have been an issue. They never should have discontinued active vaccination! Nobody should have to be deciding who gets the vaccine and who doesn't. We need to start immediate production and get people vaccinated so that terrorist can't use it as a weapon. No one has the right to decide who gets a vaccine that could possibly save their life. That is like giving someone the power to decide life or death. I do believe that people protecting our country in the military should be vaccinated as soon as possible, simply because they are at the most risk. Other than that, when the vaccine is made available it should be available to everyone, not just the people who can get there first, or the people who can pay to get bumped to the head of the line.

M.C.
Azle High School

3/2/02

The key word used in this case is initially. This is an important factor because they are saying that eventually enough will be able to be produced for everyone. The other key factor, of course, would be the waiting period between what we have now to distribute and the time it takes for more to be produced. This is where the controversy comes in. The only fair way to treat this situation, considering some may not care enough to get the shot at all, is to distribute it on a first come first serve basis. There is no way to distinguish the importance of one human being over another, so it should be the responsibility of the people to protect themselves.

3/1/02

I feel that the major factor to be considered is whose death would impact society more? Now, a 10 year old boy has everything ahead of him but, his death would have less of an impact on society than a doctor's death would. So it would be more beneficial to give the vaccine to the doctor as opposed to the child. The priority should be to administer the vaccine to those that would be able to help more of society. The determining factor should not be wealth or even social standing. I would rather have a poor person who can help others than a rich person that's useless. In the event that an epidemic of small pox does occur, terrorist produced or not, I think Joe Public would have a greater chance of surviving if public servants (police, paramedics, fire fighters), doctors, teachers, etc. were vaccinated before the car salesmen and tele-marketers.

N.S.
Mansfield High School

2/28/02

In response to the question asked about the vaccination of small pox, I think that it is very important to remember that everyone should be treated equally. If everyone cannot get the vaccine, then the government should not allow only certain people to get it. I think that this country has struggled enough to get equality, and because of the vaccine this country could lose what it has struggled for. It is important for the government to begin making more of the vaccine, so that if it is eventually needed there would be enough. It is not fair to decide on who would get the vaccine and who would not. Would prisoners, and gang members not get it while doctors, lawyers and athletes have full access to it? It not correct for anyone to make this choices. In my opinion, in case of a terrorist attack, the government should make a rash decision and deciding on only certain people getting the vaccine.

2/28/02

Many factors would have to be considered regarding the eligibility of the small pox vaccine. I believe that the people that should first be vaccinated, should be the populations of people that are at the highest risk of being infected during biological warfare. Thus, being the major metropolitan areas; such as Washington, D.C., Chicago, Miami, DFW, etc. I also think that another factor influencing the decision should be the amount of human contact per day that the subject has. For instance, doctors should be high on the list of vaccinations because they are one of the occupations that have the most contact with many people each day. Another factor that should be dealt with is their importance to society as a whole. I think that money, social standing, race, gender nor age should be considered when deciding upon who to vaccinate against small pox, in case there were a biological warfare.

AM
Mansfield High School

2/28/02

I believe if small pox itself is no longer a threat to our public health, the virus should not be sustained. And if for "just in case" purposes, be guarded securely enough where people wouldn't have to worry about the virus being tampered with. But if the question is whether or not to vaccinate, in the incidence that the worst does happen, vaccinate the young and achieving. The vaccine should not be used on the terminally ill or dying. People with lifetime sentences in prison should not

be issued the vaccination. This way more people whom have a chance to live a full life could be reached and the remainder of the country strong.

C. M.

2/28/02

First of all, I don't believe that the United States Labs are the only labs in the entire world that have the Small Pox Virus. Also if terrorist's wanted to use biological warfare on us, they most likely would use a more potent pathogen (hint: Anthrax). When they do decide to release the vaccine, it would be intelligent to issue it to the targeted metropolitan areas which includes most of the northeast. While they are in the process of delivering this to the "targeted" public, they could make some more. We shouldn't just let some people die, because we can not protect every last person at the very beginning. I say they should do it soon too.

J. H.
Azle High School

2/28/02

A small pox outbreak would cause numerous casualties. However, how can one persons life be of more value than anothers. Who would decide who got the limited number of vaccines? Would it be government officials, or maybe wealthy entrepreneurs, in order to decide who got the vaccine our very way of life we are trying to preserve would be put on the back burner, in America all people are equal, and that is why if one person can't have the vaccine no one should. I believe more serum should be produced so their could be a vaccine available to everyone, but until then we are all Americans therefore all at risk.

2/28/02

It would be prudent to vaccinate the people who would be at the highest risk of exposure from a terrorist attack first. These would primarily be residents of large cities like New York or Chicago and definitely Washington DC. These places would be the most probable targets in the event of a bioterrorist attack. The only problem with that type of plan is that anyone who wanted to know could find out which cities had been vaccinated, and to what extent, and simply go after the ones that have not. Unless the intelligence could be kept unusually tight, such a plan would be rather ineffective. An immediate and probably prudent solution would be to vaccinate all of the most important government personnel whose death or incapacitation would be particularly costly to the ability of the administration to perform its duties, like the president, his cabinet, sentors, etc. Beyond that, it would be rather difficult to decide who got the vaccine. Vaccinating a randomly chosen and widely distributed group of city-dwelling people would probably save the most lives, though strict quarantines would be mandatory in the event of an attack, or everyone in the country who had not recieved the vaccine would be infected in a week.

N.M.
Mansfield

2/28/02

I think that the most important factor to consider when deciding who should receive the vaccination for smallpox is the role that the person has in the United States as a whole. By this I mean that political leaders, such as the president and his Cabinet, should be the first ones to be vaccinated. Without a president and his advisers, the country would be left without a leader and in chaos. The military should be the next group of people to receive the vaccinations. If a bioterrorist attack occurs, we need to have healthy soldiers ready to battle the terrorists. Vaccinating these groups of people does not mean that we are necessarily evaluating their worth as an individual, but considering what they can do for the nation and keeping our country safe. Then if there is still enough of the smallpox vaccine left, the young adults and children should be vaccinated next. If this group is left unvaccinated and a bioterrorist attack does occur, the future of the United States will be in great danger. We need to be sure that the future of our nation is safe and secure. While all of this is going on, scientists should be working to make more of the vaccine available to the remainder of the population who has not been vaccinated. Then we should make smallpox one of the required vaccinations until the threat of bioterrorism has been diminished.

2/28/02

The first consideration would be how much vaccine is available? The next step would be to evaluate whether proactive or reactive steps should be initiated. If there is enough vaccine for each major metropolis to be inoculated, then a proactive approach would probably be the best choice, since highly populated areas would be at the greatest risk of exposure and rapid spread. If there is only enough vaccine for a single area metropolis inoculation, then the best course of action would be to vaccinate after exposure in hopes of controlling the immediate exposed populous.

J.S.
Mansfield High School

2/27/02

The question of who should receive the available vaccine should not even be considered. The government does not rightfully hold the power as to who will receive the vaccine and live and who will not and die if indeed a terrorist attack should occur. However, this does not stop the problem of inadequate vaccine in the face of using smallpox as a biological warfare. The most important factor in this case would be to consider the most healthy and strongest (survival of the fittest). There is no point in wasting vaccination on those who is already weak and disease ridden. This may seem a little cold but one must consider the fact that those who are most unlikely to survive will be wasting valuable vaccine. Therefore the decision of who will and will not be vaccinated against smallpox should be based on their health and age.

N.N.
Mansfield High School

2/27/02

The thought of such a bioterrorist attack involving smallpox is frightening and shocking...but horribly possible. What takes it beyond moral comprehension and on very controversial terms is the difficulty of choosing who and why certain people in our country should receive the vaccine. There are indeed so many different factors that should be considered: age, ability, power, money, vulnerability, community, the list goes on. In my opinion, first and foremost, children should be the

first citizens vaccinated, making age a considered factor. Children are much more vulnerable, weaker and more prone to contract and suffer as well as die from it. I think ability and skills play a good part in our decisions; for example, our president, our military, doctors and etc are all essential to the strength of our country. I personally do not think that social standing or money has anything to do with this sort of situation, and it would certainly be very discriminating if those particular people were issued the vaccine.

C.L.
Kaufman High School

2/27/02

It is my belief that we should first consider the location. A terrorist attack will not occur in a remotely populated area. if we give the vaccine, we should first give it to all major metropolitan areas. The next step is our service men. If our courageous men are ill, then who would be there to fight? Therefore, all military installations should receive the vaccine. After major metropolitan areas are secured, as well as military posts, we should next consider hospital employees. If those who are to treat the ill are ill, then the blind are leading the blind. By the time all of the vaccine has been given, there will hopefully be more of it to go around. If not the only area to cut down would be to limit those in major metropolitan areas. Since there is no civilized way to decide who will live and who will die, it should be done by a lottery. All who enter are eligible thus removing any concerns of discrimination. After these steps, the government should have an emergency plan to isolate the location of strike to prevent the spread of the virus.

E.B.S.
Mansfield High

2/27/02

I think it depends on who is paying for the vaccine. If the government is going to pay for the vaccine then they should do a random selection of people. The first factor to consider is what people are most likely to be in the area of attack. This is probably large metropolitan areas and the surrounding suburbs. I do not believe the terrorists would drop a deadly bioweapon on a town with a population of 100. The random selection should be a variety of wealthy, middle class, and lower income people. They should also make sure there are a variety of ages and a variety of different professions in the selection. If health insurance is going to pay then I guess it is first come first serve. If neither the government nor the insurance companies will pay for it, then the vaccinations would go to whoever is willing to pay for them and has the money for them.

L.B.
Mansfield High School

2/25/02

If every one cannot be offered the small pox vaccine then I think it best that it should not be issued at all. This is just my own personal moral standing. {If Johnny and Susie can't have any candy, then Paul can't either.} No doubt, this is an extremely controversial statement. One may ask, if there is available vaccine, why not save the few people that can be saved? In this case: In the ideal society, I think it best that those individuals to be treated with the vaccine be selected randomly, so as to give everyone a fair chance for survival. No other factors should be taken into consideration. The worst possible situation that could occur would be individuals being issued the vaccine based upon

their social standing or wealth. That would be one of the highest cases of discrimination.

N.A.

DUNBAR HIGHSCHOOL

2/25/02

The most important factor to consider in making the decision on who should receive the vaccine is the fact that there is not enough for everyone to have the vaccine. It is not fair to only allow certain people to have the vaccine. How would the government decide which people are allowed to have the vaccine? Another factor to consider is the time that it takes to make the vaccine. If it is possible to make the vaccine in a reasonable period of time, then it would be fair to give the vaccine because eventually there would be enough for everyone. Also, everyone might not want the vaccine. Therefore, initially, there could be enough for everyone that wants to get vaccinated. Another way to solve the problem is to put the virus into better secured and guarded laboratories, and make sure there is no way for terrorists to obtain it.

C. M.

Azle High School

2/24/02

Although Small Pox has been a great threat to the world, I believe due to all the chaos that has recently occurred children, military forces, and the elderly should be vaccinated for Small Pox. In doing so it will help prevent any outbreaks in the future. But there is no reassurance that everyone will get the vaccine. Due to the fact, there aren't enough vaccines for everyone I believe that scientists from all over the world should work together to make more vaccines for all our people. The government should support every aspect of the Anti-Small Pox Shot, in making these shots free to the public.

E. R.

Azle High School

2/23/02

First of all, before considering who should get the vaccine, we must keep in mind that if there is indeed a terrorist attack and there aren't enough vaccines to go around, some people are going to die. With this in mind, the idea choosing who is going to live and who is going to die in the event that there is a terrorist attack is just plain scary. This is asking us to put a value on someone's life as compared to another's; but if we do not choose to have a plan on who to vaccinate first, then in the case of a terrorist attack all lives could be lost. Considering this, we must indeed have a plan on who to vaccinate first. In my opinion if there was a terrorist attack, the larger metropolitan areas would be the first to be targeted, so I believe these are the people that should be considered first after the members of our government. The members of our government should be vaccinated first so that they will be able to maintain some order in the case of a terrorist attack. Also, not everyone in the cities should be vaccinated. People who are already sentenced to death by disease or by other means should withhold from receiving the vaccine as well as the least productive members of society. And how would we decide who the least productive members of society are? This sounds extremely coldhearted, valuing someone's life over someone else's but it would be necessary if we didn't want everyone to die.

A.G.
Dunbar High School

2/22/02

The decision to vaccinate individuals within the United States should not be any quick, easy decision. Much forethought has to be given to the consequences, response, and aftermaths of vaccinating Americans. I believe that firm facts, substantial proof, must first be gathered before any such decision or action is even thought about intercepting e-mails and phone calls just would not be enough. In the case that an attack was considered imminent, many factors have to be weighed extensively. As much effort as possible should be made to immensely increase the supply to a greater amount. With a limited supply of the vaccine for smallpox though, this places an even heavier load on the decision-makers. As always, circumstances such as wealth, place in society, and inside connections will try to force themselves into the picture. We cannot allow any of these things to influence us in determining who receives the vaccine. People living in high-populated areas, around national landmarks, and close to terrorist targets should get the vaccine. Age, money, fame, and occupation should not play a part-in America everyone is treated equally. Thus, a farmer would not be differentiated from a lawyer. Equality and susceptibleness takes precedence over these minor factors.

Azle High School

2/21/02

I believe the entire U.S. population should be vaccinated against small pox. However, since there wouldn't be enough vaccine available for everyone initially, I think we should vaccinate those who "need" it. Children and young adults should be vaccinated first because they are the ones who have thier whole lives ahead of them. If their generation got wiped out, there would be no future. I think age should be the main factor considered in deciding who should receive the available vaccine. In my opinion it is fair to start with the youngest generation and move upwards. If we are patient, I'm sure we will get more vaccine and will be able to vaccinate everyone.

V.P.
Dunbar High School

2/21/02

There are many important factors in considering who receives a vaccination for smallpox and who doesn't. First, the factor to be ignored, in this case, would be the issue of money. I believe, though, that children should be first to be treated, so that in the future, there would be less adults susceptible to the disease. Once children are treated, future generations hopefully would be safer from being attacked by the disease.

S. J.
Dunbar

2/20/02

Although small pox is a deadly virus that has enormous potential as a terrorist weapon, the emphasis on prevention from being used as a weapon is not to fall on vaccination. Because the quantities of the virus are very small and only possessed by few nations in the world, it is essential that the United States work to protect the small pox that is still around. In the long run, this will save the country millions of dollars, keep other deadly diseases that are stored as biological weapons, and prevent panic of the general population. If the government began immunizing everyone in the country, panic would set in from the mere threat of an attack from small pox, there would be some mistakes and some people wouldn't get it, and there would still be a threat from other hazardous biological agents. This is a case of when the best offense is a good defense, but the first line of defense must be at our stores of virus, not the population.

J. E.
Dunbar High School