

Don't Be Chicken: Bioethics and Avian Flu

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If you go running in Chicago in the early morning, as the first light glances and reflects on Lake Michigan, you can hear the great flocks of wild geese stirring and calling before you can see them. They have come down from the Arctic where as the winter comes to the Midwest, just as the flu season begins. They crowd in the cove with the gulls and the dogs run toward them, and they scatter and fill the air. They will land at the high school in town, in the farms along the interstate, and in the City zoo, with the ducks and the pigeons.

A pandemic that (hopefully) has not yet occurred dominates the newspaper headlines this winter—avian flu. Avian flu is on the front cover of most popular magazines, and news agencies like CNN frequently report on the spread of avian flu around the globe: an infected parrot found in Britain, a swan in Belgium, a flock of ducks in Turkey. There are also reports from China about a group of children with pneumonia who initially test positive for H5N1, the scientific name for the strain of influenza known as avian flu. Even before the test results are confirmed, tens of thousands of chickens in the region are killed, just in case (CDC 2005; Russert 2005).

Avian flu also tops the agenda at the European Union, the United Nations, and the White House. As we were writing this article, the United States Congress added a billion dollars to the proposed flu budget, the World Health Organization met to craft a plan to stockpile vast amounts of the anti-viral drug Tamiflu (even though we don't know if it is effective against the H5N1 strain), and the American Centers for Disease Control proposed new regulations requiring airlines and shipping companies to maintain electronic records of all passengers. Nevertheless, America lags far behind many other countries in preparing for a potential pandemic. Despite four years and billions of dollars spent on Operation Bioshield, we're still putting our faith in a flu vaccine prepared by using 19th century technology and chicken eggs as the base medium.

How should bioethics think about the problem of avian flu, as the fear of its coming rises like the call of the geese in the wintering air? There are two equally powerful narratives we encounter when we reflect on the ethical dilemmas raised by the growing crisis about H5N1 and the threat that it will mutate into a pandemic viral disease that will alter human history.

The first scenario involves what we call "feverish thinking"—namely, that flu fears are an absurd moral panic, the latest hyped-up fear campaign to divert us from real

problems in health care, such as the malaria, tuberculosis and infant diarrhea that kills millions of people every year. In this story, the risk of the H5N1 strain of influenza mutating into a variant that would pose danger to humans is so extremely small as to be meaningless. Furthermore, the way the modern medicine is structured with our ICUs and our ventilators and our antiviral drugs and our ability to quarantine means that pandemics cannot affect the world in the same way that the 1918 pandemic did. Hence, to worry about avian flu is to be duped. In this story, the ethical issue is about how to refocus our attention on the real issues.

The second scenario is what we call "fair warning." We are now faced with the very disaster that we have been warned about for decades. As Gina Kolata warned in her 1999 book, "perhaps as we grow smug about influenza, that most quotidian of infections, a new plague is now gathering deadly force" (Kolata 1999). The emergence of a new strain of influenza, H5N1, is closely linked by virulence, genetics and epidemiology to the 1918 strain that killed 50 million worldwide, nearly 5% of the world's population (Frist 2005). The 1918 pandemic also sickened millions more, overwhelming the American health care system, stopping most modern commerce, and even bringing an abrupt halt to World War I (Barry 2004). According to this narrative, we need to reflect immediately on what to do to prevent another pandemic and set in place a fair and just system that will distribute limited health care resources in order to save the greatest number of lives.

Getting it wrong is an all-or-nothing problem—if we turn from the tasks that our second narrative suggests and the worst (or even the pretty dreadful) happens, we truly will have failed. Overreacting will have a far less catastrophic effect for, at the worst, we could end up thinking about how to create a health care system that is responsive to and serves the interests of the majority of the peoples of the world. Planning for pandemic disease might actually allow Americans to end up with things that they need, such as an effective public health system that serves poor and marginalized populations, a coherent system for delivering of a decent minimum of health care access and service to all, a systematic way of organizing and distributing medical data, a plan for the production and wide-scale distribution of vaccines, and a deeper respect for how genetic medicine and a firm grasp of evolutionary biology can be useful.

For this reason, we argue it is prudent to reflect carefully on the details of avian flu, and to define and delineate the ethical issues that will arise during an avian flu pandemic. Only then can bioethics reflect on which normative answers will need to emerge (Mack 1991). Even if the H5N1 strain does not mutate and give rise to pandemic disease, for example, the idea that it could become endemic in wild birds and domestic poultry would be a significant economic and environmental problem, disrupting both natural ecosystems and the basic economy of many Asian village farms (New York Times 2005). When this strain of influenza first emerged among Vietnamese poultry in 1997, over 150 million birds succumbed to the disease or were culled to prevent further spread. Since then chicken production and consumption has been affected worldwide, not only because of consumer fears but also because of the increased cost of housing vast flocks of poultry indoors and of vaccinating birds to protect them against disease.

The real danger lies in successful mutation of the disease to a human variant, for humans are particularly vulnerable to influenza—over 36,000 die of ordinary flu every year. But if the virus mutates to successfully infect humans (as H5N1 varieties may), and if it becomes airborne (as did the genetic predecessor that caused the 1918 pandemic), and if it maintains the 50% lethality rate seen in humans to date, there will be little to stop a potent pandemic until treatment or a vaccine can be developed—which experts believe will take six months from the time that the new strain is identified and genetically characterized. Our health care system already is so fragile that even the most sanguine scenario would still raise significant ethical dilemmas and would still involve countless human tragedies—witness, for example, how swiftly New Orleans slipped into desperation following Hurricane Katrina.

We would thus like to propose a framework for debate, delineating four challenges that will face bioethicists. We also believe that far more inquiry will be needed about how to achieve the best response. Our partiality and the impossibility of certain knowledge should not stop us. Instead, we should respond to these challenges in a serious and timely manner, setting in place a structure for thoughtful consideration of the core problems.

The first problem concerns the ethical issues of surveillance. We need to create a surveillance system that will recognize and to respond to the first reports of an avian flu outbreak, assuring that our drug supplies be immediately given to the first area so affected. Although the WHO assumes this will occur in Asia, and recent reports support the assumption, we must remain vigilant worldwide. Such surveillance also must be rigorous, looking first for bird contagion and then for evidence of human spread. We live

in an edgy world, however, and it is unclear how closely Americans will want the state to observe and intrude in their personal lives. For example, the CDC has proposed new guidelines that will have transportation officials, such as airline stewards, reporting any signs of illness (fever, cough, headache, etc.) among the millions of passengers who travel into and around the United States each year. Although we believe that such tracking is prudent, others will call it intrusive. Bioethicists may be called upon to explain and defend such surveillance policies. At stake will be longstanding ethical concerns about privacy, especially due to the clear social implications of every suspected illness.

The next ethical problem will concern the use of antiviral treatment and quarantine, policies that are both prudent and necessary. As the disease spreads, the widespread use of antiviral agents such as Tamiflu will be necessary to reduce morbidity and mortality, even though we are unsure if these drugs will even work against the H5N1 strain of influenza. Tamiflu, which only shortens the course of normal flu, is not yet available in large doses and it is difficult to manufacture. Nevertheless, most government plans and the lion's share of the expenses have been directed toward the stockpiling of such antivirals. Is this the best use of our resources when we are uncertain if they will work, or is it because we can think of nothing else? The administration of antivirals like Tamiflu will not stop the spread of an airborne virus, nor will it stop a pandemic.

The administration of antivirals is an important humanitarian response, but organized quarantine procedures will need to be put in place immediately in order to prevent the amplification and spread of disease beyond the first local outbreak. Schools, colleges, sports, and airports are all sources of contagion. These will have to be closed and such closures must be strictly enforced, a task that some claim is impossible or worthless. How far are we willing to extend the police powers of the state to enforce local or national quarantines? Who will police the quarantine? Would such a venture even be possible under realistic and panicked conditions? Most importantly, can we decide such questions in advance, accepting the loss of personal freedom necessary for an effective quarantine to work?

The third ethical problem will revolve around issues of justice and resource allocation. Vaccine policy now is driven largely by politics, in which we vaccinate by categories of vulnerability not by efficacy. Yet the 1918 flu seemed to present a different sort of epidemiology—the vigorous immune response of the young paradoxically worsened the death rate in young and healthy adults. Hence, vaccination policies would have to account for this fact, altering the usual patterns of need and desire. Societies also may decide to only vaccinate people who will be in the

public domain, the “social circulators” that are needed for the larger group functions. Rather than vaccinate babies at home, or the institutionalized elderly, we may choose to vaccinate only those who care for and visit them. Such allocation schemes have not been well received in the past—recall what happened when members of Congress were given anthrax prophylaxis before postal workers. Making enough vaccine for the global pandemic is a daunting task. What should be the theory of justice that organizes the vaccine rationing scheme? What sort of justice do we mean? Normally, we function with a needs-based system, arguing for justice on the basis of deontological principles or contract theories. Epidemics force us toward utilitarian conclusions, justifying the use of distribution schemes that favor the most useful over the neediest, so the most useful can best serve the overall telos of a functioning society.

Finally, perhaps the most important moral question that will arise is one of personal duty. The choices faced by physicians and nurses will be particularly difficult. Health care providers will be faced with two competing role-specific duties—family member versus caregiver—in addition to the general duty of citizens towards neighbors in need. Flu will not only be “framed” in terms of cases found, institutions blamed, individuals valorized, and social constructs normalized, but it will also be a unmediated and personal tragic confrontation with the oldest of human realities. As the writings of Hippocrates begin, “when persons get sick all at once the cause must be common to all.” For all the talk in bioethics about the social framing and relativity of the normal, or of illness as metaphor, the reality of our oldest foe’s assault on our families will be quite direct. What of isolated rural populations and place with no doctors—should one travel there as was done for such disasters as Hurricane Katrina or the Asian tsunami, or should one wait in place in one’s own city? What is our theory of responsibility and freedom for the case or difficult, supererogatory duty? Lest lawyers and philosophers who are acting as clinical bioethicists think that they could abandon such roles in the face of a crisis, recall that it might be precisely at that point of triage that bioethicist would be most useful.

The crisis suggested here evokes some predictable reactions, for any health care disaster is set within the frame of a delivery system long understood to be at risk. Long term issues of social and medical reorganization will ultimately be exposed by an avian flu pandemic. For example, how is health care to be delivered to the uninsured? Will the concept of compensation be abandoned? Will longstanding issues of trust, authority and blame need to be renegotiated? What is the role of the religious response and of the tension between succor and blame, traditionally a problem during times of plague (after all, burnings and murder

actually killed more Jews during the Black Death than bubonic plague)? The political economy of epidemics also will be exposed, such as the way that humans house poultry in vast flocks, the interpenetration of cities and impoverished areas surrounding cities, and the crowding of the poor into concentrated areas with few health care services and marginal sanitation. Health care disparities that already exist will frame the pandemic, including class, race, ethnicity, age, and disability. As with Hurricane Katrina, the elderly, women and poor children will likely be the last to hail the lifeboat, much less find the space to get on board. An avian flu pandemic will be yet another lesson in this regard unless we find a way to act as a human community long prior to a crisis.

Bioethics must reflect on our own responsibility for setting the stage for a worsening of the situation. We must ask ourselves: what practices and assertions do we make that would have to be undone in a pandemic flu crisis? Is our attachment to the trumping power of autonomous consent and refusal—the idea of personal bodily inviolability—perhaps a bit overwrought in an epidemic situation? Is our nearly institutionalized hermeneutics of doubt perhaps too much a contribution to social incoherence? Is our distrust of pharmaceuticals responsible in any way for the collapse of the vaccine production companies? Will we display a moral theory that will support the supererogatory, even heroic duties needed for a good response? What sort of conversations must we engage in now to make a moral appeal for community in the face of a future disaster? Will we be able to maintain the utter commitment to truth-telling that will be needed in such a crisis? H5N1 eventually will come to us, borne on the air and in our very intimacies of speech and breath. The pandemic may come in the winter now before us or in fifteen winters hence, for pandemics are a part of populations (Garrett 1994). Bioethics, with its theoretical expertise in justice, health care, and the narrative of limits, has particular duties in the face of the looming crisis. These tasks are different from much of what has preoccupied us in the past, and we will need to address the pragmatic questions of public health as opposed to the marquee questions of science fiction. The avian flu is a story that is inescapably about everyone and everything, and there is no outside to which to flee. ■

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