This is an entirely fictional scenario. The people and events in this scenario are entirely fictional; any resemblance to real persons or events is entirely coincidental.

For the past fifteen months, outbreaks of avian influenza have decimated bird populations in Russia, Vietnam, Laos, Cambodia, Turkey, Romania, Indonesia, and China. Eight weeks ago, a bird farmer and his two year old child in Indonesia died from confirmed avian influenza (H5N1). To the best of anyone’s knowledge, the child was not in direct contact with the family’s poultry. To date, there have been over 1,500 suspected cases of avian influenza in humans in Cambodia and Indonesia, with over 400 deaths attributed to that infection. More than 75% of these recent cases of avian influenza in humans occurred in patients with no known contact with birds or poultry farms.

The WHO and CDC have representatives in the affected nations and posted travel advisories on their websites, recommending that people not travel to these areas. Preliminary studies of the avian influenza virus recovered from some of the recently infected patients suggest that the avian influenza genome mutated and is now transmissible from human to human. The WHO moves the pandemic alert period to Phase 4, and the Federal Government Response Stage to Stage 2.

Because of extensive press coverage of the outbreak, both the public and medical community are now acutely aware of avian influenza occurring in humans and are very suspicious of human-to-human transmission.
Day One:  WEDNESDAY

As part of a two week “extended spring break”, 20 year old undergraduate sophomore English major Leah Whusserfaise and her only roommate, 21 year old undergraduate junior pre-medicine Jennifer Notreal, enrolled in a student aid relief project run by a non-profit organization to help underprivileged rural inhabitants in developing countries sanitize poultry farms. The students left the first day of spring break and returned one week after all students were back on campus. Kenneth Wentmissing, a second year student in the University of Iowa College of Law, picked up Leah and Jennifer at CID when their flight arrived this past Sunday afternoon. Leah and Jennifer visited Indonesia and Cambodia with a group of approximately ten other students, none of whom were from the University of Iowa, and returned at the start of the tenth week of the spring semester. The return flight flew from Indonesia to Los Angeles Airport (LAX) to Chicago-O’Hare (ORD) to Cedar Rapids (CID).

At 11:30 PM on Wednesday, Jennifer drops Leah off at the emergency department (ED) of the University of Iowa Hospitals and Clinics (UIHC) in Iowa City. Leah has a fever, chills, malaise, cough and shortness of breath. Leah tells emergency personnel that she and her roommate Jennifer returned from their spring break trip the previous Sunday. Since returning from their trip, Leah attended four classes on Monday but stayed in her off-campus downtown Iowa City apartment from late Monday night until today. Leah attended a St. Patrick’s Day bar crawl on Monday, but Jennifer stayed home to catch up on coursework.

Although Leah is conscious, she is frightened and not fully/logically responding to questions. Leah does not remember when she started to show symptoms of illness, “I felt kind of crummy the last few days. I started to get sick before we left Indonesia, so I must have been sick on the plane. One guy got sick and left the trip early. I think my roommate Jennifer might be sick, but maybe it is just a cold or something with her.” Leah provides her address and Jennifer’s cell phone number. When staff attempts to call Jennifer, her voicemail picks up after the first ring.

Leah was evaluated in the ED, was found to have pneumonia on a chest x-ray, and was subsequently intubated and placed on a ventilator for severe respiratory distress. Leah is moved from the ED to the intensive care unit (ICU) early Thursday morning.
Days Two, Three and Four: THURSDAY, FRIDAY and SATURDAY

On Thursday at 9:00 AM, Jennifer wakes up and realizes that she does not feel well. At 10:00 AM, Jennifer gets on a Pentacrest Cambus, which she rides from downtown Iowa City to Student Health Services (SHS), located in the Westlawn building. Jennifer does not make an appointment, and it is a busy morning at SHS, so she waits forty five minutes until she is seen by a doctor. When seen by a medical professional, Jennifer does not mention that her roommate was ill or that she recently returned from Southeast Asia. She states she had a cold all week and that she needs a doctor’s note because she does not want to go to classes today. Jennifer spent the past few nights with her boyfriend, prodigal law student Kenneth Wentmissing, who also has a “cold.” Jennifer does not have a home phone line, but she provides her University of Iowa e-mail address and cell phone number. “Don’t bother calling my cell phone, though,” Jennifer says, “I can’t find the charger and the battery is dead.” She states that she will return to her apartment upon leaving SHS and provides the address.

Leah’s parents arrive in Iowa City at 7:00 PM and go straight to UIHC.

Friday Morning: The local television station just aired a report on a confirmed human case of avian influenza in Los Angeles, California. The station concludes the report with “breaking news” that there may be avian influenza cases in Iowa City. The University of Iowa Relations Office, UIHC, SHS, and JCPH are receiving calls from the media, the mayor’s office, local health clinics and health care providers.

Jennifer did not return to her apartment Thursday, but stayed with her boyfriend Kenneth until Friday evening, when Kenneth takes Jennifer to a popular local restaurant to try to cheer her up. Afterwards, they go to the Coral Ridge Mall to watch a movie. Jennifer did not eat much at dinner, and asked Kenneth to take her home early from the movie because she wanted to go to bed. Kenneth started to feel slightly ill on Wednesday, but said nothing to Jennifer because he thinks he just caught a cold in the law school. On Saturday, Jennifer is very ill and spends the day in her apartment.

Throughout Saturday: Fifteen patients (including ten UI students and one Professor within the College of Law) come to UIHC with severe influenza-like illnesses (ILI). The Law Professor has two elementary aged children, one which also presents with severe ILI, and one high school aged child. Seven patients (including three UI students and one Professor within the College of Arts and Sciences) present to Mercy Hospital with severe ILI. Two of the new patients were on the same flight as Leah and Jennifer, and live in Johnson County.
Days Five and Six: SUNDAY and MONDAY

Forty additional patients go to UIHC and Mercy Hospital with severe ILI. University of Iowa students and staff are among those presented at both hospitals. Leah dies at 11:00 a.m. Sunday. Leah’s parents are devastated and her mother screams in the ICU. Determined to educate the world about the perils of befriending poultry, Leah’s mom emails photographs and the following message from her hotel room at the Sheridan to several local radio stations and the University of Iowa Relations Office:

“Attached please find ten photos that my beautiful daughter Leah sent to me from the airport in L.A. Leah and her roommate Jennifer visited poultry farms in Cambodia and Indonesia to help poor locals clean the farms and make them more sanitary. Please help me educate people of the danger that chickens pose – I will never eat any kind of poultry ever again! All chickens should be killed so more people don’t die!!!”

At 4:00 pm Sunday the media reports that Leah was on flight 49X1, 49X2, and 49X3 and attended a large pub crawl in downtown Iowa City last Monday. An evening news program shows a recent picture of Leah and Jennifer working at a poultry farm in Indonesia. Shortly after the program airs, parents begin to arrive in Iowa City to take their children home.

Monday morning: Local residents are flooding their primary care providers’ (PCP) phone lines and offices with concern for being exposed. Many of these PCPs are calling UIHC, SHS, Johnson County Public Health (JCPH) and the Iowa Department of Public Health (IDPH) for information and support. Many people are afraid that they were exposed.

The University of Iowa receives a phone call from a Coach who is in Indiana with an athletic team. The team left Iowa City to attend a tournament. The entire tournament is now indefinitely postponed. The Coach heard on the news that Iowa City is in a state of emergency and there is a highly contagious influenza virus circulating. The Coach and all players except one are healthy. The Coach wants to know whether he should return with his players to Iowa City, and if they stay in Indiana who will pay for their extra hotel nights and food. The one ill player is in a hotel room by himself and has not been seen by a doctor. Several teammates stated they will not travel in a bus with the ill athlete. The Coach worries other players might already be sick.

People with a child or relative at the University of Iowa began arriving Saturday. By Monday morning, local roadways are packed with parents with rented trucks and trailers as a mass exodus occurs. Several accidents take place. In a loud public display outside Burge Residence Hall, one mother yells at her son, “I am not going to let you stay here to die! If your friends’ parents don’t care enough about them to come get them, that is not my problem! Get in the car; we are going home right now!” Public Safety is called.
Days Seven and Eight: TUESDAY and WEDNESDAY

Cases of severe influenza in humans are reported in other states and many more are reported in East Asia. The WHO declares that the world is now in Pandemic Phase 6: increased and sustained transmission in general population. Public health officials in Los Angeles, California, declare a state of emergency, stating that the city is suffering from an influenza epidemic. The CDC tells IDPH that they will not have additional resources to send to Iowa, as they are concentrating resources in large urban centers. At 10:00 AM Tuesday morning the President of the United States addresses the nation with this message:

“My fellow Americans, Pandemic influenza has been confirmed in the United States and is confirmed in several American cities. We do not have a vaccine available at this time, and anticipate that it will take scientists and researchers several months to develop an effective vaccine. I would like to ask all Americans to practice social distancing measures. These measures include limiting travel, voluntary quarantine of people who were exposed to people displaying influenza symptoms, voluntary isolation of the ill, avoiding large public gatherings, and cancelling large events. Businesses are asked to reduce their hours and individual States must decide whether to suspend classes in public schools. We are aware of several nations’ impositions on travel from the United States and we will comply with those restrictions. Domestic air travel in States with or bordering an outbreak will be suspended. We strongly discourage interstate travel at this time. All of these measures are voluntary and we ask for the cooperation of every American to do what is right at this time of the nation’s need.”

11:00 AM Tuesday – The IDPH issues the following Official Health Advisory via the Iowa Health Alert Network (HAN): “In the absence of sufficient vaccine supply, the most effective control measures for avian influenza can be found in the CDC February 2007 publication, ‘Interim Pre-Pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States.’ The link is: http://www.pandemicflu.gov/plan/community/community_mitigation.pdf. Officials should consider measures including cancellation of large gatherings; school closings; curfews; and incentives to area businesses and organizations for limiting operations to essential services.”

2:00 PM Tuesday: Until today, Jennifer voluntarily isolated herself and is still ill. Jennifer found her phone charger earlier today and finally checked voice messages. Kenneth left the following message on her voicemail, “I drove home to my parents’ house Saturday. I’ll call you when I get back to Iowa City.” Jennifer hears the message and sends the following email to the Dean of the College of Law from her UIowa email account, copying approximately 40 other University of Iowa students (including Kenneth) and a few professors (including a third of the faculty in the law school):
“I just wanted you to know that Kenneth Wentmissing probably has the BIG FLU VIRUS making everyone sick and I bet he contaminated the ENTIRE LAW SCHOOL. He probably got infected LIKE OVER A WEEK AGO, because he picked Leah (who died a few days ago) and me up from the airport last Monday. People like Kenneth make me really glad that I am going to be a doctor and not a lawyer!!! ~~~Jennifer Notreal~~~”

At 6:00 PM Tuesday evening, Jennifer is hungry and out of food in her apartment. She calls several restaurants that normally offer delivery, but they all suspended delivery service because of high absenteeism among employees. Jennifer walks the two blocks from her apartment to a downtown Iowa City grocery store. A store employee recognizes Jennifer, who appears unbalanced and very ill, and calls Johnson County Public Health to ask what the store should do.
Days Nine and Ten: THURSDAY AND FRIDAY

9:00 AM ET Thursday: The CDC hosts a Clinical Outreach and Communication Activity (COCA) conference call, which includes IDPH, JCPH, UIHC, SHS, UHL, the Incident Command Team, the VAMA, and Mercy Hospital. It is confirmed that Leah and Jennifer were infected with Avian Influenza Type A H5N1. Eight persons in Johnson County and two in Linn County died in the past seven days. UIHC and Mercy Hospital admit additional patients with symptoms of severe ILI, are now overwhelmed, and cannot accept any more patients. Two hospital workers who cared for Leah now show severe signs of ILI. Area hospitals are experiencing increases in absences from essential personnel. Other hospitals in the region are also seeing patients with severe ILI. There are approximately ten thousand sick and worried well in Johnson County with approximately eight thousand of those people in Iowa City and Coralville.

Until recently, the mortality of identified patients affected with avian influenza in East Asia was 45%. Treatment with Tamiflu seems to be the most effective at limiting the mortality of ill patients and as prophylaxis for exposed persons.

The CDC and IDPH currently recommend treatment of all affected persons with Tamiflu as soon as the diagnosis of avian influenza is suspected. The CDC and IDPH recommend that Tamiflu be used for treatment of cases only, due to limited supplies. This decision is supported by initial scientific evidence that using the drug for treatment of cases alone can achieve nearly the same reduction in overall mortality as treatment plus prophylaxis.

The CDC currently recommends that health care providers wear surgical masks when caring for patients suspected of having avian influenza, and Powered Air-Purifying Respirators (PAPRs) when performing invasive airway procedures such as intubation or deep suctioning. To prevent further spread of disease, the CDC recommends droplet precautions for all cases. Many local health care providers are voicing concern because this is different from previously existing recommendations for caring for patients with suspected avian influenza.
Day Eleven and Twelve: SATURDAY and SUNDAY

There are now over 15,000 suspected cases of avian influenza admitted to hospitals across the nation. Five hundred of those cases are in Johnson County and surrounding counties. Linn, Scott and Polk Counties are also admitting patients with severe ILI. Several hundred people have died nationally so far, including fifty people in Johnson County. Local and hospital pharmacy stocks of Tamiflu are depleted. UIHC and Mercy Hospital are full and hospitals throughout Iowa are reporting an increase in employee absences and strains on available resources. EMS is overwhelmed between calls for respiratory illnesses and requests to transfer patients from local hospitals to facilities farther away. Local residents are flooding University of Iowa phone lines seeking information and support.

A pharmacy in Coralville witnessed a break-in before dawn Saturday, presumably by persons looking for Tamiflu. Several local retail businesses did not open today, citing lack of workers and lack of customers as reasons. Out of state delivery persons are hesitant to enter Iowa City; approximately one third of all expected deliveries to the University of Iowa did not arrive on Friday. Ill and worried well students are calling Dining Services requesting that meals be brought to their dormitory rooms.

Students continue to leave in droves. By Sunday night, only approximately thirty percent of all students remain in Iowa City. The majority of the students remaining on campus lack vehicular transportation, are international students who cannot fly home, or are graduate/professional students who do not want to fall behind in their degree program.
Days Thirteen and Fourteen:  MONDAY and TUESDAY

The Federal Government Response Stage is 5, spread throughout the United States. There are almost 30,000 cases reported nationally. Iowa City is severely affected. Several UIHC and Mercy Hospital workers have become infected with avian influenza, and three have died. UIHC and Mercy Hospital continue to report much higher than normal staff calling in sick.

University of Iowa students remaining in Iowa City complain of acute depression and anxiety. There is significant anxiety and stress among public safety and healthcare workers.

Several well known privately owned interstate bus companies announce at 11:00 AM Monday that they are cancelling service to Eastern Iowa for a minimum of one week. Approximately fifteen percent of faculty members are ill, staying home to care for ill family members, or voluntarily socially distancing themselves for fear that they will contract avian influenza from a student. The remaining faculty members are emailing department heads and deans, inquiring what University of Iowa long terms plans are.

A football player emailed the UI Family Care Center, stating that he could deliver food to people who are sick at home, but he does not know who to contact or how to get started. Several messages indicate that students are already helping sick people by delivering food, helping with household tasks, or babysitting young children whose parents are incapacitated.

The email message from Leah’s mother was forwarded to a local newspaper, which published the email in its entirety as well as all of the attached photos. The corresponding article has incorrect scientific information and asserts that the University of Iowa “is essentially shut down and might not reopen for months.”