Interview with Richard Hull
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Interviewer: Newlyn Hosea

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Hosea: This is Newlyn Hosea recording an interview with Dr. Richard Hull on August the 20, 2008 at his home in Springfield, IL. Doc, I think first I notice that you were born in Missouri. Can you just give us a little background of how you started in Missouri and ended up in Illinois?

Hull: Sure. I was born in Hannibal, Missouri, and I went to grade school and high school there; up 'til 13 yrs of age I lived in town but kind of in a rural area, but still in city limits. Then after 13, we moved to a small farm about a mile and a quarter to a mile and a half out of Hannibal, folks and I. I was only a child and we built a new home there in 1949. I finished high school in '51 and I started my college at Hannibal LaGrange College and attended there for one year. After that I transferred over to University of Missouri; was there for seven years, received a bachelor's degree in Agriculture Husbandry and Agriculture Chemistry, then continued to study Veterinary medicine and finished up receiving that degree in 1959.

Hosea: What kind of a farm was it you grew up on?

Hull: Well it was a small farm. It was only forty acres. My folks still worked in town. But it give me the advantage of having a horse. We had cattle, milk cow, we had hogs. It supplemented the income of my folks to the extent that they could go ahead and send me to college. So it worked in quite well.

Hosea: And your interest in Veterinary medicine, was that an early thing or did that develop during college?

Hull: No it was an early thing. I think probably I wasn't any more than ten years old that one of the local veterinarians came out and treated a cow that consumed too many green apples. In treating that animal why my dad mentioned that that was a good occupation and maybe I should pursue that when I got a little bit older. I never forgot and as a result I pursued that vocation. I have been very happy with it and it has been very good to me.

Hosea: Can you describe a little bit the process back, I guess in the late '50s, of going through the Veterinary School? How many years are we talking about; was there a practical part of it and so on?

Hull: Well … The minimum amount of time was in six years. Two years pre-vet, four years the Veterinary School. I went ahead and proceeded and got my B.S. degree before I went into Veterinary School, so I had eight years of college, seven of it at the Columbia campus at the University of Missouri. That's still pretty much what it is today, although we see a lot of people going in applying for veterinary schools with Master's and PhD's.

Hosea: And then after veterinary school, from your written material, you decided to start your own practice.

Hull: Yeah, prior to that, I interned with a practitioner up in Iowa; I particularly liked that it was food animal practice up there, particularly swine. That was more or less my specialty. After graduation, this particular veterinarian invited and encouraged me to come up and go into practice with him and I pursued that from June until November.

Hosea: What year are we in now?

Hull: We are in 1959. After being up there, number one, my folks weren't getting any younger and I wanted to move closer to them. Where I was located was in southwestern Iowa and it was 5 or 6 hours drive up there for the folks to come up and visit us. So, after a lot of consideration I decided I would look for something little bit closer. While I was in college I looked through a lot of the farm census books and found out the places close to home—meaning Hannibal that would be—I would find a high population of pigs. In doing that why I found out that Pike County, which is just across the river from Hannibal, was a good location. I had friends there that I went to high school with that lived just across the river from Hannibal in Illinois. They more or less encouraged me to look at a practice in the hog area of Pike County which would be the eastern part of Pike County. In doing so I found a place, Griggsville, which is just north of the county seat by about eight miles. It was a nice community. It was clean. It was an English type of people that

settled there early in the 1800's. So we decided that we would stake out our claim as a veterinarian practice there.

At the time there wasn't a veterinarian practice. The closest one was in Pittsfield which was that eight miles and that was the county seat. We moved there and quite frankly I guess the good Lord was with us, because from there on I was busy from the day I opened the door. I grew the practice into two more practitioners. We also had established practice in the county seat of Brown County which was about twelve miles north of Griggsville.

Hosea: You were a vet thirty years or more, but in those days—we're in the early '60s—can you describe a typical hog farm back then and how many pigs in combination with acreage and so on.

Hull: Sure. The average farmer—I am talking about grain farmer and they always had some livestock. In that particular area they all had pigs. They generally farrowed[1] twice a year, in the spring and in the fall. The average at that time in the early '60s, the average size of their pig flock would be approximately 20 to 40 sows. Like I say, they would farrrow those twice a year outside in what we call huts, and then they had the corn to feed those out. There were ample markets called autobuyers that was set up in the local area that would purchase those and send them on to a packer.

Hosea: Was the typical living of a hog farmer then subsistence, or middle income or how would you describe their lifestyle? Was it a comfortable one economically?

Hull: Yeah, during the '60s and '70s there were good years for the farmer. Some of the farmers didn't particularly like raising pigs, but they did it. They called it the mortgage lifters because they were actually money makers.

Hosea: Can you describe your basic routines? What did you spend a great percentage of your time as a veterinary doing? Or was it so variable?

Hull: Well, in food animals it was somewhat variable. We tried to cut down as many, what we call fire engine calls as possible; those are the calls that they call up and say "Doc, I got a cow that's calving. You have to get here now." They can really mess up a daily schedule when you try to put one of those into an already busy schedule, but we took care of those. For the first seventeen years while I was in practice there at Griggsville and the Pike County area with the solo practice I had no help. It was the 21/7 type of practice, but most of it was lined up stuff. Meaning, particularly in the summer months we get started 5:30 or 6:00 vaccinating hogs. We may vaccinate anywhere from five hundred to a thousand depending on the day; then after that we would pick up the emergency calls, and we was busy. In evening as the practice grew why I started lining up small animals; and it grew every day.

[1] Farrowed: bore a litter of piglets.

Every night I would go out from six o'clock in the evening until sometimes as long as midnight if we were doing a lot of surgeries.

Hosea: By small animals what do we mean?

Hull: We mean dog and cat practice.

Hosea: Pet kind of situation.

Hull: Yeah.

Hosea: I have to ask this if I don't ask you anything else in this interview. But, you're looking at a fan of the TV series *All Creatures Great and Small*[2] (laughing)

Hull: (chuckles) Yeah.

Hosea: I have to ask you how that series hit you. Did that it hit you as the real life you led?

Hull: Yeah, in fact if I was a story writer, there was so many things in his practice that paralleled mine; it was just reflection on my type of practice where they would go out. After I was in practice for about three or four years I started getting interns, mostly from the University of Missouri because they were on a swing type of semester where they would go two semesters and be off one semester which allowed them somewhere around six weeks to two months open time. I would schedule those to come up and I'd hire them to work with me. So the reflection in those series much reflected my type of practice.

Hosea: One of the things that was highlighted in that series was various personalities of clients that the doctor met with. Did you have those as well?

Hull: Oh yeah. Yeah. We had some colorful clients. Some of them were quite eccentric, I guess you'd say, but it was interesting; I wouldn't give that up for anything.

Hosea: I neglected to ask: as you went through veterinary school did you prepare for large animals or small animals or is it all one general program and then you just…

Hull: It's all general programs, particularly the first two years. It's physiology and anatomy. You study all species but you do get a chance, particularly your senior year, to develop a specialty if you are so inclined to do so. That is when I took my internship with a swine practitioner up in Iowa that gave me the opportunity to broaden that field.

Hosea: When you were going through school back in the late '50s was this mostly a male thing or were there women involved in that or what was the situation?

[2] A charming series of stories about a country veterinary practice in England in early-mid- 20th century.

Hull: Hmmm, (phone ringing) pause in tape…

Hosea: Okay Doc, we were asking whether women were a part of the veterinary profession back then?

Hull: Beginning class during that time was thirty students. We had no females in our class. We had one female in the class ahead of us, and one female in the class below us, but they were definitely the minority.

Hosea: I noticed very early in your practice, really in the 1960's, essentially when you started your practice you became involved with various spreading, or threatening to spread, diseases among cattle and hogs. The first one, and please correct my pronunciation here, cattle and swine brucellsis?

Hull: Brucellosis.[3]

Hosea: Brucellosis. Can you talk a little bit about how you got involved in that and what the process was?

Hull: There is quite a story on that. When I was in practice during the six months I was in Iowa, we had one client was having abortion problems. We thought the problem was leptospirosis,[4] which is another disease. This particular client was having some problems with a sow farrowing, trying to birth pigs, and I was called to administer to her. Just being out of school I went through all the precautions I thought was necessary to protect myself from any disease that might be transmitted from an animal to myself. In doing so, apparently something slipped through somewhere, and about two weeks later I became sick. I was checked and I felt like at the time that I knew what it was, because in treating this sow, I did do some blood sampling and found out they had swine brucellosis in the herd. I came down with that form of brucellosis myself which is called undulant fever. So I fought that sporadically even after I left Iowa and established a practice in Illinois. It seemed like if I stressed myself or got some type of cold or something why it would pop up. So I assume today I still carry a titer for it, but I haven't had any problems with it for probably forty years or so. It's not that big a problem now, but it was a threat to humans. The most common form was the one that's in cattle and they generally pick that up from drinking unpasteurized milk. So undulant fever is one of those diseases that can be spread from animal to human.

Hosea: Evidently you ended up having a pretty big part in the state-wide or regional fighting of this disease?

[3] Brucellosis: an infectious disease caused by contact with animals carrying Brucella bacteria. Acute brucellosis may begin with mild flu-like symptoms or symptoms such as: Fever; Abdominal pain; Back pain etc.
[4] Leptospirosis: a contagious disease affecting both animals and humans and spread by infection with a bacterial pathogen called Leptospira; may result in chronic liver and kidney disease.

Hull: Yeah. At the time I established the practice the federal government was sharing costs with the state government to eradicate brucellosis in cattle and swine. It supplemented my practice quite of bit because we had a lot of cattle in the area. It's not too glorified to go out and test cattle all day, but when you got a family you chose those things to do and I didn't really mind it at all. In fact, I enjoyed working with cattle. We got in to several herds; we cleaned up. That means the federal government would come in and pay indemnity to the owner. These animals were edible after they go through the slaughter process. They were edible and the meat was okay. But on top of that value they also got the indemnity of fifty or one hundred dollars, depending on when they were slaughtered and this type of thing. So it was an incentive to the farmer to get rid of his herd if he had positive animals. Then, of course, the state put regulations in place—federal government as well—where an animal that was sold had to be tested for brucellosis and found clean before it could go through the sale. So that was the extent of that. We thought—"we" being the state—thought we were pretty well cleaned up with brucellosis in both cattle and swine and pretty much in cattle for sure. I happened to find a hot spot in my practice where we found some swine that kind of surprised everybody, even the state, that we still had some swine with brucellosis. But we eradicated that herd, did testing around the herd, found it hadn't spread anywhere, so we don't really know; we assumed it was probably brought in by a male hog that was positive that spread it to the herd.

Hosea: I noticed, essentially for your whole career, you've been dealing with various and sundry kinds of this sort of thing. Did this serve as kind of an education for you in terms of what works and what doesn't?

Hull: Yeah. I think it did. We learned a lot. I mean, not only I but the state on how to identify, control and eradicate a disease. TB was one of the first ones and that was before I got out of practice; we've pretty well cleaned up with TB, then brucellosis.

Hosea: That one you mentioned in 1970's was pseudo-rabies. Was a –

Hull: Pseudo-rabies. And that was for a long time considered to be just a sporadic disease in swine. You occasionally saw it in cattle. It was running the swine that was carrying the disease, but it wasn't really a major problem until we started seeing swine confinements.[5] For a long time I've considered that virus went through some kind of a change when we started confining them and it became more virulent. That means it's a stronger virus than it was previously before we saw any confinements. So I think we saw a change in the virus; it had become more of a problem. Before we started a clean-up program, in the state, and then at the national level as well, we saw a lot of herds affected with this, mostly in the form of abortions and weak pigs we call shaker pigs, where pigs are born they shook and couldn't stand up, and that kind of thing. They were pretty easily laid on and that type of thing.

Hosea: Was this at all a danger to people, or was this simply for animals?

[5] Confinements are confined areas in which swine live in very close quarters without access to the outdoors.

Hull: It wasn't a public health problem at all. That's why they call it pseudo-rabies; it's not like rabies where the symptoms are kind of similar. You see a nervous form of it where they circle or become uncoordinated, but other than that, other than the symptoms that are exhibited by the disease, it's not a public health issue.

Hosea: Was this just essentially with your clients, or did you undertake to do some regional or state kinds of things with pseudo-rabies?

Hull: Yeah. As it became more evident that the swine population was becoming heavily populated with the virus, with no controls out there, people could sell animals without negative tests; they could be positive. It was just beginning to spread itself. So the state decided it would establish a pseudo-rabies committee, guidance program, where they would establish some kind of regulations controlling the disease. I was named to be on that first state pseudo-rabies committee. Then there was some funding that came from the federal government; they wanted to set up some pilot projects in the state. It was fortunate enough that Pike County was one of those pilot project counties; there was only two in the state that was named pilot project counties. The goal of that project: to see if we could eradicate pseudorabies from a herd or from an area by testing. At that time there wasn't a good vaccine out, so it was either test and remove, or live with the disease. The outcome of that study was that it could be cleaned up. It could be cleaned up by testing, remove if there wasn't too much infection in the herd at the time, or if there was a lot of infection we found out you could eradicate the herd, eliminate the herd. I might say that the animals, here again, was sent for slaughter since this wasn't a public health issue, so those herds that were eradicated, the farmer was paid indemnity plus the salvage value, the slaughter value of the hog.

Hosea: Before we go on to what ended up to be essentially a second career with the state, in those thirty-odd years that you were in veterinary in Pike County, can you describe some of the major changes that happened, both in agriculture, in farming and with veterinary medicine during that period of time?

Hull: I'd say that probably when I got out of practice, a large farm was five to six, seven hundred acres; that was considered a large farm. A large producer would probably have no more than a hundred sows and he would rotate the farrowing cycle on those where he could farrow about every month to six weeks and keep his production level. As time went on, as hard times come along and as the farmers grew older and without any of their children coming back to assist with the farm, they decided they would sell the farm or lease it out. As a result, the farms became bigger and then we saw people specialize without too many acres, go into large hog confinements with up to six, seven hundred thousand sows on one facility. Those were the changes that I think that we saw. The human population in these heavily populated swine areas started being reduced. There'd be fewer and fewer taking care of more and more acreage and livestock. So that trend has continued to the point now that we see commercialized farms where it's owned by a lot of corporate type of situations. The same way with the livestock situation where they have as many as over a hundred

thousand sows at different locations but under the same ownership, whether that'd be corporate or very few individuals. I haven't had that type of an operation in existence today. So, has it helped? I don't know. It hasn't helped the farm community. It's actually hurt it the same way I guess you could say that the WalMart has hurt the small businesses in these rural areas where they would come in and take the place of a lot of general stores that had been in existence from one generation to the next.

Hosea: I'm going to betray great ignorance here. Were there changes in the nutrition of hogs, hormones, this kind of stuff? Did that develop during that time?

Hull: Yeah, in fact, before that. University of Illinois in the early 1950's came out with a corn-soybean ration, which was revolutionary, and developed the standard for the way that hogs, and cattle as well, were fed. Prior to that time they were using tankage—meat scraps as their protein sources—and now they've gone to using the soy-corn ration which is cheaper and probably develops a better product.

Hosea: And the veterinary practice. Did that have huge technological strides during that thirty year period? Was your practice a lot different in the late '80s than it was in the early '60s?

Hull: Yes. I think regardless of how large a community you lived in, I think that there was a gradual movement from food animal to small animal, cat and dog. And a lot of the practices in these rural areas are nothing more than companion animal, the horse and the dog and the cat. That's a big change, you know.

Back in the late 1800's and early 1900s the veterinarian was referred to as the horse doctor, you know. When horses left the country they thought that veterinary practice would also leave. But then we saw a change in the way food animals were being raised and then some with the small animal, companion animal thing, and now it looks like we've come pretty well full circle where a lot of the practices are back to treating horses and dogs and cats.

Hosea: And medicines. During that period of time there was, of course, an explosion in the number and kinds and effectiveness of medicines and so on that were available. Was there an equivalent renaissance in medicines and animals, whether small animals or large animals?

Hull: Oh, yeah. I think that for a long time, you know, what was available for humans was also available for animals. It was that way up, probably through the '80s. Then people were concerned about developing bugs that were resistant to antibiotics. A lot of them were blaming that on the veterinary medicine phase of medicine, because they felt like if you were exposing that bug to that same drug that was being fed to the hog or cow, sooner or later that bug is going to be resistant and carry on through to humans, and if humans use that same drug they're going to see nil effect.

Hosea: Towards the beginning of the 1990s, 1992, I believe you decided to accept the position with the State as State Veterinarian, among other things. What was the process of that decision? How did you decide to leave practice and go into that position?

Hull: Well, I was in practice there in Pike County for thirty-four years and I thought and probably so, that I'd seen, I'd delivered about every type of birth in cattle and pigs that was out there. I'd seen most and could recognize most of the diseases and things. It wasn't really the challenge out there. I had two partners that were with me and when the opportunity arose, with little consideration I thought that a career change was in order and followed that.

Hosea: Was this a job that was offered to you, or had you been involved in politics or apply, or how did this come about?

Hull: No politics. I had been involved with various programs, like the pseudo-rabies programs and brucellosis programs. I'd been involved with the Illinois State Veterinary Medicine Association. So when the then-Director Illinois Agriculture contacted me and wanted to know if I'd be interested in the job.

Hosea: What was his name?

Hull: Pardon?

Hosea: Do you happen to remember his name?

Hull: It was her name. It was Becky Doyle.

Hosea: Becky Doyle.

Hull: She asked me if I'd be interested in the job. She called me in January and I said, Well, possibly so, but I'd have to know a little more about job description and that type of thing. Then the State Veterinarian was a very good friend of mine, Paul Doby. And so, things went on. She said she couldn't hire; there was a hiring freeze at that time in '92, around January. Around June of '92, I received a call back from the Department asking if I was still interested in that job. I said, I really haven't given it a whole lot of consideration because you said it was a freezing on hires and I kind of dismissed that there was any possibility. She said, We'd like for you to come over and talk. So I went over there. In our conversation I said, You know I'm not a politician. And she said, Well, Doctor, I'm not looking for a politician; I'm looking for a veterinarian. Kind of clinched the deal. My wife went with me when I went over there. When I went back to the car, she said, Well, what do you think? I said, I think I'll take the job. (chuckles)

So it was an interesting eleven years. I retired from that job in 2003. In the process we've cleared up pseudo-rabies from the State; we had West Nile virus

come along; we had chronic wasting disease in the deer and the elk. It was an exciting period. As those things come along we initiated programs that would address their control, if not their eradication.

Hosea: How would you describe your responsibilities? What were you supposed to do?

Hull: Well, it was a regulatory job. It was seeing that all the livestock markets were properly licensed, the dealers were properly licensed and they were carrying adequate bonds. We worked in conjunction with the USDA on those projects. We would write laws and regulations that would pertain to the various issues, diseases that would come along. We had an oversight committee called the Livestock Commissioners that would overlook these regulations and either approve them or make minor changes or disapprove them if they thought it was justified to do so, which never did happen. We always got the nod from them. From there it went to JCAR, then JCAR…

Hosea: JCAR? Can you?

Hull: It's the Joint Committee on Administrative Rules.

Hosea: So you were involved in formulating policy and making changes as they were necessary.

Hull: Yes. Yes, and for the most part we had very little opposition to some changes. I know that the biggest opposition was when we made it mandatory that horses be tested for Swamp Fever before they were sold, either at an auction or privately. We had some horse owners that were a little bit up-in-arms about that, but it was a good regulation and we reduced the number of positive animals in the state enormously from what it was to start with. It was a good regulation.

Hosea: In general, would you describe the climate. All the various interests that are involved with the agricultural economy and with the health issues, was it essentially a cooperative atmosphere where you feel you were able to do your job and have the assistance of various groups?

Hull: Yes, it was a diplomatic job. I tell you, I had focus groups that would address issues in their area. We wouldn't embark on any type of legislation without first running it past those focus groups. I feel like it is a mistake when some of these lawmakers initiate something, particularly if they are not familiar with what the subject they're writing laws on and then they find out that at a later time if the law did pass it doesn't work. So I felt like the cooperation we'd come up with, we'd have key leaders on these focus groups that could explain why and how to the various livestock groups.

Hosea: Let's go through in a little detail, not excruciating, but some detail some of these diseases that you dealt with that were important. One of the most horrible titles I've

ever seen for a disease, chronic wasting disease. How did that come up and how was it dealt with?

Hull: Chronic wasting disease is a brain-altering disease that we see in cervids, deer and elk in particular, that we first saw in Wisconsin. We thought—we being Department of Agriculture and the Department of Natural Resources—thought we were free and clear of it until we found a county just south of the Wisconsin-Illinois border that tested positive for it. After that we developed some regulations. Here again we worked with the farmed elk and deer people and the people from Natural Resources and we developed some regulations that would require testing any animal that died suspiciously; brain would be removed and tested in our laboratories. If found suspicious why it was sent to the national laboratory in Ames [Iowa] for confirmation. If it was found positive then, if it was farm deer, we'd put that group on a quarantine; if it was a wild deer, why Natural Resources would do a harvest around that area and see if they could find any additional positive animals or put a search out make sure that anything that is looking abnormal why it would be euthanized and tested.

Hosea: And that was pretty well eradicated after a time?

Hull: No, it isn't eradicated. Unfortunately we still see it moving south on us. Some of these counties that are heavily populated with deer, we hope that it doesn't get in those.

Hosea: Is deer the only danger of this? Or other animals or people?

Hull: People, no. Other animals would be elk and like I say cervid, anything that fits under the cervids.

Hosea: That word is unfamiliar, servant, you say?

Hull: Cervid, c-e-r-v-i-d

Hosea: And that's that class of animal?

Hull: That's a class of animals that have antlers and shed their antlers.

Hosea: Oh, okay. Another disease that you evidently had major interaction with, John's disease?

Hull: Johne's.

Hosea: Johne's disease. Okay.

Hull: Johne's. Uh-huh. That was named after the guy that found it; his name was Johne. So it's Johne's disease. That's a disease in cattle that may or may not be a public

health issue. Some think it's related to Crohn's disease in people, and can be picked up through the milk. It's a bacterial disease. The English has worked with that and found that even at some of the temperatures that they pasteurize doesn't get rid of all of that. The disease is caused by paratuberculosis.

Hosea: The program evidently developed a certification program and a risk management program. Was this kind of a two-pronged way of dealing with this situation?

Hull: Yeah, it was a voluntary program. We thought that most of it would be with the dairy producer. We found out there was some beef herds out here that was having some problems with it, too. So we worked with both beef and dairy. And it was well accepted. It was federally funded for a clean-up program; the last I heard, funding has dried up and I don't know. Way I understand the program, it's kind of floundering out there, I think.

Hosea: So certification certifies that a particular group of animals doesn't have the disease and risk management deals with it when it happens?

Hull: Yeah. Risk management is the amount of animals you got that are positive. I mean, if you got a high population of animals that are positive, then it might be advisable to eradicate the herd. If you got a low percentage, it was advised that you get rid of those positive animals and test. The problem with it, the test that we have out there today, is that the animal doesn't test positive a lot of times until they're year and a half or two years old. As a result these animals could be carriers of it for that length of time and still not test positive, so that was the reason for the requirements to be flexible enough that if you've got a herd out there with it that you would test and if you found anything we would recommend they sell those positives and then by doing that eventually work into a clean herd.

Hosea: And then a disease that I'm not even going to try to pronounce. I'm going to let you do that. B-S-E?

Hull: Oh, bovine spongiform encephalopathy. It's the old mad cow disease that scares people to death. England had it and between that and the foot and mouth disease they had over there, just about eradicated their cattle herd. We found it in a few; most of those were shipped over from Canada. I think in fact they all, without any exception, were shipped over from Canada. They were raised in Canada and then shipped into the United States, but yet found to be positive here in the United States. Here we had a program if you had an animal that was showing neurological disturbances, we had the funds where we would go out and harvest the brain and take it to the lab and have it tested. We tested quite a few here in Illinois that showed those type of neurological disturbances but yet tested negative so…

Hosea: BSE now is the same as mad cow?

Hull: Yes.

Hosea: Do you see this as a continuing potential danger to United States agriculture or is this…

Hull: They think they've pretty well cleaned it up. In fact, to the point where there were some countries, Japan and Korea, stopped any import of United States beef as a result of it. Since then, I think all of those embargos have been lifted. I think USDA feels quite comfortable we don't have a problem here in the United States. Although in England, I think it all goes back to where they were feeding animal products into animals. They would feed tankage, a small percentage of tankage. And, here again, the processing of tankage, the cooking and so and so forth, doesn't destroy that prion, p-r-i-o-n, from and it would still be a viable—whatever prion it is--which I don't anybody has come with a good definition for it yet. It is a protein substance that mimics the protein that's established in the brain, so that it can be absorbed and eventually ends up in the brain and causes physiological changes in the brain. Where you get this spongiform formed it develops a sponge-type of consistency of the brain. The fear of that is, of course, it is transferable over to people if they consume food. And like I say, cooking or normal processing doesn't get rid of it.

Hosea: The last disease is one that's been in the headlines and this is definitely a person-related item, public health: West Nile virus. When did you first about that and how did that develop?

Hull: 1999. We started seeing it in horses and it became quite a problem in 2000. After that there was a vaccine developed and I think it's pretty well held it's course and fixed to people that's vaccinating their animals. But, we saw neurological problems in those horses. About fifty percent of them would die after they started showing symptoms of it. I can't give you the figures right now, but it caught the attention of a lot of the horse people because a lot of these animals that show symptoms went ahead and died. It's spread by a mosquito. Like we say, it is a human disease as well as an animal disease. It transfers over, not from the horse; it still needs the mosquito vector as the transmitting host to the horse and to the human.

Hosea: So a mosquito would bite a horse and then bite a human and the disease could be transmitted that way?

Hull: Yeah. Or a bird. Birds are another host that seems to be affected by West Nile.

Hosea: Now when you have a disease like West Nile or Mad Cow that has the component of animal disease and a public health, human disease, is there cooperation between agencies in determining how this gets approached? Or does each kind of act on its own, or how does that work?

Hull: Yeah, we had great cooperation between the Illinois Department of Agriculture and the Department of Public Health here in the state, with West Nile and the Center for Disease Control down in Atlanta. We worked through them and that's another field

in veterinary medicine that wasn't opened up when I first got out of school—public health. We're seeing so many more diseases that affects animals and transfers over to humans or humans that transfers back over into animals. The closer that humans live with animals it even comes more potential.

Hosea: Now an actual task force formed, or you just communicate and cooperate with each other, or how does that work?

Hull: Well, it depends on the disease. If we're talking about West Nile there was not a particular task force. When we were seeing so much of it in 2000 we had weekly phone conferences between the Department of Ag and Department of Public Health so we could keep them current with what new cases we had and they could keep us current with what new cases they had, and what areas. Most of the time we saw it had become a big problem in one particular area we saw as well as humans.

Hosea: Okay. Now on 9-11, 2001, of course, we got some new phrases, one of which was Homeland Security. When we had this Terrorist Act, inside the State Department of Agriculture was it immediately seen that there were potential vulnerabilities of the country to terrorist acts in agriculture as well as some of the other obvious things?

Hull: Yeah, yeah, and we were part of the anti-terrorist group. We established several training programs that brought IDOT, the Public Health and most of the agencies in the state together. We'd have various exercises that would try to get us equipped for, hopefully, a real attack at some point in time. After attending several national meetings, I brought it to the attention of our Homeland Security group that agriculture needed to be at the table on these exercises because, I said, it could be an agent that could be a human, affect the animal population, and devastate agriculture here, whether it be a plant or animal. Then they saw what happened with the foot and mouth disease in England and realized that there was a potential danger there.

Hosea: So in your opinion there are vulnerabilities if terrorists knew what they were doing in terms of our food supply, agricultural economy, and so on.

Hull: Oh, yeah. I think that the way that livestock moves anymore from North Carolina to Kansas to Nebraska, in a matter of hours we could have a seeded down situation with a potentially dangerous, devastating disease in animals.

Hosea: What kind of a situation did you say? Seeded down?

Hull: Seeded down, yeah. Where a terrorist would use, say foot and mouth disease virus, and get on a particular farm and these animals be moved to another location before they even become symptomatic.

Hosea: Oh, that's the seeding process, you're talking about, okay.

Hull: Yeah, the seeding, yeah.

Hosea: And that process could go pretty quickly from what your…?

Hull: Yeah. By the time they start to become symptomatic that virus could be moved to several states.

Hosea: You were involved in something called the simple states' Animal Emergency Council? Does that have to do with this or is that something else?

Hull: No, that's this. That would be agro-terrorism, as they would speak of it.

Hosea: What are the solutions to these? Is it just being vigilant, or what's involved with this?

Hull: Well I think, you know, you have to have cooperation with all state and national agencies where they move in unison together on a situation whereas you don't see one group doing a certain thing and another group does something else. I think that training, particularly in diagnostics, is important. The sooner you can have the capability of diagnosing the disease rapidly, I think then that would be advantageous to control that disease.

Hosea: In general, do you feel comfortable with the situation, that we know what's going on and are aware of it and are dealing with it appropriately?

Hull: Umm. If you're asking, do I think we're ready for a foot and mouth disease outbreak? No. I think there's been a lot of exercises out there. I think there's been a lot of energy and money spent to address the issue, but I think that actually being ready for it, I don't think we're any more ready for that than the United States was for Katrina, the hurricane we had in New Orleans.

Hosea: At the end here, just some general things. You have an incredible list of awards that you've gotten over time. Which of those was most meaningful to you, or a couple that were most meaningful to you?

Hull: Service Award from the University of Illinois I thought was. That particular award, I wasn't there to receive it; I had a meeting out of state that I couldn't miss and I had a colleague pick it up for me, but that certainly is one that means a lot. Of course, being President of the Illinois Veterinary Medical Association and my association with that group has meant a lot. I'm trying to give back what great amount that I have been able to get out of veterinary medicine. I don't know, I think that I've got several awards from both the national academy and from the American Veterinary Medical Association.

Hosea: Over your career, what gives you the most satisfaction looking back at it? What aspects of your career do you get the most satisfaction from?

Hull: Well, I guess the satisfaction I got of practice was the fact that I was able to pioneer a practice in a town that had never—or it had been years since there was a veterinarian there. And, the fact that I could grow that into two clinics and three veterinarians, that was a … And then, of course, becoming the Illinois State Veterinarian was certainly something that I consider a highlight in my profession because that gave me an opportunity to work with the profession, not locally, but in the state and nationally as well, and develop programs that are still in existence today.

Hosea: And, finally, is there anything else in your career that I didn't ask or talk about that you'd like to get on the record before we conclude?

Hull: No, I couldn't have done it without the support of the family and that goes a long ways. They were supportive and all of that. Being able to raise two boys and a daughter and a practice that was busy and they kind of, at one point in time become part of that practice, of course. So it's been a fun trip. I've enjoyed it and I hope that I can give back a little of what I've gotten out of it, received a lot from.

Hosea: Thank you for your time, Dr. Hull.

Hull: Okay, well thank you.

(end of interview)