INTERVIEW WITH ALLAN HUNTER
MARQUETTE, MICHIGAN
JUNE 15, 2009

SUBJECT: MHS Project, History of Heart Surgery and Marquette General Cardiology Program

MAGNAGHI, RUSSELL M. (RMM): Interview with Dr. Allan Hunter, Marquette, Michigan, June 15th, 2009. I can call you Al?

HUNTER, ALLAN (AH): Sure, absolutely, I'm just Al now, I'm not Doctor anymore.

(RMM): First question I always ask, what is your birth date?

(AH): I was born June 21, 1939.

(RMM): Ok, could you tell us where you were from and where you grew up?

(AH): Yeah, I was born in **Poe** River, Columbia (Probably Powell River, British Columbia), which is a pulp and paper town. My parents went to Tasmania to start the pulp and paper industry with a group of Canadians in 1939. So I was in Australia until I was age 5, and then I came back to Vancouver and my dad started a small company doing cabinet work and later he started building cable wheel drums and pallet boards, that kind of thing. I was raised in North Vancouver, went to North Vancouver High School, went to the University of British Columbia. I got in early to medical school. I didn't get a bachelor's degree, just went three years and then into medical school. I was one of the first that they ever did that with.

(RMM): Before we go, what got you focused into medicine?

(AH): I didn't come from any medical background at all. I had a football injury one time and I ended up in a hospital with a little bit of **osteo (osteomyelitis) in my fibula** from the football injury. I was in there for only about two weeks, got antibiotics in those days. Penicillin is what we had. Some **debridment** on it. It cleared up. When I was in the hospital, I thought, "gee, this is a pretty nice working environment". You know, this was back in the ether days, but still, I had a little introduction to it then. And when I went to the university I met a young man and his name was Brian Hunt. He came from a medical family. His father was a gynecologist and he had a brother who was an orthopedic surgeon. He was going to go into medical school, and I thought "gee, that would be a nice thing to do". I would be interested in medicine. But I was very interested in biology and I worked for the Fish and Game department in the summers for British Columbia so I applied to a medical school. I didn't realize in those days that you applied to many medical schools you wanted to get in. I applied to one you'll be seeing. After my third year, they told me "you better take another year and get a bachelor's degree". I said, "well, fine, but I had my interviews early because they introduced us to an early program you can go in" and I thought "well, if I can save a year, I'll cut my expenses" because I was paying my own way at that time. I had a couple of jobs, always had a job. I was working again for the Fish and Game Department and I was on Vancouver Island for about two weeks before I was supposed to go back to school. I got a telegram saying "are you still interested in medical school because two young men who had been accepted decided they were going for chemistry". I don't know how far down the list I was, but when they got to me, they asked if I wanted to go. I said "sure". I sent a telegram back and then I went to medical school, and that's (how) I got in. And the modern process to get into medical school is much more difficult. In those days they used to base getting into medical school on two things: one was how good you did at organic chemistry and two, how you did in the interview. When I went to do the interview, at the time, I was a rugby player (and) one of the guys that interviewed me was a rugby nut. So we talked about rugby and he knew what team I had played on and all this stuff so that made me very comfortable. I think that helped me get in early. Medical school experience was great. I really enjoyed medical school, got into

it. I started getting involved with heart surgery by working in a lab with one of the heart surgeons there that was interested in working on congenital heart disease. I became interested in pediatric cardiac surgery and I was interested in a condition called **tricuspid atresia** where these children are born with occlusion of the tricuspid valve which is the first valve from the right atrium to the right ventricle [between the right atrium and right ventricle]. They are really sick little kids because the blood can't get into the right ventricle and it can't get out to the lungs so they have an **atrial septal defect** and they have to have a **patent ductus [arteriosus]** in order to get blood to their lungs. They are deathly ill, so I was working on an operation on dogs where I would connect a tube between the right atrium and the pulmonary artery and then I'd put a little suture around the tricuspid valve of the dog. And then I brought it out through the skin. And over the six week period I slowly tightened the suture down so the valve would **occlude,** just like in the condition. I would then rely on the blood flowing from the right atrium into my conduit [and] into the pulmonary artery to get blood to the lungs. While I was doing that, it became very complicated and by the time I was getting survivors in dogs, I graduated (from medical school). I wrote a little paper on it and I never did much with it. Oh, about ten years later, some guy did the exact same operation on these kids but he put a valve in the conduit because then you wouldn't get pressure in the atrium and he got famous for the operation and they named it after him. Those things happen. I was very interested then in cardiovascular surgery and it was kind of in its early days, this is like 1964, 62 actually. So I graduated. I applied to quite a few residency programs; I wanted to be a surgeon. I was interested in being a cardiac surgeon. When I was in high school, the first heart surgery had been done in 1954. I read that in the paper. I thought "this would be very interesting to do, heart surgery". By the time I was in medical school, of course they were doing heart surgery and most of it was aortic valve surgery and mitral valve surgery and I was at Vancouver General Hospital through the University of British Columbia. Subsequent to that, I applied to all of these schools down here (in the United States), the University of Colorado, the University of Michigan, all the places [where] I knew they had fairly good heart programs and Michigan took first and they were my first choice so I went to Michigan. I did general

surgery there and I did an internship, maybe the last of the rotating interns. I went through obstetrics and gynecology, I wanted to do all of that stuff, but I was interested in pediatric surgery so I wanted to see how pediatrics worked. This was kind of the tail end of the patients who had a lot of congenital things that they didn't really understand and they were working on. **Thoracic surgery and general surgery,** they were just kind of learning how to do vascular surgery, how you do it, what do you use for conduits, what kind of suture do you use. So it was very interesting at the time, but I got drafted. Because I emigrated down here so I got into the army.

(RMM): But wait a minute, you weren't a citizen. But because you were here….

(AH): When I entered my internship I got the selective service notification and then I went down and said to the girl, "What's my chances of getting drafted?" She said you are on the Berry Plan. I said "what's that?". She said, "Well, if you don't know what the Berry Plan is, you're going to get drafted." I said, "well ok". I did, I got a draft notice and then I said, "you know, if I'm going into the army, I want to do it all the way". I found out all the programs: jump school, flight surgeon school, all these various schools and I applied to all of these schools and I applied to the special forces. This guy that I knew was also interested in doing that. He was from South Carolina. Ken **Drodids (?).** We kind of decided were going to go and try and do all these various things together but it didn't work out that way. When they found out I was a Canadian, I had to go through a security clearance which had to go through the Royal Canadian Mounted Police, and through their whole thing. So, after they checked my background out, while they were checking my background out, my friend went into the program. I still didn't go in because I didn't get my security clearance. I needed a top security crypto-clearance in order to go into the special forces. So, I had about an eight month period where I didn't know what to. So I got a job with a guy down in Daggett, Michigan. He was the only urologist in the Upper Peninsula. John Heidenreich. John was the first and only urologist at that time and he worked out of Marinette-Menominee Hospitals and he would go down there and do all their urology, and he had a little clinic in Daggett where he would see like a hundred patients a

day. [He] just turned over patients like crazy and had a little house in the back and he would get residents from the University of Michigan to come up there because they'd get a month off a year and the word was out that John paid well so guys would go up there for the month they had off and worked for John and then also have a little mini-vacation kind of thing. They would also go and he'd work their ass off because he was seeing so many patients. All the patients around there would go to John Heidenreich.

(RMM): How do you spell his last name?

(AH): Heidenreich. If you don't know about John Heidenreich you really ought to find out about him because he was really an amazing doctor.

(RMM): Is he still around?

(AH): No he's dead. He died of carcinoma of the lung. French-Canadians moved into that area. But, the **Moravian** Church in Daggett was kind of like the community center and a lot of people were Moravians before I went there. But anyway, I worked for John.

(RMM): Oh, so you came up and worked for him?

(AH): I got a job with John and really found him fascinating because I would see a tremendous amount of patients with him. I would get - I would go down to Marinette-Menominee with him. While he was doing urological procedures in the operating room, I'd see his patients in the hospital, you know, and check them out and make sure they were doing ok and if they had a problem I'd let them [him] know. Then we'd drive back to Daggett and see patients in his office. He would only go down there a couple times a week, but he was in Daggett [at his practice].

(RMM): Just a point of clarification. You have this surgeon in a little village of Daggett who was extremely proficient at urology. He had so many patients he was an expert.

(AH): I think he trained in Detroit.

(RMM): But here, he was the man?

(AH): He was a family practitioner. If you needed one you went to John. The thing is, he tried to make sure there was one of us in that little house behind the clinic because we were the overflow/buffer. In other words, if patients came in during the night, I would see them, at 2 o'clock in the morning, or whenever. And they knew they could come and knock on the door of the little house and there would usually be a doctor there. And you know, they'd come in the middle of the night, great big chain saw gashes in their shoulders from the kickback and finally got to the clinic and I'd have to go clean them up and x-ray them and sew them up, that kind of thing. So it was interesting.

This was 1965; it was a long time ago. I got to know quite a few of the locals because John had his own drugstore right in his office and he had a bunch of local people working for him. He was the local industry. There was nothing else in Daggett other than Bildo's Bar (Bildo's Museum Bar in Daggett, MI). At night, John would sit by the telephone for telephone time from 7 o'clock to 8:30. People would call him with problems or things that were going on and he would answer the phone, [and] smoke cigarettes constantly. He would answer the phone and then two nights a week he would have shot night. And people would come in for their shots, all line up, and he would mix up **cyanocobalamine,** which was B12. [Also] iron, and that kind of stuff - he'd give them these shots and, of course, after he gives them the shots, about five or ten minutes [after], they'd be feeling ten times better than they were when they came in. And that was his psychology work; that was how he did his psychiatry. In every population, there are about ten or fifteen percent of people who believe that

something is curing them when all it is is voodoo. I'm sure he did cure a lot of people that might have had pernicious anemia, or something, with it. He had ultrasound, and he had everything. You could do ultrasound in those days and that was like voodoo, people had never heard of using ultrasound in treatment of patients in '65 (1965). He would get patients who come in with rotator cuff injuries or something and he would give them ultrasound and heat and all that stuff, and physical therapy, so he was a busy guy. And all the years that he was there he never had a lawsuit that I know of. He saw hundreds of hundreds of patients a week. And when he died, they had like four or five lawsuits on him right away because no one was going to sue him while he was alive, they were going to sue his estate. And then his wife died about a year after he did. This was like - I'm not sure what year he actually died but I think it was around '80. Maybe earlier than that. He did a lot for the community there, [a] tremendous amount. He was the only doctor. Then there was a doctor down in Stevenson after that so it sort of took some of the flow off as he got older. I was there until February '66 when I went into the service. I had finally done [received] my [security] clearance.

(RMM): So you were there for just that short time?

(AH): Yeah. I got to know the dentist, he had a dentist in his office too. John Purot. He was a hunter and fisherman. We used to go out at four o'clock in the morning and shoot ducks for about an hour and then we'd rush to the office and see patients and we'd have ducks all over the place. But anyways John Purot was another doctor, he was a dentist, but he was really well known down there. He was killed down in Escanaba when a semi-trailer jackknifed and hit him head-on right under that overpass down there by the pulp and paper mill. I guess it was raining and it killed him and his son and his wife was severely injured. No, it was his daughter that was killed, his son lived. It was pretty tragic when he was gone.

But anyway, I went into the army, I went through all the schools, Fort Sam Houston [Texas]. They taught me how to salute and all that stuff.

(RMM): You went into the rangers?

(AH): I wasn't a ranger. I never was.

(RMM): No, special forces?

(AH): I went right to Fort Bragg. They took me there and then sent me to jump school in Fort Benning, Georgia. And then they sent me to flight surgeon school. I became a flight surgeon and then I went to special forces school. After that I went to Utah because I had my thing, I was a skier, so I had to teach skiing to the special forces. So we went up into [the] Brighton area outside Salt Lake City, parachuted down in there and all this stuff. All these guys from the Salt had the old army skis with the bunny boots and we're trying to teach them how to ski, how to go in a traverse, and kick, turn, and traverse, and get down the slope. And we parachuted into the valley at the head of Brighton there. We had a great time there. Right after that, I got my orders and went to Viet Nam. So I spent some time there during the famous Tet Offensive, I was in I Corps, I was in Company C of special forces out there. I had a little Montagnards' hospital. I took care of Montagnards.

(RMM): So they did have you then, I mean, you did all of this special training, but you were working as a physician?

(AH): Yup. But it allowed [us] to have access to the special forces stuff and we had to use A Camps all throughout Viet Nam and we were responsible for getting medical supplies and medics to them and so on. So when they had combat situations where they needed extra medics, I'd send out (I had action forces of young medics) young medics to places that had gotten under fire from the North Vietnamese. So I was involved in the battle of **Khe Sanh**, and we had a place up there called Lang Vei that was overrun by the North Vietnamese with tanks, it was the first time they had used tanks in that war. I was there until the day before they were overrun. I was running a

med camp, we were going out and taking care of these local Laotians that had been pushed across the border. I had run out of medical supplies and we were putting up Lister bags (water sterilization bags) and I thought "well, I'll go back to **Da Nang** and get a bunch of medical stuff together and we'll get it on a C140 and parachute it in so we'd have all the stuff to take care of the people".

(RMM): So you were trained to go in on a parachute as well?

(AH): Oh yeah, I made like three jumps in Vietnam. Anyways, when I got back the next morning I had arranged all this medical stuff and one of the guys said to me, "You better go to the TOC", which was a tactical operations center. They always had their early briefing there in there morning. They said Lang Vei had been overrun during the night and I couldn't go back. So I kind of got out of there, luckily.

(RMM): So everyone that was there either ended up dead or as prisoner?

(AH): Actually, there was a book written, I think it was Night of the Silver Stars. A whole bunch of these guys survived underground, in an underground bunker system. I think it's called "Night of the Silver Stars," written by a guy by the name of Phillips (William R. Phillips). I read the book years ago, he wasn't even involved with it, but his brother was one of the guys involved, and he had gotten interested in finding out what happened to his brother who went missing in action and was never found. He interviewed a lot of people and then wrote a book about the situation. He had it fairly close but he didn't have it right on. He said there was a group of medics up there the day before they were overrun. I was the one that was there, but he didn't mention me in the book until the very end when I went to pull Colonel Shundel out of the hospital. But anyway, I don't want to talk about this stuff. It's just putting things in context. I took care of a lot of Montagnards, I saw malaria, I saw plague, all kinds of, you know, interesting tropical diseases that really gave me a good understanding of what the heck all that stuff was about. I used to spend nights looking at my PDR (Physicians' Desk Reference) trying to figure out how to take care of patients and

tropical diseases and so on. is what really helped me a lot. In those days they made the Merck Manual (a medical reference book) and you'd open it up and it'd be plague, you know, and it would tell you all about **Pastuerella pestis (now Yersinia pestis, which is the bacterium causing plague)** and all this other stuff. So anyway, I spent a year there and I came back, I think, in May of '68. I started a residency program in Michigan (the University of Michigan) in general surgery.

(RMM): Oh, so you really hadn't started the residency?

(AH): I was a mere intern. I was a rotating intern. Of course, I was very bold. I believed I knew everything about medicine out of everyone I'd know. It was just terrible. But when you come out as a medical student, you think you know everything. It doesn't take you very long [to learn] that you don't know anything. But being with John in Daggert helped a lot because I was able to see patients and see how to really take care of patients. So it helped me when I was in the army because I took care of Montagnards, I took care of my own people. I took care of special forces people, the pilots, the helicopter pilots, their flight physicals and if they developed ear problems, I knew how to take care of them. So, I kind of had a broad spectrum of things to deal with. And, I had the navy hospital right across the road from us in Da Nang, so I was able to use the resources of the navy hospital also to take care of both Americans and indigenous [people]. Because when I get a bunch of wounded, I'd fly in on the helicopter with a bunch of Montagnards shot up, we'd fly in and land and there'd be a bunch of marines that may be involved. I'd take care of my Montagnards and they'd take care of the marines. They'd take care of the Montagnards for me, like if I needed an operation [performed]. (There was a guy by the name of Larry Carey there who has ended up as the head of surgery at Ohio State). Then I'd take them over to my little hospital and do the wound care, post-operative care.

(RMM): Now were these Montagnards , were they fighting for us, or just civilians?

(AH): They were fighting for the special forces. We'd send in a team of 12 guys, they were called an A Team. They'd go in a village, all these various places all throughout North Viet Nam, and they would get the local Montagnards, who hated the local Vietnamese who were in a conflict with them and had been for centuries. So, they (the Montagnards) were easy to recruit to fight the VC (the Viet Cong). We'd make a little force of these local Montagnards and teach them how to shoot weapons and blow up people and kill people and go and do all that stuff for us. So we had Montagnards and Chinese. We had Chinese Nungs. They were also against the Vietnamese anyway so they were kind of mercenaries, basically. We paid them, we took care of them, we outfitted them, everything. There were [teams of] twelve guys - each one had two medics, two demolition experts, two heavy weapons [guys], two psychological operation guys, so on, that would take a group of these people and train them. Then we'd build a camp and have put up a kind of barrier so the VC (Viet Cong) would have some place to shoot at instead of being extremely mobile. But, of course, in [the] jungle you gotta have something. And we'd protect the village, so to speak, that they had there. But, anyway, I can talk about that forever and I never do.

(RMM): Wait a minute, let's just go back. Who was the fellow who went on, Carey?

(AH): Laurence Carey. He was head of surgery at Ohio State until, oh, about ten-fifteen years ago. I might be getting that confused with the guy who announces (Harry Caray), I don't know. But I'm pretty sure it was Larry Carey. Anyway, there were a lot of different navy guys that got put on land so we took care of marines. But I went into general surgery at Michigan. During my general surgery career, which was four years, I kind of kept in contact with the thoracic surgery department, which was doing heart surgery and so on, and I was learning how to do vascular surgery in the general surgery [program]. They were very strong in vascular surgery, the general surgery program. So we did all the ruptured aneurysms, all the carotids (carotid artery surgery), leg surgery, bypasses, and so on. I got that experience and then I applied to the department of thoracic surgery to go into their program and they

accepted me. It was funny though, they only accepted four residents a year and it's always….

END OF TAPE 1 SIDE A

START OF TAPE 2 SIDE B

(RMM): Ok.

(AH): This head of the department (thoracic surgery department at the University of Michigan), Herb Sloan (Herbert Sloan, MD), said that he interviewed me and I mentioned to him [that] I did this surgery on tricuspid atresia and he was pretty amazed. He said, "You mean to say you could have been famous." There was another guy by the name of Marvin Kirsh (Marvin M. Kirsh, MD) who was a fabulous teacher of students and residents. He was the best I've ever seen at the treatment of thoracic surgery conditions. He had a photographic memory and he could tell you, if you were discussing something about any condition, and he'd tell you, "Go to the library and get such and such a journal, page 158, there's an article in there you need to read right away". You'd go there and sure enough there it would be. The guy was amazing. The residents (residents training to be surgeons) loved him because he would get us into the operating room and, if he thought we had good hands, he'd let us do the surgery. He'd be the first assistant and instruct as you go. A lot of the other guys (surgical faculty) felt that if you could watch them you'd learn how to do it - not Marvin. Marvin knew people needed to actually do things in order to learn how difficult it may be or how easy it may be depending on what it was. And right at that time there was evolution in coronary bypass surgery and that was just the beginnings. As a matter of fact, Michigan was very slow on picking up the ball for coronary bypass surgery at the time because they weren't sure it'd really work. They didn't want to rush into an operation that might not work. There were all kinds of articles out about how you could open a patient's chest and close it and they'd feel better. Without doing anything [to the heart]. Things like that. So there was a lot of questioning

about whether or not coronary bypass surgery really was helping people with blockages in their coronary arteries. Later it proved to be absolutely necessary. You gotta get blood-flow to the heart somehow. At that time, it was the early stages, there was no such thing as stenting. We were really basically learning, even up to the point of coming up here to Marquette, about how to do the operation. Should we cool the body to 28 degrees (Celsius) and then fibrillate the heart or should we have a beating heart, cool it to 32 degrees or should we drop it to 20 degrees. You know, all these various things. Should we clamp the aorta, should we side clamp the aorta? It was still in transition when I was coming to Marquette but I was fortunate enough to get by [get on] with a guy named Otto Gago (Otto Gago, MD). Otto, I think he's Venezuelan, was (in) private practice but at [had a] university appointment and he worked out of St. Joe's (St. Joseph's) Hospital in Ann Arbor. I spent quite a bit of time with Otto. He was a perfectionist. He was a great technician. When he sewed in a vein in the coronary artery, he would put like twenty sutures in separately. And he'd have them all around and when he finally had six or seven sutures in place he'd slide the vein down on the opening on the artery and then he'd tie each one individually. Of course, subsequently to that, we just learned running sutures would be fine. Also, the suture material at the time was very crude. The modern sutures, the so called Prolene came out about, I'd say, 1971 or 2. A lot of people didn't know if it'd break down or hold the vessels but it proved to be the suture - I mean, they can make it really fine, has a little bit of stretch to it [and] you can tie it well. And the suture, as long as you tied it properly with seven knots, it would never slip and it really made clean **anastamoses**. That really helped to use them. But I was a fairly strong believer in Prolene because when I was a surgeon, my final years as a senior resident, I was given a chance to use Prolene. There were these detail guys (industry representatives - sales people) that would come in and they'd say "you gotta try these sutures." We used to use tethdeb and when we'd sew grafts onto the aorta from big ruptured aortic aneurisms they would leak like crazy. And we'd be putting pressure down there and giving all sorts of blood and plasma and blood substitutes and platelets and trying to reverse the heparin and [to] prevent bleeding out because the tethdeb was very course and left holes in the very friable aorta ("catastrophic aorta"), which a lot of

patients had. When Prolene [sutures] came out, I used to use 3-0 Prolene, which was fairly heavy and I'd suture that in on [with] a running suture and it wouldn't leak. After doing a couple of those I said, "this is the suture to use". When I started doing coronary bypass surgery I didn't have any problem going to Prolene. I used Prolene right away. That was a great innovation as far as **anastamoses** go - no matter what they are, whether you use them for artery or vein or whatever. The advancement in suture material: we went from silk, only silk, to various materials like Declan, braided Declan, and that kind of stuff, and also our grafts became very advanced. We found out that you had to put a graft in that has a certain amount of knitted graft so that blood could get into it and coagulate. So that blood would get into it, like a smooth surface on the inside of the graft, so it would last for a long time. We found out if we put in these real stiff grafts, you couldn't do this and they'd develop clots that would break off and plug the artery. So we used these knitted grafts and we'd accept a certain amount of bleeding through these grafts in order to set that up. So, that was part of the learning as far as the aortic surgery went. When I got with Otto Gago, he used to let me do bypasses so I got fairly efficient at doing bypasses. I didn't really learn how to do bypass surgery at the university, I learned it from Otto Gago and from Marvin Kirsh when he was at the VA Hospital (Veterans Affairs Hospital). He had the best cardiac program in the country for a VA hospital. So he would let us do bypass surgery on these old vets and he would be right there the whole time and he was just a fabulous teacher. Otto was not as good a teacher but he let you do things and he would teach you well during operations. But Marvin knew the post operative care and how to take care of them and take care of problems. So between the two of them, I think I got a very good training program and I decided that I really didn't want to be in pediatric surgery because I had gotten into (a) pediatric surgery rotation and I couldn't deal with kids dying. I had a real hard time with that. I'd be up all night long taking care of some little kid that had a **Blalock** procedure (Blalock-Taussig procedure) two or three years before and now I had done a corrected procedure and things didn't go well and the child was dying and the families were there. I just couldn't deal with that, it was very difficult for me to go out and talk to these families. To go out and tell them that their child, their three

year old child, was not doing well, [had developed] renal shut down, wasn't going to get off the ventilator and all this various stuff. Subsequent to that, pediatric cardiac surgery really improved significantly. They learned how to preserve brain function much better with membrane oxygenators and all kinds of stuff. The actual corrective surgery [improved]. But at that time, I just couldn't see operating on kids and going through that emotional stress of families. Whereas, with adults, there was much more of a kind of acceptance to the situation. If you operate on an 80 year old man and he has a ruptured aneurysm and doesn't do well, you go out and tell his family that his kidneys shut down and that he's probably not going to live or [may] need dialysis, or whatever, it's tough there too. [But] at least it's not dealing with a little kid, which is so much more emotional.

(RMM): A person who has led their life.

(AH): We all accept that a person is dead after a certain number of years, we recognize it. I decided at that time to do cardiac surgery. I didn't really like research. I liked taking care of patients. I liked talking to patients [and] I liked talking to their families. I didn't really think that I had an original thought. I was kind of the guy who was fairly practical in how I dealt with things. So I thought, "well, I'll go into private practice". At the time, there were positions open in places I just didn't want to go to practice. I originally wanted to go back to Vancouver and practice and there really was no place up there for me. I went up there and they really didn't have a place for me. They didn't want another cardiac surgeon and they told me if I come back I need to be a fellow and that might be two or three years before I'm allowed to do my own patients. I thought "two or three years, not too bad". Then I talked to this other fellow and this fellow said he's been there five years and he didn't have any privileges at various hospitals. So I said "well, this isn't working. I want to have a good practice". So my wife and I decided we were going to travel all over North America and find a place to live and then we'd see if I could do heart surgery. If I couldn't do heart surgery, well, I'd do vascular surgery or whatever, because we decided the quality of life was just as important as what we actually did.

And my wife was getting a PhD for kids that have disabilities and she was a teacher and she's taught at the hospital school and taken care of kids that were sick. I forget the terminology of the word. Anyway, she and I decided that we were going to travel around. I had also been given a Coller tour (Coller Clinical Tour) for a period of time where I was able to go to major centers around the country under the auspices of the Coller Foundation of the University of Michigan (Frederick A. Coller Surgical Society). I went to [the] Mayo Clinic, watching them operate, spending time in there, finding out how they get things [done]. I went out east. I went out west. I went everywhere on the Coller Tour. Then I came back. We bought a motor home and decided we are going to find a place. One of the places we stopped was Marquette, Michigan because we came up from Ann Arbor so we would drive north and work our way over to Minneapolis and see what they have at the University of Minnesota there and places like Duluth. We didn't really know Marquette too well and at that time the general surgeons had gotten together in Marquette. One of them was Matt Bennett (Matthew Cole Bennett, MD) and Tom Mudge (Thomas J. Mudge, MD) and that group. They had an idea that maybe it was time for this hospital to expand its surgical prowess. "Why don't we get a vascular surgeon?" So they had an advertisement, Marquette General [Hospital] looking for a vascular surgeon. I thought "Well, I'll stop off in Marquette" and Jim Keplinger (James Keplinger, MD) (I don't know if you met Jim but in those days Jim was in constant motion, you couldn't stop the guy) took me over to Matt Bennett's house at that time. (I came up with an earlier visit before we had the motor home. I had heard about it [Marquette]). I came up three months before [and] there was still snow on the ground, a lot of snow, and that impressed me because I'm a skier and I like snow.

(RMM): This was what year now?

(AH): This was 1974, I had gone through general surgery and thoracic surgery and then I had [had] my army thing so I went right over to Matt Bennett's house and there was Tom Mudge and Matt and Keplinger and they had moose meat. I thought, "Why, this is just the coolest thing. Moose meat and now it's snowing out, this is pretty

cool". Mary and I stopped here when we had the motor home and Keplinger, (it was the old hospital, the old St. Luke's hospital, little, tiny operating room down there) and Keplinger took me down and he had a pulmonary case to do (and he used to do almost anything if he could). He wanted me along for the session and asked me if I wanted to help and I did. So I helped him through it and I thought, you know, "Pretty primitive place". Their ICU was four beds up in the St. Luke's building on the top floor (third floor) - four beds in two rooms. That was their ICU (intensive care unit). They didn't really take ....; there wasn't a lot of invasive stuff on the patients either. A couple of patients on ventilators, that was about it. I recognized that it was a fairly primitive place and I checked the lab and the lab was really primitive. The guys who were the pathologists really weren't interested in doing much more than looking at stuff and a lot of times they didn't know what they were looking at to be honest with you. So, I thought, "Well, it was fun to be here but gotta move on". [We] left here, went out west, had a couple of offers out there on our way out west. I noticed, "God, my wedding ring is gone". I said, "Mary, did you take my wedding ring?". She said "No". I said, "I know what I did, I took it off when I did surgery with Keplinger back in Marquette and I bet you it fell on the floor or something". I never got it back on because, you know, I was in an unfamiliar situation. So I wrote a letter to the hospital, I told them my address was where I was going to be in a month, my parent's home in Vancouver, which we planned to go to. I gave them my address, I said, "I lost my wedding ring. It said *Mary L. 1968,* when we got married. If anybody finds it, I'd really appreciate it that you let me know". I gave them a phone number, but of course we didn't have cell phones or anything like that in those days. So, anyway, I get to Vancouver, there's a package there, my wedding ring. Those people found my wedding ring, they knew it was mine, and all they needed was some contact info and they sent it to me. I was impressed. Mary and I kept talking about it, that Marquette place is really a nice place, so we decided to come back. It just happened to be summer and we were out looking and we went out to Presque Isle and looked around and this is, the word 'tits' we used to use in those days, [a] great place. So, I went back to the hospital, scrubbed up into a few more cases with Keplinger and those guys and I went and talked to Bob Neldberg (Robert C. Neldberg, CEO of Marquette General

Hospital then). I told him what I can do. And I said, "You don't have anything like it here". And he said, "Well, we got this guy named Eric Lincke (Eric T. Lincke, MD, a Marquette surgeon) and he's coming back. He's down at Winston-Salem and he's going to come back and he's going to do thoracic surgery." I said, "Well, that's fantastic, there's a guy I could have as a partner". Well, I said, "You know, he's probably going to be trained in vascular surgery too. That's what you need here at this hospital. You need a vascular surgeon. You need someone to do arterial grafts, which you don't [have]". He didn't have any of that stuff. Bob was very interested and he told me, "You know, if you come here we'll do everything we can to make sure you get a program going". I said, "Well, I'll get a vascular surgery going and, if I can, I'll work on getting a heart surgery program going. Of course there were no cardiologists. There was none of that stuff, so I said, "Well, you know what, I tell you what, if I'm going to come here I'm going to start a heart program as well. I'm going to start right from day 1, and we'll have heart surgery ready in a couple of years". And he said, "Well, [Do you] think we can do it?". I said, "Well, if you got the money, we can do it". That was it. I went and told Matt and Tom and said, "Will you guys take me into your practice for a period of time, until I get things going?". They said, "Yes, definitely". So, I started here. Mary and I found a little place out in Stonegate and we had no money, nothing. We were broke, sold our motor home. That was all we had. And we went down to [the] Union National Bank and borrowed some money to put a down payment on our house. There was a guy there, and just based on the fact that I was a doctor, he gave me money. I didn't have anything at the time to back it up. I got a little place out at Stonegate, [and] started work at the hospital. First thing was I started work on the ICU and started working on getting it together so I could take care of a few vascular patients and after [that] I started working in radiology. There was no one to do **arteriograms**, and John Pillote (John F. Pillote, Marquette radiologist) was the only radiologist at that time that was willing to find out. So we used to do what we called translumbar aortograms, and we take a needle that is that long, which is what, foot and a half? And we'd stick it into the back of the patient, into the aorta, then we would hand inject radio(logic) contrast material into the aorta and we'd have these x-ray things that would be only about

that long and we'd need to go all way down to the feet. So, we didn't even have a changer. We had some poor guy running along and putting these things underneath the patients and then we'd take these things (X-Rays). He got a table later on where it'd actually do it sequentially for us. So, we did arteriograms and I was able to do arteriograms on patients that had peripheral vascular occlusive **disease** where they were having severe pain in their legs, like a black toe or something, that sort of thing. I'd find where the blockages were and then I'd do bypass surgery. I'd do either a femoral bypass on them (and frequently these Finlanders would have disease everywhere) so I got to an aortobifemoral bypass and then the femoral-popliteal bypass and sometimes bypasses to their toes, their feet, to their dorsalis pedis as opposed to the femoral (?). I had to teach all the nursing staff how to take care of [these] patients. I had to help in the operating room and teach them how to get the stuff [that I needed]. I had a lot of resistance in the operating room to get the equipment that I wanted and every time I had some resistance I'd go up to Bob Neldberg and I'd say "That woman down there is giving me this much trouble and this much trouble - either she goes or I go". So she'd go and they'd put someone else in there. I mean, it had to be that way. It wasn't she goes, [because] usually they'd just transfer her somewhere else. Somebody else would be responsible. I started doing vascular surgery and I had to have a good ICU to take care of really sick patients. I was fortunate enough to have a lot of enthusiasm from nurses and such for what I was doing. So, I had these really great people just show up saying I want to work; I want to do this stuff. I had a nurse there, Bonnie Wanska, who was head of the ICU for years. She was just the best nurse on the face of the earth. She set things up. Of course, they had never did any of the things that I had needed to do. Like, if I needed to put a central-venous line in. They'd never seen it done before, so I'd have to educate them on what I was doing, where the catheter was going, what it's used for, and I used to monitor the central venus pressure by just using a water manometer. I'd have these nurses going by every hour and check and see what the central venous pressure was and I could see if the patient was dehydrated and needed more fluids based on the central venous pressure. So, I'd say, I could put in a sub-clavian [intravenous catheter] or something in the neck and then I'd hook this up to a

cvp [central venous pressure intravenous line] and give him fluids through that and they'd also be doing a cvp (central venous pressure) so all the nurses had to learn how to do cvps and all that. And then there was nobody in the hospital that did (inserted) pacemakers so I did pacemakers. I'd bring in all these old fluoroscopy units and put on an apron and slip pacemakers into patients right in the ICU. [I would] get them paced and Bonnie [Wanska] would always be there helping. And then we'd talk about the pacemaker and how it worked, how the generator worked, and all these various things, and that was a training program in itself. So, I would go out and give these lectures to all these nurses and somebody filmed them. Somebody told me not too long ago, "You know, I saw a picture of you when you were a young man giving a lecture on how to do a pacemaker". You know, it was an education program. I worked fairly hard at just trying to get things out in the ward and [teaching] how to take care of vascular diseases and so forth and so on. It was a real change. Also at the same time, I recognized that we needed other specialists. I needed someone who could take care of renal disease and, at that time, they didn't have any dialysis or anything like that. Patients were having ruptured aneurysms and so on and frequently [would] go into kidney failure and so you had to dialyze them for a period of time to get them through. So, I told Bob (Neldberg) about the various physicians that we needed and we were lucky to get [nephrologists, kidney doctors] Marc Himes (Jon Marc Himes, MD), Buffington (Gary Buffington, MD) and Napier (Jerold Napier, MD) and there were other people. And Mazzuchi (Daniel Mazzuchi, MD), of course, was the specialist in renal disease but he wasn't really interested, in those days, in dialysis. He was a great educator but he wasn't into the kind of practical stuff. We needed a good lab and we were lucky to get a little change in the pathology department and John Weiss (John Weiss, MD, pathologist) showed up. And he was like the sun suddenly rising in the east because the guy really just had a tremendous IQ and he was great on blood banking and we needed frozen blood. We needed all kinds of stuff.

(RMM): And none of this existed?

(AH): No, none of it. John took it all over; he got it all going. He was fabulous, still is, he was a very smart guy. Anyway, he used to do most of the autopsies, like if we had a patient die. I used to go up and the two of us would work on it and see why the patient died and all that kind of stuff and those were things that needed to be done. We'd have a mortality and morbidity conference and we'd sit down and take a patient's chart and talk about a patient and why a patient might not have done well. The hospital was really small and the medical staff was very interested and you knew who could help you and who couldn't help. Guys like John were very interested in education and every Friday we'd have a conference and somebody would get up and talk about their specialty and what they could do and it was [these were] good days. We had a very active recruitment program. When we'd bring in a new doctor everybody would go and we'd have a party. [And we would] get around the guy and find out just exactly what he could do and, if he was really good, we'd do everything we could possibly do to get them to come [to Marquette]. That's how Scholnik (Aaron P. Scholnik, MD, a hematology-oncology specialist) [was recruited]. Scholnik showed up here and that's how that program got going (the oncology program) [which] just changed things. And same thing happened in the X-Ray department, but it was always a problem. We were able to get vascular angiography…

END OF TAPE 1 SIDE B

START OF TAPE 2 SIDE A

(AH): I'm not surprised.

(RMM): Wait a minute. Tape number 2, Hunter interview.

(AH): You probably don't do two, more than one tape.

(RMM): Oh no, it's fine.

(AH): So John (John Pillote, MD) learned how to do vascular angiography. He went to the centers where they were doing it, [learned] how to put catheters in arteries and no longer had to stick [needles in the aorta to do] the translumbar aortigrams [which] put a risk to the patients. A lot of those patients would bleed quite a bit from the stick in the aorta, but that's the way it went. They never died from it that I know of. John learned how to do vascular angiography. He got a good angiography suite and he started bringing guys [to Marquette] who were trained in vascular angiography, both neuroangiography and peripheral. But prior to getting those guys in there, if we wanted to look at a carotid artery, I'd stick a needle right there in the neck and hand inject [the dye]. That's how we did it. I can remember I'd be in one room doing it and Adam Brish (Adam Brish, MD, a neurosurgeon) would be coming in and saying he needs the room. We were doing the same thing, so he and I were similar. He'd be looking at all the things of course, brain tumors etc. He'd stick [a needle in] the carotid artery and he'd hand inject [the dye]; that's how he did it for years. Of course, I was interested in patients that might need a carotid endarterectomy for symptomatic cerebral vascular disease. So anyway, we finally got a neuro-vascular angiography program going and Dan (note- I am unsure who this is) was one of the guys that was here. All of these various people [were] working on (with) John Pillote. He was not a good leader in that sense. He would get these good guys and then for some reason they'd get totally pissed off and then they would leave. So, it was difficult to get consistent good radiology. I think it's still a problem at the hospital, incidentally. I'm not entirely certain other than it's been an ongoing problem. We were able to get decent angiography going and I was doing a lot vascular surgery and I was doing a lot of lung surgeries and I did all the bronchoscopies. There was no med-chest guys (pulmonary specialists) that did [bronchoscopies]. I did all the esophagoscopies. I did esophageal surgery; I did my next-door neighbor. He's the only survivor of carcinoma of the esophagus that I know. He'd have to be my next door neighbor, I operated on him and cut out his entire esophagus, brought his stomach up into the neck and all that stuff. A lot of pulmonary surgery, spent a lot of time trying to get lung nodules and take biopsies on them and I was using fluoroscopy

a lot. So, in retrospect, I should have been using protection of my neck because I later developed papillary carcinoma of the thyroid from it, which is a high risk in patients and doctors that have had x-ray exposures. In those days I used to go over to Bell Hospital (Francis A. Bell Memorial Hospital located in Ishpeming, Michigan) and they had a primitive fluoroscopy unit and I couldn't, I tried to put catheters in patients, but it wouldn't work. We still didn't have a cardiologist but we were recruiting. I told Bob we have to build a cath lab (cardiac catheterization laboratory) and it's like "Build it and they will come". And so, I researched it all and I wanted the best equipment. The best equipment at the time all happened to be Siemens (Siemens AG, Munich, Germany) equipment so I actually ordered all of the stuff and built a cath-lab on the end of St. Luke's building (on W. College Avenue). They built this little bubble down there so I built the cath lab. [This is] Not where you see the bubble now, it was at the other end. It was just, you couldn't even identify it now, but it was an extra room at the far end off of St. Luke's building. I recruited a guy by the name of George Patrick (George Patrick, MD, a cardiologist). He came in and (George was just a really great guy, but pretty flighty) he needed support. Fortunately, Tom LeGalley (Thomas D. LeGalley, MD, a cardiologist) showed up, he wanted to come. His wife was cath-lab trained and so she helped him get the cath-lab going and actually get functioning. So Tom and George were the first two cardiologists and they started doing caths (cardiac catheterizations). And meanwhile, I hadn't done a heart surgery since I left my residency but I was going down to Appleton [Wisconsin] where my friend was at - and he was in practice. He did heart surgery every day, so I would go down and spend a week with him every once in a while and operate with him. So it worked out pretty well. Actually, the first heart case that I did in 1978 at Marquette General, I had the entire Appleton team here (their pump technicians, everybody [including] nurses). And I only did one bypass and it was a guy from Munising. And he got the police to bring him over in the middle of a snow storm so he could make it in time to have his heart surgery. And he was a young man, about 38, and he had high grade descending left anterior coronary lesion, and he needed just a single bypass. We didn't use arteries at the time, we used veins. We took a vein out of the leg and hooked it into the aorta and hooked it into

the coronary. And he got here and of course we did the surgery and he did fine. Matter of fact, my son, Ben, met this guy. They work at Wal-Mart. My son works at Wal-Mart and he (the patient) works at Wal-Mart and he said, "Is your dad Dr. Hunter?" and he said "Yeah". He said, "He did heart surgery on me back in 1978." And he told him this story. Anyway, since then, the guy has had more problems, stents and all kinds of that stuff done, but he's still alive. We got the heart surgery program going, did that first heart surgery case and it went fine. We were kind of plugging along, doing about 90-100 heart cases a year. But I was so busy, I was doing hearts. I was doing aortas and I was getting up in the middle of the night for ruptured aortas. And [I] was going out and talking to doctors out in the communities to tell them what to look for so we could reduce the number of ruptured aneurysms. And I started telling [them], "You have to start looking for aneurysms in these people because there are so many of them". Ultimately, it's pretty rare for a patient to come in with a ruptured aneurysm because it (the aneurysm) gets picked up now with ultrasound and so on (before it ruptures).

(RMM): So this was like, emergency surgery?

(AH): Ruptured aneurysm, yeah. When these aneurysms bust the bleed out into the abdomen. Once that's happened it's about 80% mortality.

(RMM): So this was a problem all through the UP?

(AH): Oh yeah, oh yes. Somebody would present to the emergency room up in Houghton, in shock, with a big bloated abdomen and they'd say, "Ruptured aneurysm", and they'd call me. And they'd load him in an ambulance and put blood into him and send him down (to Marquette). He'd have a blood pressure of about 60 and, you know, a big bloated abdomen, in shock. We'd rush him to the operating room and do a aneurysmectomy and try and save his life.

(RMM): They would have to start with cleaning him up?

(AH): Well, you wouldn't have time, you have to take him to the operating room immediately and then deal with the care afterwards. We'd frequently go into (operate on) the older patients. They'd frequently go into kidney failure, renal failure, so we needed dialysis of some sort and that's where we needed good dialysis. Of course, in those days one of things was peritoneal dialysis where [but] if you had a big ruptured aneurism, the abdomen is full of clotted blood and so on. It's pretty hard to do peritoneal dialysis. Actually, early on, we got a dialysis program running. Marc Himes was one of the first guys (nephrologists, kidney doctors) here and I'd put a catheter in the guy's radial artery and the guy (Dr. Himes) would dialyze him. So anyway, that's a program in itself; the renal dialysis program was so important. And those guys have been doing so much since then. Fortunately, Marc was in Minnesota (Hennepin County Medical Center) which was a big program for renal disease [and he] trained with all these guys that were doing dialysis. I'm getting off track. We did get a heart surgery program going, we were doing about a hundred [cases per year], and then we started bringing in more cardiologists (Tom LeGalley was kind of the guy). We've had cardiologists come and go, but slowly they've gotten a higher number. I don't know how many they have now. I think there is even a pediatric cardiologist there now. So the program has grown. As it happens in medicine, there's change. And the change was the introduction of stenting. I was very interested in stenting and peripheral vascular disease as well and I went out to Arizona and got [together] with Ted Diethrich (Edward B. Diethrich, MD, Phoenix, AZ) out there. He was into using lasers on breaking down atherosclerotic lesions. I spent some time trying to get a laser program here and, meanwhile, the cardiologists were in constant change and flux and they started thinking that they could do stenting and that was a big thing. It evolved over the years into where cardiac surgery became less and less important because stenting became more and more important. Patients weren't quite as sick. (If you get a catheter stuck in your groin and next thing you know, the pain has gone away. Then you have a catheter (stent) in you. The stents evolved into these modern stents that last a long time, and with Plavix (clopidogrel) or aspirin, patients do well. So the heart surgery, coronary bypass surgery, has gone down significantly for the

surgeons here, but it's going to be like that. You get patients who have multiple stents; you can't stent them anymore. You have to do something, so they get surgery (coronary artery bypass surgery). Also, what evolved was introduction of using the internal mammary artery, which is an artery that comes off of the arm artery. And it's one of the first arteries that comes off the subclavian artery. And it runs down on each side of the sternum. So, we found out that that could be utilized for bypasses so we started putting that left internal mammary artery into the left anterior descending coronary artery, which is a major artery in the heart. Those bypasses tend be so much better than vein bypasses. Vein bypasses are really susceptible to developing atherosclerosis and they have a [relatively high] clotting rate whereas internal mammaries (internal mammary artery bypasses) tend to do extremely well. A lot of these patients [that] we used to do four or five bypasses [on] are still surviving on a single internal mammary artery that is going to the left anterior descending and vascularizing the heart and the rest of the veins have clotted, you know, and the patients are doing well. So it's even gotten to the point that some people say, "Heck, let's just do a left anterior [descending] bypass and that's all he needs; we don't have to bypass all these other arteries". Through the collaterization of the heart, blood will get to the other vessels. But, if the guys (the cardiologists) still have patients that have three or four vessels occluded, they'll put in three or four stents. Now, in some patients, they get stents and bypass, or bypass alone, or stents alone. I mean, that's their choices. The cardiac surgery program has evolved in the sense of doing all the various kinds of valve replacements or valve repairs [such as] the mitral valve, replace it, put in a ball valve. Then we developed all these various kind of valves including pig (porcine) valves. Subsequent to that, valves are made out of pericardium and all these various xenograft type valves too. And, also, artificial valves themselves have evolved into pretty good valves. [Valve] Replacement in the aortic position or in the mitral position can be done. So much better now than it was because of the access, understanding the clotting, and the technologically better valves. So the patients, all these patients, who need valves or valve surgery are still in line for the cardiac surgery program, so they still do that. Plus, what they've done is they've tried to take care of patients who have atrial fibrillation, which puts

patients at high incidence of throwing clots because if your atrium is not contracting it is just sitting there, wiggling like a bag of worms. They (patients with atrial fibrillation) tend to throw clots into the atrium. Then these clots can break off and go to other arteries of the body; they can go into the brain and cause stroke, or to the kidneys and cause obstruction of the [arteries to the] kidneys. The patients there (with atrial fibrillation) are put on blood thinners. There's always a risk from blood thinners (warfarin). Those patients develop bleeding problems as well. It evolved into the idea of, "Heck, maybe we should try to do some kind of surgical procedure to correct atrial fibrillation", and they developed an operation called the Maze Procedure. This involves all these cuts made in the heart, cutting all the accessory [conduction] pathways in the atrium and around the pulmonary veins in the back of the heart and then cardioverting and getting a good atrial contraction in it (the heart) and putting patients back into normal rhythm. Of course, the cardiologists found a way of doing that through catheters and they use radiofrequency [ablation] or freezing technique (cryoablation). And so on, and they can do the same thing through catheters now. Mark Cowan (Mark Cowan, MD, cardiologist) came here. He was a big time cardiac physiologist (electrophysiologist). He would trace out where the abnormal pathways are and so on. And [ablate] pathways and so on. There's actually a lot of these various conditions he's helped with. Of course, surgeons still think they can tear right through fibrillation by doing their surgical procedure but it's ended up that the best thing they can do is if the cardiologist fails, they can go in and do their thing (the Maze procedure), see if that helps. So that's helped the heart surgery program too. There were basically two [cardiac surgeons] and one of them was young and vigorous and balding, and he's a really good surgeon. The other is Curt Marder (Curtis C. Marder, MD, cardiac surgeon) [who has] been here forever. I recruited Curt. He's really a great guy, just different. Everybody thinks Curt is out of it, [but] he's extremely brilliant. I used to use his brain all the time. We'd go around and do rounds together and I'd say, "What are we going to do here?" and he'd come up with three different things to do and then I'd pick one. We took good care of patients and he's just a good guy. I really like Curt. He's technically very, very good and so he's not got into a lot of problems with doing heart surgery here and he's worked out very

well with Doug Baldwin (Douglas R. Baldwin, MD, cardiac surgeon). But he's (Curt Marder) the old guy. He's going to be going and they'll bring in a new young buck and we'll have all kinds of different ideas. Of course, what's happening in [with] change, is I'm really a dinosaur now in everything. I used to do lung surgery, put a great big incision in the chest, go in and do the lung surgery. And now they do it with scopes and so on and everybody knows how to do it. It's not acceptable to make great big incisions anymore. It's the same thing with left anterior descending [bypass surgery], they can dissect that all down with a little catheter in here and go through a scope and dissect the whole thing and sew down the left anterior descending, and send them back to work, that kind of thing.

(RMM): Would this be an office procedure?

(AH): No, it's a hospital [procedure], you still need to do it in an operating room. It's so much different, everything is different. If I went back to do heart surgery now, I'd have to go take a residency. I would. I'm just out of it. But I have history and this is what you are here for. Yeah, I helped. All the years that I was there I complained about when am I going to have my new ICU? When I am I going to have my new intensive care unit? So he (the CEO of Marquette General Hospital) finally let me go up to Minnesota and order all of these wall units and everything and we developed an area down in St. Luke's (Marquette General) where we had a sizeable ICU. We never had the fancy one until I left and then they built it. We took care of patients there, I used to sleep there at night. I went through a few colleagues, guys that I brought in that I thought would work into the program, and [when they] didn't, I'd have to go through the gnashing of teeth to tell people I didn't think [they] were good enough. But I had a guy here for many years who decided he wanted to go east, Tom Militano (Thomas Militano, MD, cardiac surgeon). He worked out well. We worked together for eight or nine years before he left. Curt was here right after Militano started. So we had three guys and we were very active. I told them, "Guys, we need to vascular surgery, you got to do lung surgery", because I wanted to keep that program, so we had a nice little program going. We'd get up in the morning and do rounds together

and see each other's patients. And [we] knew what the doctors were thinking and tried to give good care to the patients that we took care of. At the same time, we developed a physician's assistant program (PA). I had the first physician's assistant in Marquette, Brian Weatherdon (Brian R. Weatherdon, PA-C). Connie (Constance G. Arnold, MD, plastic surgeon), she was working in the general surgery office doing plastic surgery. Blocking on her name right now and I know her well. [She and] I decided we needed a physician's assistant between the two of us. We didn't know if we would give enough work to a physician's assistant so we decided to share Brian. It soon became obvious that I needed Brian all the time, so I hired Brian and he was the first physician's assistant and we eventually ended up with four of them.
They were all really good and we gave excellent patient care because when we were in the operating room, they were out taking care of the patients, coming out, coming in and telling us what the problem was. They became quite good at helping patients and getting us talking to patients. We had a fairly strong program going when I left. It kind of [happened], as it many times happens, [that] the cardiac surgeons that were here didn't get along so they spread out. The program kind of had some problems for a while.

(RMM): What year did you retire then?

(AH): I retired early, I was like fifty five, 1996. I guess I could tell the reason, I don't know if I would want it to be known, but, I went to - a couple years before - I went to have breakfast out at a garden [The Garden Room] and when [after] I got lunch or brunch or something, I got a real bad case of salmonelosis. Two weeks after that I developed the worst arthritis; I could hardly walk. It got into my feet and my knees, and then I started going blind in my right eye. It was foggy. Actually, my friend, Jack Kublin (John G. Kublin, MD, ophthalmologist), made the diagnosis, Reiter's Syndrome [now referred to as reactive arthritis]. [This is] A condition that people who have a genetic defect, the HLA-B27 gene, are susceptible to, and you can get from it non-specific arthritis like I did. [It can follow] a venereal disease or infections from salmonellosis. Any kind of bacterial infection can incite this thing. So, I developed

this arthritis and I started getting blind in my eye so I couldn't do heart surgery. At the time, we had this cardiac surgeon here who I thought was going to be really good; turned out to be he's a total asshole, but, that's between you and I. He's actually, technically, a very good surgeon; he just doesn't know how to get along with people. He was in the operating room with me and I was having trouble seeing, my depth perception was going. So I kind of told him "Would you mind doing the bypass?" He refused to do it. So I struggled through it, the patient did fine.

(RMM): This is while the patient, I mean, in the midst of it?

(AH): Yeah. My eyes started getting bad right in the operating room. I got through the operation, the patient did fine, the bypass site was open. I was really worried about the patient. I went home and told my wife, "We can't tell anybody this, but I'm going to have to quit." Subsequent to that, I had exacerbations of this problem and I'd go in to see Kublin and he had me on eye drops. I still have problems with the eye, but he would inject steroids into my eye and that kind of stuff. I decided I was going to retire and quit. I had people said why? I said, "I'm burned out". I didn't want to have a medical reason. I'm not that kind of a guy. I'm a macho man. I like to be a macho man. So no one really knew that the main reason for my retirement was my medical condition. They just thought, "Well, he made a lot of money and wants to quit". That's kind of how I wanted it.

(RMM): You don't want this on the tape?

(AH): I don't know, this is between you and I, it's just to give you the reason. I wanted to practice for longer; I was here for nineteen years and I was really happy with the program.

(RMM): Now you wanted to fish.

(AH): Now I wanted to fish. It really helped my arthritis; I got well with that. I had ten years where I didn't have one attack of this problem. As soon as I quit I was fine. I went back a couple of times as a consultant, because they were having problems. I thought if I went back, maybe I could get the guys to work together. I worked through the executive office and they had meetings with all these guys and I was trying pull things together.

(RMM): But they still didn't know the real reason?

(AH): None of the cardiologists knew. They all just thought I made millions and decided to quit. Subsequent to that I went through these consultant things and I did rounds with the guys and tried to get them working together, but it just never really worked out. I got frustrated by trying to get them working together.

(RMM): Can you get into how they solved the problem?

(AH): They split. What happened was, I told Bill (at the time Bill Nemacheck was there as CEO of Marquette General Hospital), and I said, "Bill, I'm never going to get these guys to work together. But I'm going to go out and find you a doctor who will keep the program alive." I went up to Minneapolis and I found Doug Baldwin, he was a resident at the time and everybody just thought this guy was gold. Everything he did was perfect. I went and watched him operate left-handed, boy that was good. He was left-handed, and Curt was right-handed so they [would] get on each side of the table and they could work like crazy. I told him all about Marquette and told him that this was the place to come, and I got him here. He came and his wife at the time wanted to do a dermatology residency. So she came here for a while and she went back and did a derm residency and he was here. He was such a good guy. He didn't get involved with any of the infighting that was going on. He just decided to leave. And he left. And before he left, I told him, "Doug, you'll always have a job here, you go back there and see the reality….".

END OF TAPE 2, SIDE A

START OF TAPE 2, SIDE B

(AH): His wife finished her derm residency and she came back and he's been here ever since and he's consolidated things and he's made it. And he's got a tremendous amount of energy. Everybody likes him.

(RMM): So he's a good people person?

(AH): Yes, he's a good people-person. He's a hard worker and his patients do well. So with that, I felt like I got the right person in. Now I can go fishing. Since that time, Curt has stayed here. He's been kind of his partner. He kind of is there; he's available. And the other cardiac surgeon went to Bell Hospital (Bell Memorial Hospital in Ishpeming, MI) and started a vascular program over there which hurt this vascular program a bit because he had a certain following - like any doctor would. And he was technically a good doctor, just not a kind of guy that would work with anyone. That's just the way it was. So, I felt he sort of destroyed the program that I had started so I felt like I needed to do something to make sure that it came back to life and was reasonable. And with Doug - I was really happy the he came back. I completely let [it] go after that. I've been just another guy walking around saying, "How are things going at the hospital?" That's about it. I don't know anything that's been going on at the hospital, really. And so it's been nice to see that. And meanwhile, the cardiologists have taken over and, more or less, are the dominant factor in the care of heart disease right now. They are able to take care of so many things. And meanwhile, the surgeons have become so much more focused or funneled down to being specialists and just doing heart surgery. I don't think Doug does a lot of peripheral vascular work, I'm not sure. The next phase, of course, is robotic surgery and doing all that stuff. I think if they ever want to really keep the program going here, they are going to need to get someone who specializes in robotic surgery.

(RMM): How would you explain that?

(AH): Well, [in] robotic surgery, the guy (the surgeon) sits in a chair and they put a scope inside the [patient's] chest, and then he (the surgeon) can do pretty well anything right from the chair, he can manipulate all the instruments, tie sutures, replace valves, do coronary bypass surgery.

(RMM): That's what I thought it was, but I didn't think it was that advanced.

(AH): Oh yeah, they do it.

(RMM): Oh, so they do it now?

(AH): Oh yeah. They have things like this. They can replace the mitral valve using robotics. The sutures that they have are like little springs. So they take the robotic fingers, really tiny (it's all in microns), inside the heart. And after they [have] removed the [native] valve and [while] putting in the new valve, the robotic hand goes down there and flips one of these spring-like sutures through the sewing ring and into the heart, and then when it releases, it goes 'tunk' and ties itself. And they go around and put in a lot of sutures and stuff. And the guys that are really good at it, they can actually tie with it and they sit in a chair and watch a screen as big as this.... a regular movie screen and it's all magnified. They are like these kids who have been sitting in front of TVs playing Nintendo games.

(RMM): They probably have been.

(AH): That's right. These guys that have been technically, since the age of three, playing in front of the TV set.

(RMM): So this is a tiny thing and it's magnified for them and all that?

(AH): Yes. And they put them on cardio-pulmonary bypass [with] a little stick in the groin, put the catheters in through the groin, and that'll be the only cut other than the small cuts of putting in the instruments. And the instrumentation that they have developed for these robotics is so, I mean, it's fabulous that they can do it. Talk about a dinosaur. So, that's the next phase. Matter of fact, I went to a conference. I've been interested in cardiac surgery, so I've kept in touch and I go to the conferences as much as I can. I went to one down in Florida where this guy did a gall bladder [surgery] on a patient in Italy [remotely] from Florida. What he did was, he sat in the chair and they had a screen. I think in Rome, in Italy, they put the things in for him, very easy, like in the abdomen. They just put in a canula and then they put the scopes right through that canula and he removed the gall bladder from [while he was in] Florida, sitting in a chair, just manipulating the instruments. [He] Took the gall bladder out and then did a colangiogram and had the x-ray right there and everyone said, "Oh, wow" and then he told them, "Pull the catheters out". They pulled the catheters out and he never saw the patient. It was sensationalizing. That's what it's all about now. It's pretty fascinating. All these things you used to see in *Star Wars* and all this kind of stuff, it comes true.

(RMM): So you were, as I was saying before we started with these interviews, I'm seeing a kind of progression even from the seventies, and you've kind of done that again with all that work.

(AH): Well I watched it happen.

(RMM): Yeah.

(AH): When I left, coronary bypass surgery was still the big thing. Stenting was becoming a big thing but it wasn't much.

(RMM): And this is when you left?

(AH): 96 (1996), yeah.

(RMM): So from the time you entered though, there was a massive difference.

(AH): There was a big change. I mean, one of the things that really, the biggest thing that made our program successful, was me hiring a guy from Ohio State by the name of Campbell, Steve Campbell. He was a technocrat. He was trained at Ohio State in doing circulation technology, he was a pump tech. He also just understands how to do everything. Steve, I interviewed him, and he came up, and he researched me to find out who I was. And I told him we are going to start a heart surgery program up here and I need someone like you. Can you get things started and help me with all the technical stuff? Because I need to know someone who can do the technical stuff. And he was reluctant to come because he thought, "This guy is crazy, trying to get things going, doesn't have a cardiologist, doesn't have anything". But, he decided to come, and between Steve and I, we got things going. I had the vision, and he got things set up. He ordered a Sarns Pump; we got that from Ann Arbor. We went over to the old hospital across town (formerly St. Mary's, then Marquette General South, which is now [the] Jacobetti Veterans Facility]. They had an operating room there and we used to sneak dogs in there from the pound, and we would hook them up for coronary bypass. And we'd get a bunch of nurses from the hospital (Marquette General North), and we'd do heart surgery on the dogs and teach the nurses what instruments were and how to go and so on. And we took them down to Appleton [Wisconsin] and got them trained down there with my friend [a cardiac surgeon]. We had a dog in the operating room in Jacobetti, which was the old hospital. And the operating room was still intact, even though we had all the stuff. Steve procured the dogs. I don't know how he got them. He went through all the stuff and the first thing we'd do was put them to sleep, then we'd intubate them, just like you would with a human. And then we would do heart surgery. Then we sacrificed the dogs. But, they would have little, teeny-tiny, arteries and I would screw around and I would take a vein out of the dog and I would do a bypass on the dog. Every once in a while, I'd do a mitral valve replacement on the dog, whatever. I had been very comfortable with

dogs. I had worked with dogs when I was a student, so I knew how to do it. So that helped me a lot. A dog's sternum is only about that wide so [while] splitting the sternum you have to be careful, otherwise you'll go into the ribs. I'd put in retractors and do the whole thing. Otherwise, the heart is very much like a human heart, [except] everything is a little smaller, and so that's how we trained these people, through the dog lab. And [we] got them ready for the big heart surgery. And you know, there were a lot of changes. What happened, I got so busy [that] I couldn't possibly do all the bronchoscopies. Fortunately, the med-chest guys (pulmonary physicians) picked it up and Hammerstrom (Carl F. Hammerstrom, MD, pulmonologist or chest physician) learned how to do a bronchoscopy. And then you know, we started recruiting guys who could do it. I brought in Steve Danek (Steven Danek, MD, pulmonary medicine) and so Steve did that stuff. So, they pretty much did all the pulmonary work-ups so I didn't have to do that anymore. When the cardiologist(s) came they took over all the pacemaker work. When they put in permanent pace-makers, I used to make an incision and make a pocket so they could put their generator in there and then they'd sew it up. And then I'd say why don't you guys just do this? I'll show you how to do it. So then I showed them how to do it so I didn't have to go in. So they took over all the pacemaker work. I used to put in huge generators underneath the skin in these poor patients. But they needed it.

(RMM): So now, are they doing pacemakers? How large are they?

(AH): The generators are about that big and it's programmable through the skin.
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(RMM): So about the size of a thumb?

(AH): Yeah, it's about that big. Maybe an inch and a half across, it's really small. You just make a little nick for the pocket. But it used to be like that, a great big thing. Cardiologists took over all the pacemaker work, [including] people who needed temporary pacemakers, they did all that. That allowed me to do the surgery and then, at the same time, the radiology department was getting good enough they did

all their angiography and John Weiss got all the laboratory stuff going so we could actually have blood banking. That we could have all that stuff plus we had good pathology. Whenever I did lung surgery prior to John coming here, I'd take a biopsy of something and I'd run out and do the frozen section myself and look under a microscope and see what it was - whether it was benign or malignant. I'd look under it, yup, it's malignant and I'd go back and do the pulmonary resection.

(RMM): Oh, you did this in the middle of the operation?

(AH): Right.

(RMM): That's why when you talk about these things, people have no idea.

(AH): Not to say anything unkind to the pathologists that were here, they were like I am. They were like dinosaurs, they could never read [lung, bronchial] brushings. I would go up in the lung, in an area of a lesion, and I'd stick a brush up there and brush it like crazy and then I'd wash out all the cells and then take those cells and put them on slides and prepare them and then look and see if there were any malignant cells. If we found malignant cells, I'd say, "OK, you got lung cancer". But if we didn't get anything out of it, because I was frequently able to get these little pincers up in there, I'd take a piece of lesion and I'd say, "That's a granaloma, we don't need to do anything other than watch it". So you know, we were able to look at those things. I was always up in the path lab (pathology lab) with the old pathologists. He would have his microscope and I'd have a scope on the side attached to it and he'd say, "I don't know what this is." I'd say, "That's a squamous cell carcinoma". I'd tell him because I was a good pathologist, I knew my pathology. Then when John Weiss came, I didn't have to do that anymore. He was far above me. He could read just a few cells on a slide and say, "You got a lung cancer", from [a] brushing. He was a pathologist and he got in other pathologists and had his own program expanding at the time. The same thing happened to microbiology. Jeff Gephart never gets the kind of accolades that he should receive for all the things he's done with doing the

infectious disease program. He was all by himself for years and years and he single-handedly developed a treatment of bacterial infections and all kinds of infections - program (infectious disease program) and identification (of pathogens). He still is very active and quite brilliant.

(RMM): Now has that program expanded or?

(AH): If anything, it's expanded a lot with HIV (HIV/AIDS epidemic).

(RMM): Oh that was all in there.

(AH): Yeah. And viral diseases. He's the expert. Anyhow, [there are] other guys who are with him, there are four of them now. But, he was by himself for years and years. He would single-handedly identify infections in the intensive care unit; what antibiotics they needed. And you have to have that in a hospital. The development of the resistance of the bacteria, things like washing hands and all that kind of stuff, I don't have to do that anymore. I had a great big lake trout in my hand just about half an hour before I came here. That's the way it is. Things got better. The hospital expanded and kept expanding and so big that it lost its early camaraderie we had with the doctors. The doctors all knew each other well. And I used to go to the tumor board every Tuesday morning and we'd go down and have breakfast and talk about the cancers (current cancer cases). Anything that I biopsied and so on, lung lesions. We would discuss the patient, how to take care of the patient, what the oncologists could do, whether they needed chemotherapy or whatever. [For] A lot of the patients, I would stick a scope right down beneath the sternum here and take nodes out from around the heart and esophagus and it'd be, like, Hodgkin's disease or something and then decide [on treatment options]. The oncologists would take them (the patients) over and we had a lot of interaction. [Aaron Scholnik], oh my god, he was a very smart guy too, he was amazing.

(RMM): So now it's sort of grown and developed.

(AH): Each one developed their own program. What happened was - there is a tremendous lot of crossover. If you draw a lot of circles, there are a lot of crossovers. And all the various components that developed are necessary for the success of each one.

(RMM): So they all still interact?

(AH): Yup. But not as closely as the way it did in the early days when there was one cardiac surgeon, one or two cardiologists and there were one or two nephrologists, one pathologist. That kind of thing. Now, it's just a whole bunch of everything. And that's the way a medical center has to be these days. All these little outlying hospitals were always improved by the fact that this Marquette medical center had such quality physicians because they were going out there and taking care of the [outlying] patients. Helping taking care of patients. Travelling all over the U.P. Driving to Sault St. Marie, and all these various places.

(RMM): So this has been commonly done over the years?

(AH): Yes, but see, I wasn't able to do that because I had such an intensive care for my patients; I wasn't able to travel much. I would go and give little lectures and that kind of thing. A lot of the guys (physicians and surgeons) had clinics where they would go out to. Orthopods (orthopedic surgeons) and, you know, oncologists would go out and see patients. Of course, they developed a program where they can talk by teleprompter and all that kind of stuff and we used that too. A cardiac surgeon, the doctor back there (at a major medical center), would talk about this patient and we'd talk to him and he'd tell us how to take care of it. But, it's been fun to watch it grow. I worked in the emergency room a little bit and I worked over at Jacobetti (the Jacobetti Veterans Facility) on Thursdays, seeing all the old guys.

(RMM): You still do?

(AH): I did. I quit this year. I developed a lot of medical problems myself in the last couple of years. I had real bad case of Clostridium difficile (C. diff.). I had back surgery and about two weeks afterward I got the worst diarrhea and I was sick, and I had contacted this very unique form of C. difficile. [It is] Found in New Brunswick where the A and B toxins are sixty times that of the former C. difficile and I got the one that was the bad one. There was only one drug that would actually knock it down; that was vancomycin. But, you had better go on vancomycin for a year and each vancomycin pill costs 250 dollars and you take four of those a day. For a year! That's expensive. Fortunately, I was able to work out a program with Kent (Kent Jenema) over at Peninsula Pharmacy at the medical center (Upper Peninsula Medical Center, Peninsula Medical Center, Pen Med). He takes IV (intravenous, liquid) vancomycin and makes it into a syrup for considerably less, but still expensive. But I took that in syrup four times a day. And it reduced the price to sixty dollars a day, total. Hundred dollars a day. It was bad but it finally just cleared, cleared up. I had neck surgery and then I had a bad case of Herpes zoster (shingles) involving my eye. So, it's a good thing I wasn't practicing anymore. Then, I just had my knee replaced in January so I'm able to walk again. I was limping like an old fart. I'll be 70 on June the twenty-first, which is very soon - two weeks. I have had a very interesting career. I would have liked to see it go longer, but the intensity of things we did back in those days and the amount of energy it took to do it, it did take a lot out of you.

(RMM): Sounds like yeah, you had a wonderful career.

(AH): It was short, but you know, fun. Getting a program was fun, it really was. When I was leaving there, we were doing close to a thousand and over a thousand cases that we've done.

(RMM): A year?

(AH): No, we were doing about three or four hundred a year.

(RMM): So you started about 90-100.

(AH): And we were doing 300-400. And I think one year we went over 500. But, now it's back down to 175 because of stenting. I don't even know what the numbers are but that's the history right there. And that's my history. I've never really gone through it. I've never discussed that from the beginning to the end before.

(RMM): Well, we'll give you a copy of the tape and then we'll give you a copy of the transcription. I'm going to get you a copy because there are a lot of technical words here that I didn't have you spell and I'll let you go through it and make some corrections and what not.

(AH): Well I tried not to use them, but I guess I used a few.

(RMM): Well you had to, there was no other way to explain it.

(AH): There is. When you're talking to a family, you never say, you know, use a technical word when you talk to them.

(RMM): He can listen to it and put it in brackets.

(AH): Leave a space behind everyone you don't know and such.

(RMM): And then, I'll have you go through it, and if there is something you don't want in it, you can do one of two things. One would be to [say] "Don't have it included", or we can lock the tape so that no one can listen to it so you can say, "After you're gone".

(AH): I don't really mind anymore. I've told people, recently I believe, because they've asked me. Why did you quit, you seem like you want to be involved. And I'd

say, “Well, to be honest with you, I had some medical problems. I had medical problems, and it was obvious to me that I couldn’t do heart surgery anymore”. And that’s usually enough for them, they don’t ask for any more details about it.

(RMM): That would be the only thing.

(AH): I don’t like people to think that I quit because I made so much money that I didn’t care anymore.

(RMM): I don’t know which would be worse.

(AH): Lately I keep watching the stock market, worrying about whether or not I’m going to be able to pay the bills; I wish I had made a little bit more money.

(RMM): We’ll get it back to you and you can make whatever you want to do or if we left something out and you want to add something. A name or something.

(AH): I think I’ve given you a fairly good one. There are all sorts of stories, things that developed over time, you can tell stories. It’s sort of like the one time I was thinking about the first pacemakers I had put in. Bonnie Wanska would be able to confirm this. I slipped in [a] temporary pacemaker in this old gentleman that had heart block and his heart rate was around 40. He was very symptomatic. We had him in our ICU, which was up in the old room, the four bedroom (intensive care unit). Where every time I’d have four or five ventilators [running] we’d blow out all the circuits, and we’d have all these resperatory therapists bagging the patients while we are trying to get the electrical things set up. For some reason, back in those days, there was an immense amount of trauma and I was getting all kinds of trauma patients. People with collapsed chests, and I’d have them on ventilators for weeks. So anyway, to get away from that, this one, he had a heart rate of forty, short of breath, a little confused - I said to Bonnie, “We need to get a pacemaker in this guy”. So fine, we get the fluor (fluoroscopy) up in there. We get the catheter in there. I

slip the pacing wire into the right ventricle. I hook it up to the external pacemaker with the idea that I would pace him until I could take him down and do a permanent pacemaker on him. But we get him at least out of his crisis, so I slipped the lead in, got the pacer going, hooked it up, and set it at a heart rate of around seventy or so. The guy brightens up a little bit. We're talking, and somehow, I don't know what happened. These old generators were huge. I placed it on his chest but we hadn't tied it down yet. It slipped off. I taped the catheter and the pacer wire down to his chest but the unit itself fell off the bed and the unit separated from itself and fell on the floor and we both turned around and looked over and the guy's heart just stopped. He had no heart rate at all. We're down there (on the floor); we get the pacemaker up there and are trying to get the wires back to the thing. Finally, we get it going and capturing his heart again, and he kind of wakes up a little bit and he asks, "What happened?". I said [at the time, I had just read Kubler-Ross's book on death and dying (On Death and Dying by Elisabeth Kubler-Ross)], and I thought, "You know, he basically died". I said to him, "What happened? Did you have anything happen unusual when you kind of blacked out a minute ago?". He said "No, the lights went out". I said, "Well, did you have any experience or anything?". Because he was out for maybe thirty seconds I said, "Were there any lights or anything?". He said, "No, the lights went out, it was just black".