College of Pharmacy
Oral History Project

The College of Pharmacy Oral History Project preserves the memories of individuals who have been direct observers of and participants in the history and evolution of the University of Minnesota College of Pharmacy. By conducting interviews with key individuals, this project enriches the College’s understanding of its own past while also contributing to the historical record. It likewise helps to ensure that the College’s legacy is documented, preserved, and made accessible to researchers and the public.
Biographical Sketch

Dr. Donald L. Uden was born in Minneapolis and raised in Coon Rapids, Minnesota. He earned his B.S. in pharmacy in 1975 and Pharm.D. in 1976, both from the University of Minnesota College of Pharmacy. Dr. Uden completed a fellowship in pulmonary medicine and clinical pharmacokinetics at the St. Paul-Ramsey Hospital and Medical Center in 1977. He began working at the Minneapolis Children’s Medical Center in 1979. There he served as Assistant Director of Pharmacy Services from 1979-1980, as Associate Director of Pharmacy Services from 1980-1983, as Director of Pharmacy Services from 1983-1985, and as Director of Research Administration from 1987-1992. Dr. Uden also worked at the St. Paul-Ramsey Medical Center, serving as Director of Clinical Pharmacy from 1985-1987. Dr. Uden returned to the University of Minnesota College of Pharmacy as Instructor of Clinical Pharmacy in 1977. He was promoted to assistant professor in 1981, to associate professor in 1985, and to full professor in 2002. He also served as Associate Dean for Student Services from 2000-2007.

Dr. Uden devoted his research career to the study of pediatric care, rural pharmacy practice, and interprofessional education. His work in emergency and rural care also contributed to the establishment and legitimization of clinical pharmacy. Among other notable accomplishments, Dr. Uden devised a solution named LET (lidocaine, epinephrine, and tetracaine), which replaced the use of TAC (tetracaine, adrenaline, and cocaine) as a topical anesthetic. LET is preferable to TAC, given that it reduces patient exposure to cocaine. LET has since become widely adopted in emergency care around the world.

Throughout his career, Dr. Uden was highly active in professional organizations and held various appointments outside the University of Minnesota. He worked for the Food and Drug Administration, the American College of Clinical Pharmacy, the American Lung Association of Minnesota, the Minnesota Department of Health, the Institute for Clinical Systems Improvement, the Minnesota Pharmaceutical Association, the Minnesota Society of Hospital Pharmacists, Minnesota International Health Volunteers, Pharmaceutical Card Services, Inc., Cardinal Health Systems, Inc., and Point of Care Decision Support. He also served on editorial boards for Drug Intelligence and Clinical Pharmacy and Innovations in Pharmacy.

Dr. Uden received numerous professional and teaching awards. He received the Distinguished Service Award from the American Lung Association in 1983 and was awarded fellow status with the American College of Clinical Pharmacy in 1990. He received the University of Minnesota Graduate and Professional Teaching Award in 2003 and the Center for Health Interprofessional Programs (CHIP) Champion in 2005. He was named Teacher of the Year in 1996, 1997, 2001, 2002, 2015, and 2016. He received the Lawrence C. and Delores M. Weaver Medal from the University of Minnesota College of Pharmacy in 2017. In 2019, the Hadsall-Uden Fund for Pharmacy Advancement was created in honor of Dr. Uden and Dr. Ronald Hadsall. The fund supports professional and graduate students conducting research in the areas of clinical and/or social and administrative pharmacy. Dr. Uden died on March 21, 2020 at the age of 67.
Interview Abstract

Dr. Uden begins his interview by discussing his childhood and high school experience in Coon Rapids, Minnesota. He then reflects on his coming to the University of Minnesota as an undergraduate, his early experiences with pharmacy practice, memorable classes, and his interaction with the medical school. He then describes the development of the Pharm.D. program and changes in the popular image of a pharmacist. He then discusses the significant relationships he formed with Dr. Lawrence Weaver and with peers through the professional fraternity Kappa Psi. He then reflects on his post-graduate work at the St. Paul-Ramsey Medical Center, his increasing involvement with pharmacokinetics, and his growing interest in clinical research. Dr. Uden then describes his time at Minneapolis Children’s Medical Center, his role there as Director of Pharmacy, and his work in pediatric and emergency care.

Dr. Uden then discusses his return to the University of Minnesota as a faculty member and reflects on his experience with tenure policies and procedures. He then discusses the growth of clinical pharmacy and the pharmaceutical care movement. He then describes the Pharmacy Rural Education Program (PREP), as well as the development of the Rural Health School and his role as interim director. He then reflects on the deanship of Gilbert Banker, the state of the University of Minnesota College of Pharmacy in the 1990s, and the dynamic between Rho Chi and Lo Chi. Dr. Uden concludes by discussing the Doctor of Pharmacy Program for Practicing Pharmacists (DP4) and reflecting on his experience as Associate Dean of Students.
Donald L. Uden: DU
Lauren N. Ruhrold: LR

LR: This is Lauren Ruhrold. I’m here with Dr. Donald Uden. It’s October 14, 2019. We’re in Diehl Hall, Room 525E.

Thank you for meeting with me today.

To get us started can you tell me a bit about where you were born and raised and your educational background?

DU: I was born here in Minneapolis. In fact, my family is from northeast Minneapolis where I presently reside. My mother had five kids. We moved to Coon Rapids [Minnesota] when I was about four years old. All of my high school education and grade school education was up in Coon Rapids. Then, after I graduated from high school, I applied to the University of Minnesota and I came here originally as a math major.

LR: Interesting. What about math was attractive to you at first?

DU: [chuckles] Math was attractive because I was good at it and I didn’t really have another idea what I wanted to do. I was the only child of my brothers and sisters who went to college. I never really had aspirations until later that I was going to be interested in pharmacy or was going to go into the pharmacy program.

LR: What drew you to the University of Minnesota?

DU: It was home town, the home town university. I didn’t look at any other place. I applied and I got in, so without much forethought.

LR: Can you talk a little bit about what you expected college to be like?
DU: I really didn’t have any expectations. I realized that it was going to be totally different than high school, that I would be living away from home for the first time in my life. I lived in a dorm and, then, I lived in a house with medical students on campus here. The classes, I didn’t find them particularly hard when I first came here.

LR: What were you like as a student in high school? Was high school more challenging?

DU: Actually, high school wasn’t challenging. I was always known as one of the class jokers. I was one of the top students in the class. I focused on all the math that I could get in. The thing that I wasn’t very good at was English. Over the years, I have come to fix that in terms of grammar and how I edit papers and the like.

LR: Can you talk a little bit about your transition from starting in mathematics to finding pharmacy?

DU: Yes. When I was in high school at Coon Rapids, I was a delivery boy for a pharmacy, Hanson’s Drug in Coon Rapids. It was owned by Don Hanson and Duane Hammargren. After school in high school, I would go to the pharmacy, pick up prescriptions. They had a delivery van and, then, I would load a bunch of my buddies into the van and we would go around Coon Rapids delivering prescriptions. So, that was my first exposure to a pharmacy.

Then, after that, as I say, I was admitted as a math major. One day, a young pharmacist at Hanson’s Drug said, “What are you going to do with a math major?” I had no clue what I was going to do with a math major. He said, “Why don’t you go into pharmacy?” I went, “Oh, okay.” I applied and got into pharmacy. So, there was no forethought again at all about me choosing pharmacy. That’s back when it was a quarter system. I actually made the decision in winter quarter. I applied to the college and I got in and my math major days were over at that time.

At that time, the pharmacy program was a five-year program, Bachelor of Science [B.S.] in pharmacy, and it was either a 1-4 program or a 2-3 program where you could apply after your first year of college and get in or after your second year of college and get in. I don’t really think there was anything different about those ways of getting in. You either had two years of pre-pharmacy or one year of pre-pharmacy. Since I was a math major, I was going to be taking chemistry and all that stuff anyway, so I had all the prerequisites without even knowing it.

LR: Did you transition after your first year or second year?

DU: After my first year—quote/unquote—two-thirds of a year, being a math major, I was in the 1-4 program, so I was admitted. Yes, then, I was in the College of Pharmacy. At that point in time, I had four years to go.
During my time in the College of Pharmacy, my exposure then was … The only time I’ve actually worked in retail pharmacy was Gray’s [Campus] Drug in Dinkytown. I was part of Kappa Psi. We can talk about that later, if you want to. The Kappa Psi fraternity members had a direct line to being hired at Gray’s Drug. That was my official exposure to retail pharmacy. They, also, had a fountain and I learned how to make floats and such. It was an old-time pharmacy back then.

LR: Can you talk about other experiences while you were a student in the pharmacy program?

DU: That was really the only experience where I was associated with a pharmacy or actually worked in a pharmacy filling prescriptions. Again, that was back when you typed labels. You did them on a typewriter. You determined the price. We’d just kind of say, “Okay. Well, the cost of the drug is a dollar. Why don’t we charge them two dollars?” It was very, I would call it, loosey goosey at the time, not anywhere close to how retail pharmacies are run these days.

LR: Did many of your colleagues, students, also work there?

DU: Yes. My fraternity brothers were the ones who were the out-front people. Obviously, there were pharmacists there. [Lester] Les Hackner was the one we knew the best. He was the main pharmacist there.

LR: Can you talk about some memorable faculty or memorable classes that you took while you were an undergraduate?

DU: In the pharmacy program?

LR: Yes.

DU: Ummm… I don’t know if I can pick out something in the pharmacy program at the time that was memorable. I was good at chemistry, also, so in all the classes in medicinal chemistry, I did fine. I had good grades. I graduated with distinction. I don’t remember anything particularly that would stand out to me today that I liked.

LR: What was exciting to you about pharmacy, about a potential career in the field?

DU: Again, in my whole career, I’ve fallen into what I’ve done. I don’t know how much of it has ever really been purposeful. There’s been opportunities and I’ve stepped forward and took those opportunities. When I was in college, I was active. I was the college board president and I was the president of the fraternity.

One day, John Fordice, who was a faculty member… There was a brand new program called the Pharm.D. program and we were one of the first programs in the country. At UC-SF in San Francisco Bay, they had a Pharm.D. program for many years. But other programs across the country didn’t adopt the Pharm.D. program until, actually, many
years later. One day John Fordice talked to me. He said, “Hey, Don, why don’t you apply for the Pharm.D. program? You get good grades. You’re a leader of your class. Why don’t you apply?” I had no clue what this Pharm.D. program was at the time. I applied and, sure enough, I was admitted into the Pharm.D. program. I was in the third class of the program. There were, at the time, twelve people in my class, one woman. What made me, I guess, stick out was that the eleven other individuals already were pharmacists and had come back for the Pharm.D. degree or already had other degrees. Actually, when I graduated, I graduated with my Pharm.D. degree at the age of twenty-three. I was the youngest Pharm.D. I think there was somebody in Duluth just recently who graduated younger than I did but I was the youngest graduate of the Pharm.D. program.

LR: Could you feel in your classes that everybody else had this experience that you did not?

DU: [chuckles] It was very obvious that my classmates had experience. I was able to rely on them, to understand what their experiences were. They could tell me, “Well, hey, this goes like this,” or “This goes like that.” Academically, I was just fine in the Pharm.D. program.

Interestingly, that’s when the Academic Health Center was being formed, when [Lawrence] Larry Weaver, the great visionary that he was… The Academic Health Center was being formed at that time. He knew that pharmacy was going to be a major part and, likely, the individuals who had a more extensive education than those with Bachelor of Science degrees.

Where Weaver-Densford Hall is now, there used to be a house called Fenwick Hall. That’s where my classmates and I were housed. It was a house. There used to be old bedrooms, as I remember it.

Academically, we took classes with the Medical School…pathophysiology. That’s the study of diseases. So, if you have asthma, we’d study asthma. If you had heart failure, we’d study that. If you had whatever… We knew about cancer at that time. We’d study that. We would attend classes with the medical students. We would take the same exams that the medical students took, at the time. The Pharm.D.s, we were right in there. I remember a couple years after me, there was a student who was the top student in the medical student class and it was a pharmacy student taking those classes.

We had a good time in Fenwick Hall.

I remember a time when—I forget which exam it was—one of the individuals who graduated the year before me in the Pharm.D. program… I graduated in 1976. Ed Krenzelok graduated in 1975 and he was one of our instructors. The exam, I think, was kidney, renal. We knew it was going to be long. It went for, like, two and a half hours. We actually brought a turkey in.
LR: [laughter]

DU: We cooked the turkey while we were taking our exam. I particularly remember that.

LR: [laughter]

DU: It was very interesting.

As students taking classes with the Medical School, we were over here in the Medical School, at the time…a pretty interesting thing in terms of Pharmacy being accepted.

The Department of Pharmacology, at that time, are all physicians, physician pharmacologists. Pharmacy was different than Pharmacology. The Pharmacology Department would have weekly or monthly case studies where a physician or a medical student would get up in front of a group of faculty and would present a case that had to do with drugs and some difficulty with a drug treating somebody. How would you treat them with this drug versus that drug? We thought that would be a good idea to go and sit in on those case studies. We went. About two times we were there. [Bernard L.] Bernie Mirkin, who was the head of Pharmacology, at the time, disinvited us right in front of everybody. He said, “Who are you?” “We’re Pharm.D. students from the College of Pharmacy.” He, basically, disinvited us to come to the care conferences. [chuckles] It was an opening of my eyes to the fact that, yes, being pharmacists, we clearly were not accepted at that time and it took a long time for us to be accepted.

LR: Did you experience that sort of friction between the Pharmacy program and the Med School in other ways?

DU: Not that I recall.

There was a point in time—this was not friction—where the Pharm.D. class grew. My class was twelve. The class after me could have been twenty and, then, it grew and there was no more space to take pathophysiology with the medical students. So, the college had to hire clinical pharmacist faculty to teach that portion of the curriculum.

LR: In keeping with the Pharm.D., I’m curious… What was your impression about how the faculty perceived that degree when it was first coming to the U? I’ve read some about there being tension around the Pharm.D. and I wonder if you sensed that at all.

DU: I didn’t sense it, but with any change in major curricular content or where you’re going to go, there’s always going to be, I’d call it, friction about asking the tough questions about why are we doing that. What are these people going to do that pharmacists aren’t going to do? The friction would mostly come from our basic science colleagues. They’re Ph.D. individuals, not necessarily pharmacists. In fact, most of them were not pharmacists before they earned their Ph.D. They were always questioning. We were pushing against, in the Pharm.D. program, the old image of what a pharmacist was
and what they would do and that we would actually not necessarily be going into retail pharmacy. That was the picture. The picture back then was you were either going into retail pharmacy or hospital pharmacy. So, the group of early Pharm.D.s had to go out there—well, they didn’t have to—but they went out and created new and different, I’d call them practices, roles for pharmacists within the health care setting.

LR: You brought up the Academic Health Center before. How aware were you that that was starting to form in the 1970s? What sort of impact did that have on you as a student?

DU: I was very close to Larry Weaver. I can call him truly one of my mentors. I was invited to his house and when there were events at the Campus Club, I’d be walking over there with Larry to the Campus Club and back. He would tell me what his vision was.

Again, that’s getting us out of Appleby Hall, which is where I took almost all of my Bachelor of Science and pharmacy classes. Now, we were over at Fenwick, which, then, became Health Science Unit F and, then, subsequently, Weaver-Densford.

I understood the basic premise that pharmacists were health care providers. We were in the same bucket providing care that other individuals were doing. It wasn’t just exclusively medicine’s realm.

LR: Can you talk about Dr. Weaver in terms of his mentorship to you? Did that manifest in classes or through a mentorship program?

DU: We didn’t have a formal mentorship program, but, since I was one of the student leaders, I interacted with him a lot being the dean…with him and Frank [E.] DiGangi, who was the associate dean of students. I, basically, interacted with him a lot. We went to state conferences, the MPhA [Minnesota Pharmacists Association], MSHP [Minnesota Society of Health-System Pharmacists] conferences. I was with him. I know [Delores Weaver] Dee very well. At the conferences, Dee and I would love to go out and dance during the party nights. [chuckles] She still talks about both of us getting out on the dance floor and dancing.

LR: [chuckles]

[pause]

LR: You mentioned Kappa Psi. Can you talk about your roll in the fraternity and what it offered you as a student?

DU: Kappa Psi, one of actually three professional fraternities, Phi Delta Chi and… Phi Delta Chi had a house. Kappa Psi did not have a house. Then, there was Kappa Epsilon, which was considered the female sorority at the time. I was asked to join Kappa Psi. Being a student leader, I was asked to join, but I was really hesitant because, at that point in time, there was still the hazing. So, there would be pledge night. I said, “I will not participate in any of the hazing. If you want me to join, I’m not going to do that.”
Instead of saying, “No, you can’t,” the brothers, at that time, allowed me to join. I think we might have done something that was very benign. I don’t remember what it was. That was really the start of not hazing. You’re in a professional fraternity. I couldn’t see why you would go through a hazing ceremony if you’re going to be a professional.

The projects that we did…STD, sexually transmitted disease, talks. Way back then, we were going around to schools giving STD talks. We had other activities that would try to benefit the college and the community. I can’t remember all of them, but the STD talks stick out.

The president is called the regent. I ran for regent and I was elected regent. I can say that, to this day, a lot of my great pharmacy friends are still from the college, so…

[break in the interview as Dr. Uden expresses personal remarks]

LR: Can you tell me about what you did after graduation?

DU: Again, I graduated at the age of twenty-three. I had no clue, again, what I was going to do. I didn’t know. I was young. I didn’t have the experience of my classmates.

Darwin [E.] Zaske, who was really a pioneer of clinical pharmacy, said, “Don, why don’t we make a fellowship?” Darwin graduated in the first pharmacy class. He said, “Why don’t we make a fellowship for you”—he was at the St. Paul-Ramsey Medical Center, at the time, which is now called Regions [Hospital]—“a research fellowship?” I had not done any research at all, whatsoever, before that. I thought it would be pretty interesting. I don’t know, I probably made $5,000 a year. He had money, $5,000 a year. I went over to St. Paul-Ramsey. Darwin had some clinical research trials going on and they were in pulmonary, individuals with chronic obstructive pulmonary disease [COPD]. Theophylline, at the time, was a drug that was prominently used in those individuals. So, we were doing theophylline pharmacokinetics.

That’s at the same time that pharmacokinetics was in its infancy. Pharmacokinetics is when you take a medication, let’s say you take it orally, how fast is it absorbed? Where does it go in the body? Once it goes and does what it does, how does your body get rid of it, either by the kidneys or by your liver or some medications get excreted through the lungs.

We had elderly gentlemen; they were all gentlemen, elderly, with chronic obstructive pulmonary disease that we would give a dose of theophylline and, then, we would draw blood out of them. We’d give them a dose, a tablet, and, then, draw a sample of blood at fifteen minutes, at thirty minutes, at an hour, at two hours, at four hours, at six hours. At the same time, I was having them spit in a cup, because theophylline, you could find in your saliva. We were looking to see, in fact, if you could use salivary theophylline levels, concentrations, to accurately predict what the serum concentrations were. I did a lot of that type of work at Ramsey when I was there.
That’s when I formed a great relationship with [Kenneth W.] Ken Miller and [Ronald J.] Ron Sawchuk, who were both in the Department of Pharmaceutics. They taught me my advanced pharmacokinetics.

It was a point in time where all of the data that we had from the serum concentrations and saliva concentrations were put on a punch card. These punch cards were in order. So, I would be walking around with a box of punch cards, bringing them to the computer. At that time, you would have to run them through the computer. The computer would look where the holes were in the punch cards and that would be the data. I remember that if I ever tripped, all of the data would have been totally, totally messed up. They were interesting times.

That’s where I really got the fever for doing clinical research. So, for once in my career, I knew what I wanted to do.

That period of time when I was a fellow was when St. Paul-Ramsey was becoming one of the leaders in clinical pharmacy in the country. Darwin Zaske was there, and [Robert J.] Bob Cipolle was there, and [James] Jim Cloyd was there, and Harry [G.] McCoy. They all had areas of specialty. They were starting research programs at Ramsey. I had an office with Jim Cloyd. It, basically, was two desks put together. We were looking at each other and it was in the mop room.

[laughter]

DU: Yes, we were in there. Individuals who were mopping the floor would come in. There was a sink there and they would clean their mops and go out again. So, that was one of the interesting things that happened during that time.

LR: It’s interesting to hear that you got the fever for clinical research. What about that was so appealing or so attractive to you?

DU: I might say I think I was the first fellow in the country, either the first or second fellow in the country. That was totally new and it just goes to Darwin’s vision in terms of how to move it forward.

Clinical research then and throughout my career, you’re trying to generate new knowledge. There’s a question about why does this do this or how does that do that or how fast is something absorbed. You’d be there going, “Okay, we can figure that out.” I’ve had great joy throughout my career, particularly when I was in pediatrics, designing clinical research trials and, then, carrying them out.

LR: Within pediatrics, was there any research topic that was particularly interesting to you?

DU: They all were.
I guess if we want to transition to my time at Minneapolis Children’s [Medical Center]…

I got there with my fellowship. At that time, it was a one-year fellowship. Now, they’re all two-year fellowships. As things happen, they became more regimented as the time went on. Being one of the first, we were, basically, if I can use the term, cowboys. We were just, okay, let’s go out and just do it. Over the years, the fellowships have become two-year and three-year fellowships. Now, they are sanctioned. They are certified through the American College of Clinical Pharmacy.

Going to Children’s… When I finished my fellowship, again, I didn’t have a clue what to do. I didn’t have any experience in pediatrics. There was a job open at Minneapolis Children’s for a Pharm.D. That job was open because the founder of the hospital, a physician, pediatrician, [Arnold S.] Arne Anderson [Jr.], the director of pharmacy [Richard A.] Dick Macko, and the head pathologist, Ralph [A.] Franciosi had heard about these new fangled pharmacists. Arne Anderson wanted one. He said, “We got to have one here in pediatrics.” So, there was this job open. There weren’t many of us to fill a job like that. I said, “Okay, I’ll go over there and do that.” I didn’t know anything about pediatrics. I learned about pediatrics. Every morning, I would go in and I would read for an hour about some type of pediatric topic.

At that time, Minneapolis Children’s Pharmacy was not open twenty-four hours a day. They got all their medications from Abbott Northwestern [Hospital]. Abbott Northwestern was the parent pharmacy. Children’s Pharmacy was kind of like the satellite pharmacy to them. When I was hired, I was hired through Abbott Northwestern, not through Minneapolis Children’s.

At that time, it was a union shop. I was going to be hired through the union. I said, “No, I’m not going to be hired through the union.” My thoughts at that time were that the union would constrain what I wanted to do, not that I knew what I wanted to do. Dick [Mizgin], who was the director of pharmacy at Abbott Northwestern, and Dick Macko, the director at Children’s, made it such that I would, then, become an assistant director of pharmacy. It was—quote/unquote—in administration. If you were in administration, you wouldn’t have to be part of the union.

LR: In your position as assistant director were you continuing your research program?

DU: I actually really wasn’t assistant director of anything. It was just the title.

LR: Okay.

DU: I was hired and part of the deal was that I wouldn’t work in the hospital pharmacy, except for one weekend a month. I would work one weekend a month as—quote/unquote—a real pharmacist and the rest of the time, Dick Macko and Arne Anderson just said, “Go out and do good things. Go out and do what you people do.” Well, I lasted in the pharmacy, actually working in the pharmacy as a pharmacist, for maybe six months.
Then, I was out making connections in the hospital and developing the clinical pharmacy services there. Doing that, I targeted the Neonatal Intensive Care Unit [NICU], because they were all captive. All of the neonates were captive. There were only two physicians, two neonologists at the time: David [B.] Klein and [Charles J.] Chuck Alward. I formed relationships with them. That’s at a time when dosing medications in neonates that little, how do you get an IV in them and how do you dose them? How much drug do you give them? Those were all a lot of unanswered questions at the time that I was working with Chuck Alward and David Klein, trying to figure out how are we going to do that in some of these kids. As neonatology got better, the neonates became smaller and smaller. There were always challenges, questions that needed to be answered. I really liked that. I started out working in the NICU. My name was getting around at the hospital—quote/unquote—that we have this new pharmacy consultant, so if there was a drug issue, they would call me.

Ralph Franciosi, the head of pathology… That’s where all laboratory values are drawn. For instance, blood levels of a certain antibiotic would go through pathology. The lab would go draw the blood samples and pathology would analyze it. Ralph had heard about this thing called pharmacokinetics. He didn’t know a whole lot about it but he knew he wanted somebody in the hospital to help interpret these blood levels. They’re really serum concentrations. A level is something you put on a table to see if it’s level. But serum concentrations, how to interpret them… I was on call twenty-four hours a day 365 days a year. We agreed that I would approve all STAT serum concentrations. If somebody wanted a STAT this, I would get a call and I would ask the questions. “When was the dose given?” “What time do you want the blood drawn?” I would say, “This is the time when you should draw it to get the most information.” There were times where I would say, “No. No, I’m not going to approve that, because you’re not going to get any good information out of it.” That caused some tension with some. All of a sudden, here’s a pharmacist telling a physician that they can’t have anything.

I made great relationships with the ER, the Emergency Room. Gail Davidson was the head nurse of the Emergency Room. At that point in time, childhood poisonings were—they have always been—an issue. If a child came in in the middle of the night with a poisoning, I would get a call and I would come in, if it was appropriate, to help manage the poisoning. At that time, I was living out at Eden Prairie, so I would drive in from Eden Prairie. It could be two in the morning that I would drive in and help Gail or whoever was in there. At that time, there were no official pediatric emergency room physicians. Your pediatrician would come in and see you. There were no hospitalists in the hospital. The pediatricians would come in the morning and round on their patients and then go do their pediatric practice and, then, come back. It’s a much different format and way to do it these days.

Then, I went into the Pediatric Intensive Care Unit. So, I kept expanding my, I would call it, influence at Children’s. There came a point in time where, okay, I got over my head. I just couldn’t handle it all, so I hired another clinical pharmacist, [David] Dave Watson. It got bigger and it got to be more people as we went along.
LR: I can only imagine how demanding that must have been to be on call all the time.

DU: It got tiring. It was nice to have somebody else come in.

LR: While at Children’s, were you working mostly with physicians or did you have direct contact with patients, as well?

DU: Both. I was working mostly with physicians. The patients were pediatric patients. I’d go in and joke with the kids, if it was a two-year-old or a three-year-old, but, basically, it was working mainly with physicians; although, I was up on the floors. I was in patients’ bedrooms. I was talking to parents in terms of what medications the kids were on, if there was any issue, anything that I could clarify. That was my, I would call it, clinical practice, my service.

Then, out of that grew my research program. Again, that started in the Neonatal Intensive Care Unit. I had research projects going there. I had them going in the ER. I had them going with neurology. I had studies going with the cardiologists. I was focused on pediatrics and not focused in any particular area like pediatric infectious disease or pediatric pulmonary—although, pulmonary was still very at the top of my mind. My fellowship was a pulmonary fellowship working with theophylline, so it was just a natural extension. We did some, I think, really interesting studies. I could talk about a couple of them.

In the NICU, premature babies many times will have lung disease. Their lungs will get stiff and you can’t oxygenate them very well. You put them on a ventilator and their little lungs are so stiff. You can’t expand their lungs so that you can get the oxygen in. There was a technique called ECMO, extracorporeal membrane oxygenation, where you actually take and divert the blood. It’s almost a modified heart/blood bypass, where we would run the child’s blood through a cartridge. It was like eight inches long and two inches in diameter. We would oxygenate the blood in the cartridge and, then, pump it back in. So, you would bypass the neonates lungs so that their lungs could heal.

The challenge with that is any time you’re working with blood, you don’t want the blood to clot. If it goes through that cartridge and it clots off, then you’re in real big trouble in terms of the survival. What you’d have to do is put the neonate back on the ventilator. It would be just a big mess. So, I did a lot of research looking at how to maintain the right clotting, the right, I’ll call it, blood thinning. Most people would understand blood thinning. How much heparin would you give to keep the cartridge from clotting off? Nobody knew what that was. If you give too much heparin, then the child could bleed in other places. If you give too little heparin, there would be the chance that the cartridge would clot off. I did many studies. [Robert] Rob Paine [III] was the major physician that I worked with and [Pamela J.] Pam Kriesmer where we were doing those types of studies.

One of my favorite stories about that is we actually were doing lamb studies. We hooked up one of these things to lambs. We were in the animal lab in the basement of the
Hennepin County Medical Center. That was the year the Twins [baseball team] were in the World Series, so we were in the basement of Hennepin while everybody was outside celebrating.

[chuckles]

DU: I did a lot of work in that. I was very pleased. We really advanced that.

In the emergency room, one area that has now gone across the continent… When pediatric patients came in and had a cut on their face, you could stitch it up if they had to be stitched up. Lidocaine is kind of like novocain. One of the traditions was that you would stick the needle in around the wound and, then, you would stitch it. The problem with that was that when you put fluid in around the wound, it would make it puffy around it and you couldn’t stitch it well. So, one of the standards of care was to soak a gauze in a solution that had tetracaine—it’s kind of like lidocaine—and adrenaline, which is epinephrine, and then cocaine. Cocaine is a vasoconstrictor and an anesthetic. Epinephrine causes vasoconstriction. Then, lidocaine was also a numbing agent. We wanted in the hospital to get cocaine off the floors as much as we could. So, I and one of my first fellows devised a solution called LET, lidocaine, epinephrine, and tetracaine. I cooked up a formula and I thought, okay, this will be as effective. I figured out how much of this, how much of that would be effective. We did clinical trials. Actually, we only had to do two clinical trials and it showed that this stuff was as effective and it got the cocaine out of the ER. We didn’t want it in the ER. That became adopted in pediatric hospitals across the state and, then, across the country. That formula is being used all around earth right now. So, that’s pretty cool. I’ve never made any money off of it. Well, I guess I did: I made about $2,000 off of it because these were ingredients that you could take off the shelf and put them together.

[break in the interview]

LR: Can you tell me about some of the fellowships that you developed at Children’s?

DU: Research was going very well at Children’s and I was getting so many different research projects. Because I was a fellow, I decided that it would be very interesting and good to develop a pediatric fellowship at Children’s. I used the model that, first of all, the fellows would come in and work with me and do clinical research. But to pay for them, they had to work in the pharmacy two weekends a month.

LR: [chuckles]

DU: At that point in time, I was Director of Pharmacy at Children’s. Hey, this guy is doing great things. Make him Director of Pharmacy, which was okay and which was not necessarily okay.
I started a fellowship program in 1982. It went through, essentially, 1997. I had six different fellows and all of them have gone on and done remarkable things in their careers and it all started out with doing clinical research at Children’s.

There was a point in time at Children’s—this is how we’re going to transition me over to faculty—where I didn’t want to be Director of Pharmacy anymore because I was dealing with employee issues. There were all sorts of politics around the Pharmacy that I wasn’t really interested in. So, I hired an associate director to take care of the human resources, the challenging scheduling, and doing annual reviews, etcetera. I wanted to focus on clinical research. At the time, the director of research at Children’s was a pediatrician named Karen Ulness. She wanted me to come and help her. She wanted me to be co-director of research with her. In, I think it was, 1985, I put a pitch to my boss, who was Dick Macko. He moved up in the organization. Then, his boss was the head of the lab, who at that time was an administrator. Not Dick but the head administrator wanted me to stay as Director of Pharmacy. At that time, that wasn’t really what I wanted to do.

I talked with Darwin Zaske again at St. Paul-Ramsey. This, mind you, is now nine years later. He enticed me to come back to Ramsey, so I left Minneapolis Children’s…all the work that I had done there. I became a faculty member [at the University of Minnesota] at that point in time. I came in as a tenured associate professor. So, I was at St. Paul-Ramsey again doing clinical research but not at Ramsey. I had projects at Park Nicollet [Health System], at Minneapolis Children’s, at the University. I had research projects going on all around the city because there weren’t really any pediatric patients at Ramsey.

Then, after two years of being at Ramsey, the new medical director at Children’s, Mitch Einsig, a physician, pediatrician said, “Don, why don’t you come back? We’d like you to be Director of Research at Children’s.” So, I left Ramsey in 1987 and went back to Children’s to be Director of Research. Again, that probably was the first in the country of a pharmacist being a director of research at a hospital. I had fellows there, at that time. I was helping administer all sorts of research projects of physicians that I wasn’t involved in. It started becoming a bigger and bigger deal at Children’s. That was probably some of the most rewarding times of my career.

LR: What was it like to balance working here at the U while working also at these other places?

DU: Well, when I went back to Children’s, Jim Cloyd, who was the Chair of the Pharmacy Practice Department at the time, which was the department I was in, made an arrangement with Children’s that Children’s would pay me fifty percent of my wages and the U would pay me fifty percent of my wages. But I spent eighty percent of my time at Children’s. Then, I had some time at the U for committee work and for teaching. The majority of my time was at Children’s. We were taking students at Children’s, at that time; whereas, early on, we weren’t taking students until things got up and running.

LR: Wow, interesting.
Could you talk about what it was like to become a colleague to your former professors?

DU: [chuckles] Ummm… When I became a—quote/unquote—faculty member, I had really good relationships with the faculty. Ten years ago, I had been a student of theirs. I was a good student. I wasn’t in trouble. I had a personality that could get along, would not be grating with the basic science colleagues. When I came back, it was really, really smooth. I mean, it was great to have those individuals as colleagues. Most of them have retired now of that era. It was really a smooth transition for me becoming a colleague of the individuals who I learned from.

LR: Can you talk about the circumstances surrounding your promotion from instructor to tenure track professor? What happened with that?

DU: Originally, when I went to Children’s, there were four levels. There was instructor, assistant professor, associate professor, full professor. Is that four?

LR: That’s four.

DU: At the time, the college was hiring, if they were going to put a new faculty on that they weren’t directly paying for… When I first went to Children’s, the college didn’t start paying me until 1985. I was at the instructor level. Once they saw that I was doing research, I was promoted to assistant. I was instructor for four years. Then, I was an assistant professor from 1981 to 1985. Then, in 1985, when I left Children’s to go to Ramsey is when I was promoted to associate professor with tenure. At that time, the whole college voted on you. It was basic science faculty, clinical faculty, the whole college voted on you. All the basic science faculty thought I had done enough. I brought in enough money that I was awarded tenure.

Now, that’s not the structure anymore. Now, the departments make the decision about whether somebody in their department will be tenured. That grew out of some unfortunate circumstances where people who were clinical people didn’t get promoted because they were clinical and the basic science people… Individuals weren’t bringing the same type of grants: NIH [National Institutes of Health] grants. We were publishing in different places than they were publishing. There was a lot of tension around that. I’m sure Marilyn Speedie has talked about it. Then, we went to a departmental structure for promotion and tenure.

LR: Do you remember around what time that shift happened, from the whole college voting on tenure to just the department?

DU: It would have to be in the 1990s. A couple of my very close colleagues…or at least one was one that was caught up in the middle of it.

LR: Was it clear to you how the tenure and promotion policies worked? Was that a transparent process or was it more difficult to discern?
DU: I can tell you right now today, in 2019, it’s much more laid out in terms of what you need to do than it was back then. Promotion and tenure, some of it is the number of publications you have and how much money you’ve brought in. But, also, there is a political component of it. It’s not all cut and dry. You could have somebody like me who came in with thirty publications and I don’t know how much money getting promoted and, then, you could have somebody who would come in with twenty [publications] and that person could be promoted or not promoted. It depends upon what type of work they were doing. It wasn’t all cut and dry. It wasn’t just counting numbers. Getting it to a departmental vote so that your colleagues are the ones who are voting on you, the people who are doing the same type of work, was a major advance for the clinical departments at the college.

LR: I wonder if we could talk more about the growth of clinical pharmacy at the U. It seems that Weaver was very, very supportive of clinical pharmacy.

DU: Yes.

LR: How was clinical pharmacy received by the rest of the college? What was Weaver’s place in promoting it?

DU: Again, my class was twelve. The classes kept growing and growing. The individuals who we were graduating in the beginning were people who were going out and totally paving new avenues…totally. Individuals like me were not out there. First of all, Larry knew what we could do. He saw the potential in patient care of where a pharmacist would fit. The Pharm.D. program became larger and larger, and the B.S. program became smaller and smaller. We had to…we definitely had to prove to basic science that we could cut the mustard. We had to actually advertise what we were doing in hospitals and how we were using…advertise to them like in faculty meetings what we were doing in communities and hospitals and the impact that we were making. Now, we were starting to graduate more Pharm.D.s. They were going out and they were going to places that were established and they were going to places that were new. Larry knew. He was such a visionary. He knew. He was a pharmacologist by training. He knew at least that side of the world. [chuckles] He knew that if he got pharmacy into patient care, then we would really have a good foothold.

[pause]

DU: I left Children’s in 1992 and I went back to be full time faculty at the U.

That’s the time when Pharmaceutical Care… Bob Cipolle and Linda [M.] Strand and Peter Morley… Linda Strand and [C. Douglas] Doug Hepler actually got the Remington Medal for the concept of pharmaceutical care. We didn’t really have a practice. Well, Bob Cipolle describes it this way, “When you go to a dentist, they start on the same tooth every time. Then, they go around your mouth. When you go to a physician, they start at the top. They start at your head and they go to the bottom.” So, it’s a very regimented
way. But, we as pharmacists never had a regimented way or a way of practice where you would go in and say, “Okay, this is what I do first. This is what I do second. This is what I do third.” That’s where Bob Cipolle and Linda Strand came in with the concept of pharmaceutical care where pharmacists would be actually responsible in the health care system for assuring that any medication that you’re on is appropriately indicated, that when you take it, it will be effective, that it will be safe, and that you’ll be able to take it no matter what. If you need to take a liquid versus a capsule, whether you can afford it or not, there would be ways that we would actually get it to you. That was really the start of a pharmacist looking at a drug and say, “Okay, I need to with this medication and with this person go through, is it appropriately indicated?” If it’s not, then you should discontinue it. If it’s yes, that’s good. Is it effective? Well, if it’s effective, that’s good and if it’s not, maybe the dose is too low. Maybe I need to increase the dose. Maybe it’s the wrong drug. So, we started teaching our students how to approach it as that and that has been, again, inculcated to this day in our curriculum and, actually, in curricula across the country, that pharmacists look at a medication somebody is on. Those are the four things that you absolutely have to think about and in that order. You have to go in that order; there’s a rationale for that.

LR: Was pharmaceutical care also resulting in changes to the patient record?

DU: Yes. It was more loose back then in the 1990s. Now, there are collaborative practice agreements. You can, as a pharmacist, enter a collaborative practice agreement with a physician or with a nurse practitioner, whereby, if you have somebody with diabetes, you, the pharmacist, would take the major role in dosing, determining what insulin somebody should be on and what dosage they should be on. Pharmacists are doing it with heart failure, having collaborative practice agreements with individuals with COPD. That’s how pharmacists have gotten really imbedded into patient care using their expertise.

LR: Am I understanding correctly that the growth of pharmaceutical care was a huge support to clinical pharmacy?

DU: Well, it would be the back bone of clinical pharmacy. You can imagine if you were in a hospital clinical pharmacy, you’d go round on a set of patients. Those set of patients could be on fifteen medications.

LR: Hmmm…

DU: Just think about going through each one of those medications trying to determine if they’re all indicated, effective, safe, and that they can take that. In our health care system today, you may be going to a cardiologist. You may be going to a endocrinologist. You may be going to a internist. I can guarantee you the cardiologist is not going to change what the endocrinologist is going to do or the internist is. People get placed on these meds and nobody really takes a good look at whether they’re all indicated, effective, safe. So, that’s the role of a pharmacist. Today, there are programs in diabetes, in heart failure, in chronic obstructive pulmonary disease where pharmacists are doing that. If you’re on
fifteen meds, do you need to be on all of them? Are there drug interactions? There’s not a physician out there that’s going to be able to—I don’t want to sell them short—go through fifteen meds and say, “Okay, this one can stay. This one can go. This one is causing a drug interaction, causing adverse effects.” That’s how pharmaceutical care, at least that portion of it, the portion of looking at each individual drug...

Now, the American Association of Colleges of Pharmacy is adopting a universal for all colleges to teach. It’s called the Pharmacist Patient Care Process, PPCP, where, when a pharmacist goes in, it actually makes our practice more regimented. You go in and you come to Don, like me, and you collect information. What drugs is he on? What other things are going on? What diseases does he have? You collect that information. Then, you assess it. You’ve got information. You have to assess it. Once you assess it, there’s a plan. You have to make a plan. Then, you have to implement the plan and, then, you have to follow up. That’s the patient care process. Right now, it’s being presented as a real fancy wheel where it goes collect, access, plan, implement, follow up. You keep doing that, keep going around that wheel if you’re making any changes.

In our curriculum today, we’re making big inroads in having… That circle is kind of like a piece of the pie. If I’m talking about asthma—asthma is one of my areas of expertise—and the information to collect, I will actually have that little picture on the slide that I’m talking about. So students say, “Okay, he’s collecting information. This is what you collect.” If I go on and I say, “You can use this drug or that drug,” that’s where you’re assessing. So, I’ll have a little picture of that. Your plan would be, okay, I’m going to pick one of the two and this is the dose. Now, we’re incorporating that into the curriculum much more. We have basic science buy-in—not everybody but many, many people. I think that’s exciting for, again, getting our students to think. They have to think in a consistent way instead of a scattered way, which, many times, pharmacists tend to do.

LR: So, teaching them process and methodology.

DU: Teaching them the methodology about how to think, yes.

LR: Thinking about the 1980s and the 1990s and the growth of clinical pharmacy… Can you talk about the hesitation of the basic scientists and what their comments were about clinical pharmacy at that time?

DU: I don’t know if they were necessarily hesitant. Again, it’s because we were a new animal. They just didn’t know what we could do. This is just conjecture, but, hopefully, they had a look at what they were teaching to understand what we were doing as clinical pharmacists and alter their teaching such that it could support the clinical teaching that individuals were doing. I don’t really… [pause] In the teaching realm, they had to make some adjustments. Then, if they were teaching any therapy—like you have asthma, we’re going to put you on this—they were more than happy to unload that to a clinical person who would have more expertise and have more on-the-ground practice.
LR: It sounds like the struggle was then adjusting the curriculum to reflect that change.

DU: Correct. I’ve gone through three curriculum revisions in my life. We can talk about that later.

LR: So… At that time, you were a junior faculty member?

DU: A junior faculty member meaning an assistant professor.

LR: Yes. Did you find yourself able to, in that position, fully participate in those sorts of discussions? I wonder how that dynamic worked.

DU: I was never in faculty meetings shy about letting individuals know where I was coming from.

For instance, there was a faculty meeting where one of our greatest researchers, [Philip S.] Phil Portoghese—he’s phenomenal, still working, a remarkable man—was saying, “Well, you guys are getting NIH dollars. We can’t count that.” I looked at him and I said, “I think my money spends as good as your money spends.” [laughter] He didn’t say anything after that.

It would be that kind of thing. I was sticking up for what we were doing. It’s too easy for individuals who don’t necessarily understand where practice is going to fall back into their camps and just sit there and I’m not going to do this. I’m not going to change. Some of that happens still today. But as individuals retire and we get new basic science faculty, those faculty now have been around pharmacists, hopefully, somewhere, are more accepting of and understand better what we clinical pharmacists are doing.

LR: How, especially as the curriculum began to change, did students respond to clinical pharmacy?

DU: Well… I forget when we actually went to the all Pharm.D. program. I don’t know if you have that?

LR: That would have been 1995.


The lead up to that was that we were admitting more Pharm.D.s, so that would be a four-year program. Then, we still had B.S. students, so we were running two curricula. That was a three-year program. For many years, we ran two curricula. It was very clear that we should be educating individuals who were really at the top of the pharmacy world in terms of Pharm.D.s, in terms of being able to provide patient care, not that you couldn’t go on to a retail pharmacy. Many Pharm.D.s go on to retail pharmacies. I think they’re developing more programs where pharmacists can formally use their education.
There was a point in time in 1995 where we were going to go into the all Pharm.D. program. So, the individuals who were in the B.S. program—I know a few of them—thought that their degree would be discounted. We were graduating Doctors of Pharmacy and they were Bachelors of Pharmacy and thought their degree would be discounted. There were times—I don’t know if I would call it friction—that there was concern that we’d graduate some students and, “oh, my god.” To a lot of them, we gave them an offer if you want to go for your Pharm.D. degree, you can do that. They made decisions. I know two very successful individuals who stayed with their B.S. degree. They just said, “No, I don’t want to go through another year of school.” Their decision was I don’t want to go through another year of school. I don’t know if it’s going to get me any further than what I’m going to get. That switch was made and I guess the rest is history.

LR: Do you think the fear about the B.S. degree being discounted was specific to the University of Minnesota? Or was that a fear felt more broadly in the profession?

DU: Ummm… I really don’t know how to answer that. But I can’t believe that when everybody was making the switch that there wasn’t concern that, oh, I have a B.S. degree and for some reason I’m less of a pharmacist than you are. We all have to go take state boards. We’re all registered pharmacists. It just depends upon what you wanted to do with your degree.

LR: Switching gears a little bit… I’ve seen some brief references to the Rural Pharmacist Associate Program of 1997. But I haven’t been able to find much information about it. I don’t know if you have any memory of what that was.

DU: There was the Pharmacy Rural Education Program, PREP, and, then, there’s the Rural Health School.

LR: It wouldn’t be the Rural Health School. Maybe it would be…

DU: PREP, Pharmacy Rural Education Program. I like being outdoors. I like being out in the community. So, when I went back to the U, Tom [A.] Larson, who is another faculty and still faculty, and I in the college wanted to get more pharmacists out into rural communities. It’s always been a challenge to get pharmacists in the rural communities. So, Tom and I developed a program called Rural Pharmacist Education Program, where we go into a community. I don’t know how we assessed that clinical pharmacy service. They had to be big enough so you could have a clinical pharmacist there. We would set up residencies. Again, we used the model that they would work half time in the hospital, like every other weekend. That would be their salary. They were, basically, making half the salary of a regular pharmacist. The other half of their time, or whatever that would be, at least half, they would, then, be developing clinical pharmacy services in that community. Basically, you’re getting a Pharm.D. out there who has clinical training and Tom and I would help them develop programs. A lot of it started out with education in diabetes management and monitoring. We were in many different places across the state where we’d set that model up. That started in about 1997, it looks to me like my record says.
LR: The education program did?

DU: Yes—actually, 1995, the Pharmacy Rural Education Program. That went through, probably, the year 2000. Is that only five years?

LR: Yes, five years.

DU: I’m looking at my CV here. So, it was five years. At that time, the Rural Health School, through the Medical School, was being developed. What Tom and I were doing with the Pharmacy Rural Education Program fit into what the Rural Health School was doing. It fit very well. Now, we were able to get into other communities through the Rural Health School to help set up programs.

LR: I see. So, those, in some ways, had a similar vision?

DU: Yes, they had a similar vision.

LR: Could you talk a little bit more the Rural Health School—how you were involved with it, how it started.

DU: The Rural Health School was a program out of the Medical School. We used RPAP students, Rural Physicians Associate Program students, who, basically, go out into rural communities for at least nine months and do their training in rural communities. They do everything in a rural community. [Ronald D.] Ron Franks, who was the dean of the Medical School in Duluth, thought that we could expand this program to other professions. I think it’s in 1996, the Rural Health School was formed. It was formed out of money from the tobacco settlement, the Academic Health Center monies out of the tobacco fund. Each program that was participating, like pharmacy and nursing, would donate faculty time. The Rural Health School was open to all of the seven Academic Health Center programs.

I’ll talk about what went on. We had students from the Augsburg [College] PA Program. It was very new. We had students from outside of the University participating in University programs. [College of] Saint Scholastica [Duluth] students, nursing students…I think Saint Scholastica social work students were also involved. What it involved was placing students for pharmacy in the same communities that the Rural Health School was located in. The medical students were there for nine months. We would place a pharmacy student in there for at least—they maybe weren’t there for a year or nine months—six months to eight months. If there were nursing students available, they would participate. If they were available in the community…if they were PA students, they would participate.

It was a ten- to twelve-week session. Therefore, the pharmacy students had to be in there for twelve weeks. We ran it in the spring and the fall. It had six curricular components. We had a kickoff orientation retreat. We brought all the students who were participating...
in from around the state to have a weekend retreat. We had the students do community
service learning projects. We had interdisciplinary case studies. Faculty like Tom and
me or Byron [J.] Crouse or [Daniel G.] Dan Mareck, physicians, were involved. I can
talk a little more about that. We’d have case studies. We would do OSCEs [Objective
Structured Clinical Examination], where I would go in, for instance, and I would play the
role of a patient with a condition. Then, the medical student and the pharmacy student
have to assess me. This was one day a week for twelve weeks that the students in the
community would come together. That was really, at that time, innovative, because, oh,
by the way, we’re taking students from different professions and putting together a
formalized curriculum.

To help facilitate that, the Medical School in Duluth got a Quentin [N.] Burdick grant.
The Quentin Burdick grant allowed us to hire site coordinators. So, in every site, there
would be a person at that site, like at the New Ulm Hospital. There would be a person
there that would be coordinating the weekly activities for the students. Those monies
were also used for ITV [Interactive Television]. This was really early on in the ITV saga.
We actually bought hardware and we placed hardware in these communities so that if a
faculty couldn’t get out to one of the communities to run a case study or to do part of the
curriculum, we would do it across ITV. Then, the monies were also used for getting
students from other programs into it. The ITV back then was very rudimentary and most
of the time, it didn’t work.

[laughter]

DU: Today, it’s much, much better in terms of what we can do with ITV.

We were in multiple communities. We were in Hibbing. We were in New Ulm. We
were in Paynesville. We were in Staples, Fergus Falls, and there might be one or two
other places. Faculty, like Tom and I…on that day of the week, he would go to New Ulm
and I would go to Paynesville. The two physicians who were involved in Duluth…
Byron Crouse, who was the director of the Rural Health School, would go to one site and
Dan Mareck, the other physician, would go to a site. Then, we would have Darrell Block
from the School of Nursing down here. We would try to have one of the core faculty of
the Rural Health School in the community on that day that the students were getting
together so that they could see a faculty member and realize that, hey, we’re invested into
what you’re doing and we’re going to travel to see you. Because we were in those
communities—you go back to PREP—Tom and I then had opportunities… Now that
these communities who probably didn’t have a clinical pharmacist there before could see
we were educating there. We had inroads into getting clinical…maybe the individuals
who were there being hired by the programs and setting it up in the same way where they
would work half time in a pharmacy and, then, half time setting up clinical programs.
Then, those clinical programs would grow. It didn’t always work, but it worked the
majority of the time.

LR: Were students interacting with patients directly? What did that look like?
DU: They would round. Pharmacy students and medical students were there 100 percent of the time. Nursing students, some were there 100 percent of the time. Other students were coming in. For the pharmacy students and the medical students, it was designed so that they would round on patients in the morning. So, a medical student would be with a pharmacy student going on either daily rounds or tri-weekly rounds, however they had it set up. That was the major interprofessional component of it.

LR: With the pharmacy students being there for six to eight weeks…

DU: Actually, they were there for ten to twelve weeks. I have to correct myself. We had to adjust our curriculum to allow the students to be out there. So, they got the same rotation, but acute care was being not done at a tertiary care hospital. The acute care was being done in a fifty-bed or a hundred-bed community hospital. We had to get that approved by our experiential people.

LR: The ten- to twelve-week sessions, did that happen on a recurring basis?

DU: Ummm… We ran it twice a year. So we ran one session in the spring and one session in the fall.

LR: And the rest of that time, the students were doing the clinical work and rounds?

DU: They would do whatever they were going to be doing if they were out in the rural community…whatever the pharmacy wanted them to do at the time.

LR: Was that model something that existed more broadly in the profession, that you would be reading about in publications or hearing about at conferences? How did that idea emerge?

DU: I really don’t know how it emerged. I know Tom and I didn’t get it from some other place.

LR: [chuckles]

DU: From other places doing that, I don’t recall that we were taking that model.

When we first started working in Paynesville, Laura Odell was the person there. She ended up setting up great things in Paynesville before moving to… Mayo [Clinic] recruited her out of Paynesville. She bought in. We said, “We’re going to try to develop this here.” The director of the pharmacy, at the time, and the CEO of the hospital, [William] Willie LaCroix wanted this to happen in their hospital. We had to figure out how to make it happen and that just happened to be a way to do it.

So, I don’t know if Tom and I were the first ones to do that or if it was a model across the country. But it was successful. Actually, the model still is used today in terms of residencies. When the students apply for residencies, which now are very formalized
things, their residency is paid for by actually working in whatever pharmacy doing more traditional pharmacy work. So, that model is very much in use today.

LR: Do you remember any reflections from students or members of the rural communities commenting on the school, its value, things that they found in it?

DU: I can talk about [Daniel T.] Dan Groebner at New Ulm. He was the medical director at New Ulm. He loved it. Willie LaCroix from Paynesville loved it. Not all of the physicians in the hospital bought into the idea. At Paynesville, which was one of our very first, all of the physicians except for one bought into the idea that they could refer to a pharmacist and that pharmacists, like Laura Odell or Todd [D.] Lemke now, could take care of and manage their patient. There was one physician at Paynesville that said, “No. They’re not going to add to anything more than what I’m going to do.” That’s going to happen anywhere you go.

LR: Sure.

I’m curious… It seems that the Duluth expansion in some ways grew out of the same impulse to broaden care and the people involved in care.

DU: Yes.

LR: Were there any formal connections between the programs? Did one program learn something from the other?

DU: The Rural Health School… [pause] I’m trying to recreate timing here.

LR: Sure.

DU: Byron Crouse, who was the director, left in 2001. He went to the University of Wisconsin to start rural health initiatives. I became the interim director in 2001. I was interim director of the Rural Health School for two years. Then, Dan Groebner, who was also a physician, took over for me in 2003. I don’t know how many years he did it. Maybe it was a couple of years. I don’t remember when the Pharm.D. program in Duluth started. It would have to be around…

LR: In 2003, Duluth opened.

DU: Okay, in 2003, Duluth opened. So, that was actually at the end of my term as interim director.

[Rodney] Rod Carter, one of our faculty members, was the faculty point person for expanding to Duluth. We had, through the Rural Health School, a lot of contacts in the community already, the ones that we traditionally had were from the Twin Cities, where you would send students out to rural counties, but, then, we added to the rural communities places they could go where they could actually not just work in a pharmacy
but they could actually see patients. That, I hope, helped, when we expanded to Duluth, the efforts to get more pharmacists out into rural communities. You’re going to get them out into rural communities if, in fact, there are innovative practices out there for them to go to. I hope that we helped plant the seed for some of those innovative practices, Tom and me.

LR: Can you say more about your role as interim director and how that position changed your day-to-day involvement with the Rural Health School?

DU: Well, I was responsible for everything that was going on in the Rural Health School, responsible for making sure the communities were set and ready to go. I did have an administrative person to help me. If we were going to come into a new community, I was responsible for making those contacts with the community. I had an office in the Medical School in Duluth. We had Quentin Burdick money. From the Quentin Burdick money, we always set some aside for somebody if they wanted to do some type of evaluative process in the communities.

I remember a time when a couple of medical school faculty in Duluth came and proposed. It was a psych project, but it was clearly not interprofessional. Everything had to be interprofessional. I turned it down and it caused some friction and tension between those individuals.

I, basically, carried on when I was interim director. I took over Byron’s responsibilities, and carried on, at least maintaining it. I don’t know how much more I was there, because we were pretty much at capacity. I loved going out into the rural communities. I still love to go to Duluth.

LR: I was curious when you were talking about making contacts with the rural sites. Were there any trends in how those communities reacted to the program?

DU: Well, if the Rural Health School went someplace, they knew that they were going to get money. They were going to get a site coordinator funded, not totally funded, partially funded to help organize that. They were going to get ITV equipment. So, there would be not too many places who would turn us down. We had to be really careful to pick the places where we thought it would be successful. Again, in New Ulm we knew would it be successful because they had medical students there, RPAP students, and they had pharmacy students doing other things...Paynesville, Staples, Hibbing, Two Harbors, Fergus Falls.

LR: Were those students who were already there doing residencies?

DU: The students who were already there were College of Pharmacy students. They would have been our students without a degree. The students who participated in the Rural Health School were the students that did not have degree yet. They were still in their final years of training. In the Pharmacy Rural Education Program, those individuals had degrees already and we were helping them set up practices in rural communities.
LR: Okay.

You said a little bit about how in some ways the school had continued to be a model for residencies. But what were the circumstances surrounding the Rural Health School closure?

DU: That was a contentious time. The monies that were being used for the Rural Health School, the Academic Health Center monies, were diverted to AHEC, Area Health Education Center. We don’t have an AHEC. Many of the states across the country have an area health education center. Basically, the model is you’re sending students into a rural area, area health education center. There would be a coordinator there that would coordinate all of the student activities. It is supposed to be an interprofessional activity. This was when I was not the director anymore. This was when the Rural Health School had been, I’ll call it, disbanded, that those monies, then, were assigned to the Area Health Education Center, which was not successful. I don’t know how many years they tried to make it successful, but it was not successful. We don’t have one anymore.

LR: Was this the early 2000s?

DU: That would have been probably the late 2000s.

LR: Okay. Interesting.

I wonder… From your perspective, did the Rural Health School achieve what it was designed to accomplish?

DU: Yes. I don’t know where the evaluations are, but we did extensive evaluations in terms of how it was perceived in the community, how well it worked logistically. In all of the communities we were in, it was a success.

LR: I wonder if we can switch topics a bit—unless there’s anything else you wanted to share about the Rural Health School.

DU: I think that’s good.

LR: Okay.

I’m curious to know about how, from your perspective, the college changed or shifted as Larry Weaver left and Gilbert [S.] Banker’s deanship began. From your perspective, how did Banker’s vision for the college differ from that of Weaver’s?

DU: That was a point in time where I was very much ensconced at Minneapolis Children’s.

LR: Oh.
DU: So, I really didn’t have a whole lot of interaction with Gil Banker. So, I really can’t add much to that. Very clearly, I was in the Marilyn Speedie era and Bob Cipolle’s when he was the dean for a period of time. Larry Weaver came back as a dean after Gil Banker, but I didn’t really have a whole lot of interaction with Gil, because I was over at Minneapolis Children’s.

LR: Just as a point of clarification… I’ve seen some written things about a Save Our School Committee. Were you not involved with that?

DU: No, I did not actively participate in Save our School.

LR: Okay. Interesting.

[pause]

LR: Do you have any memories of Robert Cipolle when he was dean?

DU: Bob and I were Pharm.D. classmates.

LR: Oh. [chuckles]

DU: When Bob was dean—he wasn’t universally accepted as dean—he was really pushing the role of clinical pharmacy and what we could do in pharmaceutical care in the curriculum. He was very aggressively pushing that. It, for sure, got the issues of those days to the forefront of all of the faculty minds. Those were the best of times and, sometimes, the worst of times during that era, until Marilyn came in. [chuckles]

LR: Do you remember what your day-to-day was like at the U during that period of uncertainty as the governing of the college was changing?

DU: It really didn’t affect me. At that time, I was out doing rural health work. I would have my teaching responsibilities. I would have my committee responsibilities. At that time, I was not in an administrative role. So, a lot of what was going on particularly didn’t directly affect me because I was off doing my own thing out in rural communities.

LR: This is, again, jumping back a little bit. I wonder, as the move to an all Pharm.D. program happened in 1995, did you notice much difference in the college as that happened? What were the discussions that were happening among the faculty during that period?

DU: The clinical faculty were all concerned that, oh, my god, we were going to educate all of these Pharm.D.s. What are they going to do? So, there was a cohort of clinical faculty who were not in favor of going to the all Pharm.D. program. They were very much in favor of having two programs, a B.S. program and a Pharm.D. program, running concurrently. That’s where Larry really stepped in and showed his leadership. Those
faculty eventually came around. It took them a while, but they eventually came around, that hey, by the way, this is a good idea. From the clinical faculty, you would think that it would be a slam dunk and everybody would want that, but it was not, clearly not. There were many faculty who were very resistant to making that change.

LR: Can you talk a little bit about that resistance given the number of, it sounds like, Pharm.D.s that were getting jobs at that time?

DU: I would say that many of the faculty who resisted had high expectations of themselves. I’ll put it that it was almost like they were on a pedestal. Here they were clinical faculty. They’ve done great things, were promoted all the way up the line. They couldn’t see the value of having every pharmacist have that much experience. Again, these were individuals who went out and had a blank slate. They went out and they created, they created, they created, they created. Then, as the years go on, all of sudden, you’re graduating people who are looking for jobs. They’re not necessarily looking for opportunities. When we graduated, for many years, it was a blank slate and we went out to make things. People like me and other clinical faculty at the U—there are many that are still there and many that have left—we created jobs. We created jobs for other clinical people. So, we created a job for them that they would come in and they would essentially do a job. I would say that the innovative minds—many students still have innovative minds—were going for a blank slate. They were going in to a job.

Getting back to the change, there were many of the clinical faculty who were against going to an all Pharm.D. program.

LR: Was that something that you were excited about?

DU: Yes, I was always accepting about it.

Some of the barriers for going to an all Pharm.D. program is, now, we needed to have nine months or twelve months worth of clinical sites. When you had a B.S. program, you didn’t have to have that. You had a hospital internship and the community internship. There might have been an elective or two in there. So, they were going into hospitals and going into communities. Now, you had multiple students with Pharm.D. degrees. We had a curriculum for them to go into their advanced pharmacy practice experiences. It took huge resources to switch to that. Bob Cipolle was a major player in that. We actually did not charge tuition for many years for that last year. So, basically, they were paying students or paying student fees. When Bob came along, he said, “Okay, now they’re going to pay tuition for that fourth year.” You can only imagine the first class of students that had to say, “We’re going to have to pay another full year of tuition.” [chuckles]

LR: I’m sure they weren’t thrilled.

DU: As things go on, it’s only a problem for two or three years. After that, people forget that. You don’t have people who are a class ahead of you or behind you saying, “Oh, my
god, you had to do that.” You just have to weather the storm for three or four years if you’re going to make a big change like that.

LR: Right.

You mentioned Dr. Weaver helping to promote that move to the Pharm.D. and him being instrumental. Can you talk about the work that you saw him doing on that front?

DU: I remember him having meetings with us and having very frank discussions about moving forward in that direction and how pharmacy is moving forward and helping the faculty see that, hey, this is a good idea. He had direct discussions. I remember a few meetings where he was, basically, working with us to get us over the hump. Was I reluctant because I was one of the—quote/unquote—Pharm.D.s at first? I must say I’m sure I was a little reluctant but I came around pretty fast realizing that, the things that I did, we can open it up to everybody. The more educated you are, the greater things that you’re likely to do.

LR: From your perspective, is there any tension still surrounding the Pharm.D. degree or is it normalized enough now that it’s commonplace?

DU: Yes, it’s very much normalized. All the programs across the country have Pharm.D.s. It’s a mandated degree. It is normalized. The only thing that’s potentially upsetting that normalization is… There was a great shortage of pharmacists—I was part of the pharmacy workforce group—about ten years ago, fifteen years ago. All of sudden, where we were 83 colleges across the country, now there are 140. I don’t know the numbers, but because of the shortage, all of these smaller schools opened up programs to meet that shortage. Guess what? That shortage is not there anymore and there is a surplus.

Not that this is going to happen, but I’ve had comments or discussions with, for instance, [Ronald] Ron Hadsall, in terms of as you move forward, should we go back to a dual degree, a four-year Bachelor of Science in pharmacy, and those individuals would be working with product mainly, and, then, having a Pharm.D. degree, not graduating, you know, 100 Pharm.D.s. Should we revisit that model? Is there any value in revisiting that model? I think there likely is. I think there’s a role for somebody who would have a four-year degree in pharmacy and, then, have somebody who has an eight-year degree in pharmacy, or a seven–year degree in pharmacy.

LR: Does that relate mostly to that person’s ambition in terms of where they want to go in the profession?

DU: Yes, I would think that. A model could be that you’re in a big retail pharmacy organization, that they would hire individuals and it would be good for them because you wouldn’t be paying them full pharmacist’s wages if they had a B.S. in pharmacy. They would be doing the day-to-day work of getting the product out. They would be more educated than techs [technicians]. They would be able to make some clinical decisions
and, then, having one or two Pharm.D.s in that organization, especially if there’s minute clinics or those types of clinics where you have care being provided within them. So, stay tuned.

[laughter]

LR: There was another thing I wanted to ask you in relation to your time as a student. I wonder if you have any knowledge or would share about Lo Chi.

DU: Yes, Lo Chi.

LR: It’s something that has come up very discreetly and I know almost nothing about it. [chuckles]

DU: Well, the pharmacy honor society is called Rho Chi. If you were in Rho Chi—I was in Rho Chi—you were in the top ten percent of your class. I forget what it was. There was a character—I don’t remember what his name was—who developed an organization called Lo Chi for the people who wanted to party and didn’t get into Rho Chi. So, it was a play on words. They were just a fun-loving group of students who weren’t the top students in the class. It was really a parody on those who were Rho Chi-ers. It really wasn’t much more than that.

LR: Do you know if it was something formal where they would meet regularly?

DU: Oh, yes, they would meet. Absolutely. They would have Lo Chi meetings. I forget the name of the guy who developed it. I don’t know how long it went. It did have a limited lifespan. Those things come up and once the instigator, the leader, is gone, then you have to have likeminded people to carry it on.

LR: Were people in Rho Chi invited to be a part of Lo Chi?

DU: I’m sure they were. I think Lo Chi would take anybody who would like to have a good party.

[laughter]

DU: I don’t think we were excluded. I don’t remember personally going to any Lo Chi events though.

LR: Do you know if they would do academic type things or was it purely social?

DU: I don’t remember at all anything that was academic. Rho Chi would have done academic things, had academic events.

LR: Was it on the radar of the faculty or was it just something among the students?
DU: Faculty absolutely knew that Lo Chi-ers were out there.

[laughter]

DU: It was not hidden.

LR: Okay. Interesting. I’ve seen it here and there, but nothing substantial on it.

Well, we’ve covered a lot of ground today. Is there anything else that you would like to share or talk about before we conclude?

DU: Let me see.

LR: Please, take some time to go through your notes.

[pause]

DU: There are a couple of things. You wanted to know about the DP4 program?

LR: Sure, if you’d like to share about it.

DU: What I know… The DP4 program was the Doctor of Pharmacy Program for Practicing Pharmacists. It was in the late 1990s. Henry Mann was the faculty in charge. Now, he’s the dean at Ohio State. The college, because we were going to an all Pharm.D. program at that point in time, in 1995. We—it took a long time to get this through the faculty—thought it would be a good thing to offer to state pharmacists if they wanted to earn a Pharm.D. degree that we would have an avenue for them to do that. It was set up such that the pharmacists would have to get pathophysiology, how to treat disease, therapeutics. They wouldn’t necessarily have that knowledge. So, there was curriculum around that. I think a lot of that curriculum was online, so they would do online curriculum. Then, they would actually have to go out and do rotations, just like the other students did. They would be excused, if they were a retail pharmacist coming in to get their Pharm.D. degree, of the retail internship of the fourth year…likewise the hospital pharmacists. It was only offered for a few years. I don’t know how many pharmacists took advantage of it. Julie [K.] Johnson was a faculty member in our program and Jason Varin, who now is a faculty member, those two. Julie was a community pharmacist and she came back and went through the program. I thought that was a very good thing that the college offered to the community. One of the faculty’s biggest issues was, is it going to lose money? I don’t think it lost money. I would have known about it.

LR: With the Rural Health School, did you observe any other sort of dynamics with practicing pharmacists? I imagine you saw them all the time, given that you were working in rural clinics.

DU: Absolutely. We came in to their house, if you want to call it that. Tom and I spent a lot of time working with the pharmacy directors explaining what we were trying to do
and what they would get out of it, if anything. We were very cognizant of the fact that, as a faculty member, we were going into… Like New Ulm, they have a director of pharmacy and, all of sudden, you have these faculty members in your place, so we had to work very closely with the pharmacy directors. That gave us an opportunity to show them, boy, if you want a resident, this is how you can do that. By the way, you have these students coming through. You could recruit a resident and, by the way, they’ll work part time in the pharmacy and they can be going out and developing programs for you.

LR: As a clinical pharmacist, you occupy such an interesting place between academics and practitioners. I wonder how do you see the space between them? Or is the space between them maybe not as wide as an outsider might think?

DU: It helps for me, because I was a practitioner.

LR: Right.

DU: And Tom was a practitioner. I could clearly relate. Mine was in pediatrics. I could clearly relate with what would be going on in a hospital. We were in these communities. We weren’t necessarily in retail practices; although, if somebody in a retail store in the community wanted to participate, we would be happy to have them do that. We were practitioners. We knew the practice end and we also knew the academic end. So, I think that brought some credibility to us going out into a community.

LR: In all of your experience in all of these different realms, did you ever consider changing careers or think about leaving pharmacy?

DU: No, never. No. I’m so grateful for all that I’ve been able to do. So… One of the things that we didn’t talk about is I was associate dean of students for nine years and I was grateful to do that. That was a great part of my career, being able to work with students.

LR: We have time if you want to talk about it.

DU: It was very rewarding. Ron Hadsall and I came in and were known as the duo at the college. We came in at the same time being associate deans. He was associate dean for the curriculum and I was associate dean for students, student services. The interactions that I had being in that position with wonderful, brilliant students who were energetic and wanted to go out and do good things was great. It was great. Now, the other side of my job was that there were students who weren’t so great and you had to deal with academic misconduct, students who were not doing well in class…not academic misconduct but failure to meet academic standards. That was the downside of being an associate dean. But the upside was being there with the students. I was dean of students so when there were student events, I would be there with students and interacting with wonderful, wonderful human beings.
LR: Aside from attending events, what else was involved in that position?

DU: I was the person administratively responsible for the Admissions Committee. I was the person administratively responsible for the Academic Standing Committee. That’s where students go, if in fact, there are issues. During that time, the students came forth with an honor code. I supported that. If there was an honor code violation, the first run, if you want to call it, of the investigation goes through the students.

LR: Ohhh.

DU: The students take care of the first run. They do the evaluation. They determine what they think the penalty, if any, should be and they institute it. If the student who was being penalized didn’t like it, they could petition to the Academic Standing Committee. Then, faculty would become involved.

The position was a fifty percent position, so I was doing rural stuff and being associate dean at the same time.

LR: You didn’t have to teach on top of that, did you?

DU: Yes.

LR: Oh, of course. At the Rural Health School. [laughter]

DU: The Rural Health School. My teaching career has been mainly in the pulmonary area. So, when pulmonary comes up, I do it or interprofessional education. That’s the other area that I taught quite a bit in.

LR: Did you have any especially memorable students from your time as associate dean?

DU: Ummm… Yes. Keri Hager. She’s a faculty member at Duluth and she was the head of the student council. Her energy was infectious. Her energy was absolutely infectious. We’re colleagues now. To see her grow up in the college as a student and, now, as a faculty member at Duluth is just really rewarding.

LR: Yes.

Is there anything else you’d like to share about a topic we’ve already covered or anything additional is welcome too.

DU: If I could go back—I think this shouldn’t be lost in the archives—to St. Paul-Ramsey, going back to Darwin Zaske. He worked in the burn unit. He had a relationship with the surgeon in the burn unit. Richard Strait was his name. Burn patients’ wounds would get infected. One of the antibiotics that we would use was gentamicin. That’s the time, again, when pharmacokinetics was starting. They were giving gentamicin in standard doses of like 80 milligrams to these burn patients and they were barely seeing it
show up in the bloodstream or it was going out fast. So, Darwin started studying gentamicin pharmacokinetics. We realized that in burn patients, they got rid of it really fast. So, we were giving four and five times the recommended dosage.

LR: Oh, wow.

DU: That, then, became a standard in the hospital. Anybody being placed on gentamicin would have blood levels drawn to see how fast they would get rid of it.

Well, the issue with that is who is going to draw the blood? The laboratory usually goes up in the morning. They’ll show up at eight o’clock or nine o’clock and they’ll draw the blood from everybody on the floor. Then, they’ll go back down and analyze it. Well, you couldn’t do that with gentamicin. We needed to know… Give an IV over an hour and we needed to have a blood level drawn at fifteen minutes after that was done, at two hours, and at six hours. Okay? They had to be done strictly on time. The lab wasn’t set up to do that. They couldn’t, all of a sudden, drop everything. I’ve got to go up and do a gentamicin level. They would be like popcorn going up to the floors.

LR: [chuckles]

DU: What we did is we had the students on rotations draw the blood levels. When you were at Ramsey, you were there twenty-four hours a day. You would take shifts. If it was done at night, you would be woken up out of the call room. So, the students would be drawing the blood. They did it for years. I don’t know how many years, but for three or four years, our pharmacy students were actually drawing blood from the patient.

LR: That must have been uncommon at that time?

DU: Totally uncommon. It’s totally uncommon now that a pharmacist would ever draw blood. In almost all of the studies that I did where blood was drawn, I would draw the blood.

LR: Interesting. Students were gaining that experience right at the bedside.

DU: That they would probably never use again. [laughter] And complain that they had to stay there over twenty-four hours. That was changed. I think that should be noticed, because it was a time when clinical pharmacy was really starting to bloom.

LR: I appreciate your description of clinical pharmacy. It really helps to paint in very bright colors what it means to be a clinical pharmacist. It’s much different to read about it in the abstract, but to hear your stories is really valuable and really puts it into context. So, I really appreciate this.

DU: Thank you.

LR: Is there anything else you’d like to talk about?
DU: I think I’m good. I think I’ve said enough.

LR: All right. Wonderful. We will conclude there then.

[End of the Interview]