# William F. Liljemark, D.D.S., Ph.D. Narrator

Lauren E. Klaffke Interviewer

# ACADEMIC HEALTH CENTER ORAL HISTORY PROJECT

UNIVERSITY OF MINNESOTA

# ACADEMIC HEALTH CENTER ORAL HISTORY PROJECT

In 1970, the University of Minnesota's previously autonomous College of Pharmacy and School of Dentistry were reorganized, together with the Schools of Nursing, Medicine, and Public Health, and the University Hospitals, into a centrally organized and administered Academic Health Center (AHC). The university's College of Veterinary Medicine was also closely aligned with the AHC at this time, becoming formally incorporated into the AHC in 1985.

The development of the AHC made possible the coordination and integration of the education and training of the health care professions and was part of a national trend which saw academic health centers emerge as the dominant institution in American health care in the last third of the 20<sup>th</sup> century. AHCs became not only the primary sites of health care education, but also critical sites of health sciences research and health care delivery.

The University of Minnesota's Academic Health Center Oral History Project preserves the personal stories of key individuals who were involved with the formation of the university's Academic Health Center, served in leadership roles, or have specific insights into the institution's history. By bringing together a representative group of figures in the history of the University of Minnesota's AHC, this project provides compelling documentation of recent developments in the history of American health care education, practice, and policy.

# **Biographical Sketch**

Dr. William Liljemark was born on December 1, 1941. He grew up in South Minneapolis and graduated from Roosevelt High School in 1959. He then graduated from University of Minnesota in 1963 and pursued graduate studies in the School of Dentistry's joint D.D.S-Ph.D. program. Dr. Liljemark earned his D.D.S. in 1966, completed his specialty training in orthodontics in 1968, and earned his Ph.D. in microbiology in 1969. Dr. Liljemark then pursued a Career Development Award, which allowed him to work with Dr. Ronald J. Gibbons in the Forsyth Dental Center at Harvard University from 1970 to 1971. He returned to the University of Minnesota on a joint appointment in the Dental School and in the Department of Microbiology. Dr. Liljemark served as director of the School's Graduate Program from 1979 to 1988. In 1988, Dr. Liljemark became chairman and then division director of the Department of Diagnostic and Surgical Services. He also served as interim dean and as interim associate dean for academic affairs for the Dental School. Dr. Liljemark retired in 2005.

## **Interview Abstract**

Dr. William Liljemark begins his interview with a reflection on his education and his pursuit of a career in dentistry. He then discusses the following in relation to the progression of his career: his time at the Forsyth Dental Center at Harvard University; his return to the University of Minnesota; and his administrative work. The interview transitions to the broader history of the School of Dentistry, including the following: the increasing emphasis on basic science research within dentistry; the periodontology, oral pathology, and orthodontics programs; research in the School; changes in the School's curriculum and clinical practice; changes in the Dental Hygiene Program; relations between the School of Dentistry and the Medical School; the School as part of the AHC; differences between dentistry and medicine; the manpower and demographic problems in dentistry; the deanships of Erwin Schaeffer, Richard Oliver, and Richard Elzay; the culture of the school; efforts to admit women and minorities; committees in the Graduate School; and relations with the State Legislature. Dr. Liljemark concludes his interview with comments on the need for evidence-based dentistry and student research.

# Interview with Doctor William F. Liljemark

## Interviewed by Lauren Klaffke

# Interviewed for the Academic Health Center, University of Minnesota Oral History Project

### Interviewed in Diehl Hall, University of Minnesota Campus

### **Interviewed on June 13, 2013**

William Liljemark - WL Lauren Klaffke - LK

LK: This is Lauren Klaffke. I'm in Diehl Hall. It's June 13, 2013. I'm interviewing Doctor William Liljemark.

Thank you for meeting with me today.

I'd like to begin with talking a little bit about where you were born and raised and your early education. So you could talk about those things and maybe what influenced you to go into dentistry.

WL: I was born in South Minneapolis and raised in South Minneapolis. I went through high school at Roosevelt High. My parents always said, "You have to go to college." At the time, we didn't have any money. The best place to go was the University of Minnesota. It was cheap, and I could stay at home. I graduated in 1959, and I started at the U in 1959.

I think the first day at the University, I didn't know what I was going to take. In English class, they had s show and tell of where you're from, a meet-the-guy-next-to-you or the-person-sitting-next-to-you, and why you were at the University. I met this guy that graduated from West High School and I said, "What are you going to take here?" "I'm in pre-dent," he said. I said, "What do you have to take to be in pre-dent?" He said, "You've got to take biology, and physics, chemistry, et cetera." I said, "That sounds like a good idea."

LK: [laughter]

WL: So I signed up for pre-dent. I went through pre-dent and got into Dental School and went through Dental School.

I didn't really like preclinical part of Dental School in my first year, but I did a summer research fellowship with a microbiologist in the Dental School. He was a basic microbiologist. He was studying bacterial viruses.

LK: Who was that?

WL: Dwight Anderson.

LK: Okay.

WL: I almost quit Dental School because I didn't like the technique labs very well and the instructors. I thought this is like Marine boot camp or something. I didn't care for it. But I did like the didactic part of it.

Then, they started the combined D.D.S. Ph.D. program that one of the professors had written a grant for at NIH [National Institutes for Health]. I signed up for it. You'd get your dental degree and your Ph.D. and complete a dental specialty. They had a lot of people that went into basic sciences and left dentistry, so the idea of the program was to keep you in dentistry by doing the combined program. I think they have a program going there right now, again. They'd offer you specialty training so that you would stay connected with dentistry and not get lost in your Ph.D. research. That worked out really well for me.

I finished my dental degree and chose orthodontics as a specialty, which really didn't fit with my basic sciences and stuff, because I was in microbiology. So I ended up with a Ph.D. in microbiology and a dental degree, and orthodontic training at the U. I should have probably gone to periodontics, because it had more of a relationship to microbiology than orthodontics, but the periodontal program, at the time, was sort of in disarray, and since I was the first one to go through this program, it was a bureaucratic mess most of the time. The University didn't know what we were doing. The Dental School didn't know what we were doing. Some of the instructors weren't real pleased with us skipping classes and coming back and taking them at odd times and all that sort of stuff. I thought, the orthodontic program is established. You've got to do this, this, this, this, and this and that's it. So that's why I chose orthodontics. I'm not unhappy that I did, because I'm still practicing a little bit.

My Ph.D. was in bacteriophage genetics and electron microscopy. That wasn't going to fit very well with a research career in dentistry. That would have meant going out of the dental field. I had offers to do a post doc at [Die Universität] Basel, Switzerland, or out in [University of California] La Jolla, California, which was really nice. I went out there and visited. Their labs were right on the beach.

[laughter]

WL: So it was pretty tempting to do that.

LK: Yes.

WL: I'd gone to a couple of conferences with some well-known microbiologists that were doing dental research. One of them was at Harvard [University], at the Forsyth Dental Center to be exact. I called him up when I was a graduate student and he didn't really want to talk to me. When I finished my Ph.D., I called him up again and I said, "I've got a Ph.D. in microbiology. I'd like to learn about dental microbiology. I'm a dentist." He said, "Oh, wait a minute." He invited me out there and we sat down in his living room and wrote a Career Development Award, which got funded. So I ended up going to Boston for two or three years on a post doc.

LK: Was this with Ronald [Ronald J.] Gibbons?

WL: Ron Gibbons, yes.

LK: I had that you were an assistant professor at the University...

WL: Yes. I graduated in August. I'd gone out to Forsyth and written this, but it hadn't been funded yet. So it was Erwin [M.] Schaffer who made me assistant professor with a temporary appointment in 1969.

LK: Yes.

WL: Then it got funded. My wife [GayLynn] and I decided let's take a little vacation. We hadn't taken any vacations forever, really. We didn't have any money to speak of anyway. She was a nurse, so we kind of lived off her salary and then the grant money that I got from NIH. So we went on like a six-week ski trip. [chuckles] Ron Gibbons kept trying to find me and he couldn't. Finally, he caught me and asked me, "When are you coming?"

[laughter]

WL: I said, "I guess I better come out there." He had expected me the first of the year and this was in February when he finally caught up with me. We were having a good time and we thought we might as well keep doing it.

Anyway, I went out there and it couldn't have been better thing for my career. It really couldn't have. These people, at least in microbial ecology and caries, dental plaque, periodontal diseases, were the best. They had really, really good people out there in the microbiology program. Some of them were more experienced than others. I met so many people and worked with so many good people out there. That was really a huge lift for my career. Of all things I did, that was the smartest thing I ever did—at least from a career standpoint. Yes, another two or three years without making any money. I didn't

get a real job until I was in my early thirties. I didn't tell the guy out there in orthodontics that I was there. He didn't find out for a year, because I really wanted to do microbiology. Had he found out I was an orthodontist, I would have been recruited to help his very well known program. He found out. Conrad Maurice, he was an old European. Oh! When he found out I was an orthodontist, he just went berserk.

LK: Really?

WL: He said, "You never came to see me!" I said, "No, I didn't." "You don't even go to the seminars." "No, I don't." I really wanted to learn the microbiology because that's what I was focused on. I did end up going to the seminars a little bit when I was there. I didn't dare not to, at that point.

The Career Development Award really was not paying very well. I'd been there two or three years...I can't remember exactly. We had saved some money and we were, basically, gradually going broke living out there. Boston was really expensive.

LK: Yes.

WL: If you have a Career Development Award, you can't practice dentistry. It's against the rules. So I couldn't even moonlight or anything or whatever you want to call it. When I was there, I was strictly doing research. I think if you were born and raised in Boston, you could have found a decent, less expensive place to live. Where we lived was not very nice, and it was expensive. So I said to my wife, "You know, I'd like to stay here. It's really a great environment but..." [chuckles] "If they're not going to pay me, I can't do it."

So we wrote another award, and it got funded. I started looking around for jobs. I interviewed in North Carolina. They didn't really have much of a microbiology program going. Some guy was doing sterilization methods. Then, I went to Connecticut, because they had a big growth and development center there, too. But most of their research was basic. People even in the dental school were doing pretty much basic microbiology research. I had learned a lot from these guys at Forsyth. I went to Maryland and that was a little bit better. I went out to San Francisco but they didn't have anything going.

Then, somebody called me from the University of Minnesota. They had just written... I don't know if it was a contract to do some research on the microbiology of dental caries. I think it was Lars Folke...I can't remember for sure.

LK: Would that have been the head of Periodontics at the time?

WL: Yes. He says, "We need a microbiologist or they're not going to fund this contract." I said, "What do you mean?" [chuckles] He says, "Well, they don't believe any of us know enough about oral microbiology," which they didn't—not much. It was the most unusual thing. I started to negotiate with him.

Then, one of my friends from back here had started an orthodontic practice and he called me up and says, "Do you want to join the practice?" Boy, it looks like I'm going back to Minnesota.

LK: [laughter]

WL: They [the University of Minnesota Dental School] literally, flew me down to NIH where they had done most of the seminal research on these oral bacteria at that time. They'd published it in the late 1960s and continued it in the early 1970s. So I was all part of that. They wanted to know if I could identify these oral microbes. Now, it's a no brainer, but at that time, they were just sorting out what was living in the oral cavity.

LK: Okay.

WL: Of course, I'd learned all that stuff at Forsyth, from those guys. I went down there and the guy actually had a petri of agar placed on the desk and wanted me to go down and identify these bugs. This was a test...

LK: Yes!

WL: ...to find out if they're going to fund this contract at Minnesota. So I went down there and I did it. It was a no brainer for me. I'd been doing it for a long time. The guy obviously must have given the report, "Yes, yes, he knows what he's doing." They funded the grant and I started at the U again. That was just a crazy deal.

The guys at Forsyth—I knew electromicroscopy and had done a lot of that; we published a few papers while I was there—a year later wanted to hire me back. I was really honored, because these guys were really good. I really liked working with them but the money still wasn't there. I said, "Ron, I'd really like to work here but I can't afford to live there." Those people had bought houses in Boston many years before. They had beautiful houses. I couldn't buy a house. I could barely live in an apartment out there. Then, we had, oh, a couple little kids. I thought, I really feel honored that you want me to come back, but I just can't. I stayed in touch with them and I still am in touch with them. Of course, they're all dead now except one. I still stay in touch with my good Dutch friend Hans [Johannes] Van Houte. We talk. He's a character, a smart guy. I learned a lot from him, too. That was a really, really wonderful part of my education. It's a good thing I didn't choose La Jolla or Basel, Switzerland. It really helped.

Then I got back here and started writing grants. I got a research appointment. In those days, the pressure wasn't there to do all the stuff in the clinics. Basically, I taught microbiology and did research. As long as I was getting research grants, they were happy. I guess, you could say I was very successful at doing that. I ended up getting a Merit Award from NIH. I think I'm the only dentist at the University of Minnesota Dental School that's gotten one.

LK: When was that?

WL: [sigh] Some time probably in the late 1980s. Somewhere in there. That was a real honor. My mentor was still at the Dental School. I got the letter from NIH with the Merit Award and I went and showed him. Of course, he never supported me. Even when I went through to get an associate professorship, he wouldn't support me when I got a full professorship. Nothing.

LK: Hmmm.

WL: Then, I got this letter. He didn't think that microbial ecology of the oral cavity was worth anything. He just didn't care. He was into his virus research.

LK: He was in microbiology, your mentor?

WL: Oh, yes. He was a microbiologist. Dwight Anderson.

LK: Oh! Okay, right.

WL: I was up on the eighteenth floor with him. I had a lab up there. He never supported me at all. In fact, he'd tried to throw me out when I was in the associate professorship. The microbiologists voted against me, but the dean said, "That's nonsense." So he overrode them. Otherwise, I would have been back to orthodontic, probably, or went to a different school. I don't know. I didn't have a very good relationship with them after that

### [chuckles]

WL: But I still had to work with those people, because that's who was up there. I'll never forget getting that letter. He'd been well funded also. He had done this sort of research through the National Institutes of Dental Research, and he wasn't doing dental research, but they were funding him. Man, was he mad. [chuckles] A couple days later, he got a letter, too.

#### [laughter]

WL: Then, it was okay. That was pretty funny.

Then the research career, after doing it for thirty-some years, I thought if I write another grant that means I'm going to be sixty-five. I don't know if I want to do this anymore. I think I'll just go practice orthodontics. So I was going to retire in 2000.

In the meantime, I'd gotten involved in some administrative stuff. They reorganized the Dental School and they had made four big departments. I guess I was ready to do something like that. So I applied for that job as department head as long as I could keep my lab and my lab going. I got that job. I'm trying to think when. Probably in 1988, right around when I got my Merit Award. Well, I'm good for ten years. I've got a ten-

year grant now. I can probably do some of this administration. So I did for about ten years. That was interesting.

What had happened is—I've got to say it right—the dean that supported me for my associate professorship... It was Dick [Richard C.] Oliver. They just gave him a big honor recently. I don't think he supported dental specialties very well. He kind of let the Orthodontic Department and Oral Surgery Department drift, I would say. That's a nice way of putting it. He really didn't fully support it, I don't believe. At least, that's my perception. I watched this, because I had friends that were teaching in the Ortho program and the Oral Surgery program. It used to be, like in the 1970s, really good. Then, it just sort of drifted out. I thought, well, maybe I can do something about it. I think that was the motivation for taking that department chair, to try and rebuild the Oral Surgery and Orthodontic programs. It was really stellar in the 1970s. They were on the cutting edge of all this stuff. It was interesting from the sidelines watching all of this stuff happening. I can't remember when Oliver... I think he was dean until 1987 or 1986.

LK: Yes, 1986.

WL: Then, they reorganized the school. I thought those two divisions, for what reasons, in my view, were not up to speed. Rebuilding these programs was my goal in taking that job. It was a struggle. [chuckles] It wasn't easy. I started with Oral Surgery, because they were right down the hall. The administrator at the time wasn't even an oral surgeon, I find out. Now I thought, this can't work.

LK: Yes.

WL: I was good friends with him. He was an oral pathologist. I said, "Mark, you can't be the head of this department or division. I'm sorry." He got pretty upset. He resigned and went down to [the University of] Iowa [College of Dentistry] and started a B&B.

LK: Mark who?

WL: [Mark T.] Jaspers. A nice guy. His wife [Nancy] actually worked for us in the practice for a while. A nice guy, but he just didn't understand. He'd been doing the administration of the department for the previous chief there, basically running the department but, you know, it didn't make sense to me. Anyway, that was my opinion.

I hired a guy named [James Q.] Swift who is still there. It was tumultuous, but we got it done. He did a really good job.

The person running the Orthodontic program was getting older and kind of a cantankerous guy, Mike [Michael T.] Speidel. I like Mike, and I still get along with Mike. He went to law school. I think he was kind of tired of the whole orthodontics program.

LK: Hmmm.

WL: He was a division head. I didn't get very far with that. But I was able to hire a couple more faculty into the program, so that helped some, but there wasn't much more I could do. So I quit being department chair.

I was getting older and I thought, ah, I'm just going to practice. I've been doing this for thirty plus years now. I don't know if I want another grant or not. I still had substantial funding from 3M.

LK: Yes.

WL: Over the years, my lab had evolved. I went to the dean. I think it was [Richard] Elzay. I don't remember. It was either Elzay or just before [Peter] Polverini came. I was going to put in a phased retirement. Then, Mike Speidel, the division chair of the Orthodontic division decided he was going to retire. They said, "We need a division head." I said, "No—oh, okay."

LK: [chuckles]

WL: I went downstairs to the orthodontic division. I kind of closed up the lab, said, "Goodbye," to all my employees. We all kind of agreed that was okay, that I was just going to do that.

So before I could retire, they hired me to do this division director job. Elzay retired and they hired Peter Polverini. He was a research guy, but I didn't really talk to him a lot. We got along. I told him, "We need some help rebuilding the program." Mike didn't want to deal with the Dental School. Dean Oliver had pulled some funny stuff on them. They had an intramural practice and he was taking part of their money and funding other parts of the Dental School.

LK: Mmmm.

WL: There was a big rift between Orthodontics and the rest of the Dental School. Orthodontics made a lot of money for the Dental School and then their private practice internally did, as well. But they would take a cut of it. They didn't give it back to Orthodontics—at least that's what I was told.

So they moved the intramural practice out of the school. [chuckles] Polverini actually helped me. He was a really positive guy about rebuilding the Orthodontic program. I didn't have the fear of the Dental School that Speidel did, you know, because I had been through all that stuff. There was a guy getting his Ph.D. named John [P.] Beyer who really helped me a lot, a really smart guy. We did a lot. We got that program going.

Since I hadn't been board certified, the rules on accreditation were you can't run a division in an accredited dental school unless you are a board certified orthodontist. I hadn't gone through that. I was doing research.

LK: Right.

WL: My time was running out on that deal. I needed to hire somebody. There was a guy that used to come up. He used to work down at the Mayo [Clinic, Rochester, Minnesota], Brent [G.] Larson, who is still running the program today. I wanted to hire him really badly, because he's really a good guy. He's done a wonderful job since I left. But I just couldn't get him to do it, because he was making too much money on the outside. So I hired two more people. So we had a really nice group going in the division.

But I couldn't find a division head. [chuckles] So we started looking around trying to find somebody. It just wasn't working out. Then, Polverini resigned and one of the people that I'd hired back in the 1990s, Pat [Patricia M.] Vayda, she says, "Why don't you be dean?" I said, "No! I'm not going to do that! I'm trying to retire, Pat." She's part of the practice now. She's great. She actually got my job as a department chair. So she encouraged me to send in my CV [curriculum vitae] and all this stuff to Frank Cerra. So they needed an interim dean. [chuckles] I was still doing the ortho stuff and the next thing I knew, I was interim dean, because Frank wanted me to be interim dean. I said, "I'm kind of an academic guy. I'm not a dental clinician by training." Of course, he could see on my CV all that stuff. So I ended up being interim dean for about a year.

The advantage of that was I got to finish doing what I started in the late 1980s. Now, I can hire Brent and give him enough money to take over the job.

LK: Yes.

WL: And he did. So I was really happy about that. When the new dean [Patrick Lloyd] came, I was going to leave.

Then, they didn't have an associate dean for Academic Affairs.

LK: Okay.

WL: They said, "You've to do that." I says, "Oh, okay." [chuckles] So I did that for a while. I don't even remember how long I did that, probably over a year.

Anyway, five years later, I did retire.

LK: Was that five years after you initially wanted to?

WL: Yes.

LK: [laughter]

WL: So the good news is they didn't want me to retire so I've got to feel good about that.

LK: Yes.

WL: It was actually a very interesting five years. I met a lot of interesting people, found out a little bit more about how the school worked. It was nice. I haven't regretted it at all. Then, Frank said to me, "Why didn't you apply for the deanship?" I said, "Frank, I'm too old. It's too busy. I was out every night. I was doing stuff on the weekends. If I was ten years younger, I might have."

I see him at the health club every once in a while. He's retired, too. The first time I saw him after I retired, he says, "Well, how's life outside the University?" I said, "It's really good. You're going to like it." Then, when he finally retired, I think a year or two ago, I saw him and he says, "You're right. It's all right."

[laughter]

LK: He's actually the one who put this whole project together.

WL: Frank did?

LK: Yes.

WL: We got to be very good friends. I see him in the locker room once in a while. He's a character, an interesting guy. Anecdotally... He was shaking his head one day when we were in there. He said, "I couldn't find my keys." I said, "Don't worry about it. You're not losing it. I'm a couple years older than you, and it happens all the time." He says, "Do you know where I found them?" I said, "No." "There were on my arm."

LK: [chuckles]

WL: I said, "It's okay." So I told him a little neuroscience story about how your synapses slow down when you get older. He says, "I like that one." So we chat once in a while. He's a character.

LK: Yes.

WL: I always liked Frank.

LK: I'm going to backtrack a little bit.

WL: Yes, go ahead. That's my story, and I'm sticking to it.

LK: Okay. [chuckles]

I wanted to talk to you a little bit more about the Ph.D. training program that they initiated and you were one of the first students...

WL: I was the first one to graduate.

LK: The first one to graduate. Okay.

WL: I think in the country...I'm not sure. They had a post D.D.S. Ph.D. program before that

LK: Yes. That was the one that Robert [Bob] Isaacson...

WL: Isaacson did this one, as well. He and Dick [Richard] Stallard graduated from that one earlier. I don't remember who ran that program. He graduated from it and, then, he wrote the D.D.S. Ph.D. one, but it was a post D.D.S. grant that he and Stallard were on. I think it was a biochemist that ended up out in California. I can't remember his name right now...Johnson? [Given name?]

LK: I don't think I have who went through with Isaacson.

WL: Dick Stallard.

LK: Okay.

WL: Then, there was a guy that did a biochemistry one. I can't remember his name, a good guy. I think he ended up out in UCLA or something.

LK: Was it Richard [R.] Bevis or Alfred [Marshall] Fenstad?

WL: No, Bevis was in the same group as I was. Myself, Bevis, and Marsh Fenstad were the first three to start that D.D.S. Ph.D. program. Isaacson was the one that recruited us.

LK: I have that he was running the Orthodontic program as you guys were going through it.

WL: After he finished his post D.D.S., he was the chairman of the Ortho division. He had a Ph.D. in anatomy, Isaacson did. He was very interested in research, and he could see that the Dental School needed...or the whole dental community really needed to get more involved in research. Period. I wanted to go into microbiology, and Bevis wanted to go into anatomy, and Fenstad went into physiology. At the time, you had to do it through those departments in the health sciences. Now, I think it's just through oral biology. Isaacson and Stallard and I think his name was Johnson in biochemistry and Morrie Meyer in physiology. They got their Ph.D.s post D.D.S. Isaacson could see that around the country, these people that were getting a dental degree and, then, going into basic sciences, they were losing them to the basic sciences. They weren't staying in dentistry. Stallard did and so did Isaacson, but a lot of the other guys didn't. The NIH was losing. You had trained dentists and then you had Ph.D.s that had nothing to do with dentistry anymore. I don't know whose idea it was, but I know Bob wrote the grant. The

timing, for me, was ideal because I would have probably just gone into microbiology and quit Dental School.

LK: Oh. He had discussed in the book that the original idea for this had been something that William Crawford was working on for a number of years.

WL: Yes, I think he started the idea of having postgraduate education other than specialties in the School of Dentistry. Yes, I think that was probably true. Crawford was still dean, maybe, when I started at the school in 1961. Schaffer took over, but I think Crawford was still the dean. I know Crawford set up Dwight Anderson upstairs. He wanted research in the Dental School, so Dwight was fresh out of the microbiology program here. He got a job in the Dental School, and I know Crawford set up his lab, gave him money to start it, and all that sort of stuff, and then he took off from there. I think shortly after that is when I did that summer fellowship with Dwight and got interested in research, you know between my first and second year in dental school. I really enjoyed that. That got me started. I think that's correct. I think Crawford was the main push behind it. I don't know who wrote the grant for Isaacson and those guys. He was the main push; I'm sure that's true.

LK: Just from how you told your story, it sounds like in the 1960s and 1970s, the school was very heavily research oriented.

WL: Oh, yes, in the 1960s and 1970s it was. In the 1950s and early 1960s, it wasn't. I think Crawford was the impetus to get it started, and I think Schaffer continued along those lines. Then, they hired people like Stallard to run the Perio program and Isaacson to run the Ortho program. I don't know how Isaacson ever got into orthodontics, to be honest with you. He did as an anatomist. An anatomy Ph.D. and orthodontics go together pretty well. Stallard was an anatomist, and he was in perio and that doesn't go together as well. It's sort of like me in microbiology and orthodontics. It doesn't really go that well together; although I did a few projects with some graduate students in orthodontics.

Isaacson was the main impetus in the first training programs like that. There were quite a few people that went through there but we still lost a lot. Bill [William] Davidson, we didn't lose him. There were a few other guys that we didn't lose, but we lost a lot of people. I remember one of the guys that went out to Wyoming and practiced. He did his Ph.D. prelims in anatomy, finished his ortho program, and out he went, didn't even bother with his thesis. Even so, those combined programs worked. They were probably better than the post D.D.S. Ph.D. programs, but they still weren't attracting enough people. I still believe part of the reason is the money. In those days, the salaries were pretty meager in terms of going through the Dental School and, then, looking at your classmates out there with nice houses and cars and you don't have anything. So you had to be pretty dedicated to stay with it.

LK: Would you say that the push for more research was part of a national trend?

WL: Yes. Oh, no doubt about it. NIDR [National Institute of Dental Research]—NIDCR [National Institute of Dental and Craniofacial Research] now is what they call it—yes, their budget kept getting bigger and bigger. There was a lot of lobbying for that. So there people that were definitely more interested... It's not to say that the dental schools weren't doing research, but it was pretty clinical. They wanted to get more into the real sciences stuff instead of just doing clinical research. There was plenty of clinical research going on.

I remember getting slam-dunked one time during that first summer fellowship with Dwight. There was a periodontist there, Norm [Korn]. I remember I said to him, "Do you guys ever do any research?" Oh, my God! I thought he was going to blow his stack.

[laughter]

WL: He was a good guy.

There was research going on but it was pretty clinically oriented. In the late 1960s and early 1970s, you're right. [sigh] Who pushed that? There was a national caries program, another one in perio. There was a lot of emphasis out of NIH that way. Of course, that just fit perfectly with what I was doing.

LK: Right.

WL: Always the timing... There's a lot of luck involved in some of this stuff. The timing for me was ideal. Everything just sort of fell together, you know. You kind of make it sometimes, but things that you have no influence over sometimes happen, so there's a little luck involved.

LK: Yes.

I was wondering if you could talk a little bit more about when you went into orthodontics. You said you had thought about Perio but the department...

WL: Well, the department, at that time, it wasn't very well organized. I had just gone through two or three years of mayhem because this D.D.S. Ph.D. program was brand new, so there were people in the Dental School that didn't know what we were doing. People in the graduate school and the University in general didn't really know. At one time I was enrolled in the Extension Division, the Graduate School, and the Dental School.

LK: Oh, wow.

WL: Well, that's confusing.

LK: Yes, and a lot of paperwork.

WL: I was taking French in the Extension Division because I had to have a language, and then German. Then, I was taking courses in the Graduate School for microbiology, and I was taking courses in the Dental School. It was like the University didn't know what I was doing. I had thirty some credits sometimes. It was nuts.

LK: Yes.

WL: Then, I'd skip a class in Dental School. I remember not taking pharmacology but taking the boards and passing it.

LK: Oh, wow!

WL: They don't let you do that anymore.

[laughter]

WL: Well, I was good at taking multiple choice tests. I didn't do stellar in it, but I passed it. Then, I had to take the course to graduate from Dental School.

The rationale there was just simply that the Perio program wasn't very well organized at the time. They were just reorganizing it. It turned out to be a very, very good program, but at the time, it wasn't. The Ortho program—Isaacson was running it—was all set up and ready to go.

Bob [Robert J.] Gorlin almost talked me into pathology. I really liked oral pathology. I did well in general pathology. I was very interested in it.

But a friend of mine, Jack Grewe, who ended up out in Maryland, did the post D.D.S. thing. He stayed with it. He said, "You can't make any money in oral pathology. Go into orthodontics." I was fretting about what to do with my specialty training at the time. So he was a big influence on sending me to ortho. "Just tell Bob you want to do orthodontics." He'd gone through pathology and found that out and he went back and went through orthodontics. Anyway, he ended up running an orthodontic program out in [University of] Maryland [School of Dentistry] for several years.

That was the main thing. I really wanted to go into perio. It was better organized when I came to the school back from Boston. Those were the people that had the grant.

LK: Was that when Carl [L.] Bandt was head?

WL: No, that was after. Carl was later. I don't know if Folke was running it or Stallard, at the time. No, Stallard wasn't running it at the time. Folke was running it.

When Carl took over, he did a nice job. He really built a good department, really good. I still see Carl. He's a good guy. He really made that. I would say Carl is the guy that really made the Perio Department really good.

LK: I wanted to interview him, but he didn't...

WL: He didn't want to?

LK: Yes.

WL: I'll talk to him.

LK: [chuckles] Thank you.

WL: I've been going to the Guthrie with him for forty years, with him and Mary [Mrs. Carl Bandt], so we're good friends.

He did a really nice job. He hired the right research people. He hired the right clinicians. It took him a while, but he did. He did a really nice job. The Perio Department turned out to be really stellar. My hats off to him. We had grants together, too. We'd butt heads a little bit, but we got it sorted out.

LK: I saw that you had a grant with him in the late 1970s on microbial etiology infection.

WL: Yes. That's when the caries thing was winding down and perio was just starting up, so it was easy for me to switch from caries to perio. I had done most of my ecology research in dental caries and, then, they switched to all these anaerobes, and gingival crevice, and all the perio stuff. It was, more or less, a continuum for me. So I could continue doing basic microbial ecology research but with a perio emphasis instead of a caries emphasis. Before, we were just looking at this plaque and, then, we were looking at the plaque underneath the gum. It was an easy continuum.

Yes, we had some grants and it worked out.

LK: Your early research was about bacteria adhering to the teeth?

WL: Right. That was the big push. Why does plaque stick to teeth? So that was the main emphasis of my research out at Forsyth. Those guys were in the forefront of that. Being an electronmicroscopist, I could show the physical structures that actually attach to the salivary pellicle that adheres to the teeth. It was actually attached to that. It wasn't just sort of saliva glue that held them on; although, a little bit like that.

LK: [chuckles]

WL: At any rate, that was right down my alley.

LK: I also saw that you had found more accurate indicators of caries susceptibility?

WL: Well, yes. We had a big study with one of my graduate students—well, actually, he wasn't my graduate student. He did his research in the lab. I wrote the grant for him. It was a contract, actually, with NIH in the 1970s. Jim [James W.] Swenson. We were looking for caries indicators because streptococcus mutans was the big bug of choice at the time, and still is kind of. We went out to the Roseville [Minnesota] schools and we had like four grade schools. The project ran over...I don't know, three or four years. He wrote his thesis on it. He went to South Carolina and didn't like it, and came back and went to pedodontics and practiced. So it's another loss. We had a big conference out on Saint Simon's Island [Georgia] with the results and all that sort of stuff. Yes, we were just looking for it and, as it turns out, it was one of the first ones. Everybody suspected that that find was really important, and it was. That was a big clinical thing. I didn't really care much for that but he did all the work.

LK: Okay.

WL: He was going to do mercury because he was an epidemiologist. He was going to do mercury poisoning. I said, "You'll never get anything done there."

LK: I don't know if I have this wrong, but were you the first to use radiolabeled microbes for oral microbiological studies?

WL: Yes.

LK: Okay. Was that something that came out of your basic research in microbiology?

WL: Yes. I developed the assay that everybody used for years and years and years.

LK: In looking at oral pathology?

WL: It's to be able to track stuff. You could label a bug and then you could recover it in an in vitro system, obviously not in somebody's mouth. Yes, I developed the assay and then Gibbons used it a lot. I'd done all this research with bacteriophage. When they infect the cell, what happens to the RNA [ribonucleic acid] and DNA [deoxyribonucleic acid] cells? So I was using radiolabeled compounds in my basic research, so I just switched it and said, "Hey, this would be a good way to do in vitro studies, label the bugs, and you can count them, and find out how many stick, and how fast they stick, and all this other stuff. That assay, I don't know, that was used for twenty, thirty years.

LK: Wow.

WL: Different variations of it, but the same principle. That was a pretty important one.

LK: Yes. Very cool. [chuckles]

I know you said that early on your time was mostly divided between research and teaching.

WL: But mostly research.

LK: Mostly research, okay.

WL: The only teaching I did is I taught some of the microbiology courses to dental students. For a research individual at a dental school, I had a good job.

LK: Yes.

I interviewed Burton [L.] Shapiro.

WL: He was one of the post D.D.S. guys.

LK: Right. He talked about how free he was to do research.

WL: Yes, yes, we were. There was that time. Then, you know, the budget stuff started hitting and people were required to do more clinical stuff. When we'd hire people in departments, we had to fight with the Administration to give them at least two days or three days of research. They didn't want to because of budgetary reasons, so it was becoming way more difficult to do a research career in the Dental School, and I think it still is.

LK: I've heard mixed things about the profitability of the dental clinics.

WL: Well, I always thought that the medical model was probably a good one and that we were terribly inefficient in the Dental School. When I became interim dean, there were big budget issues at the time. I pushed all the divisions and departments to try to streamline them. When I took over Ortho, I doubled the gross [income].

LK: Oh, wow.

WL: I think that was another reason Cerra wanted me to be dean.

[laughter]

WL: It was easy. I just said, "You're only taking thirty-five new patients. Take seventy for each of these students. They need the experience." That meant expanding everything. Everything had to get bigger. I tried to push all the rest of the divisions to do that. When I went to Dental School, we did two or three times as much dentistry as the dental students today.

LK: I thought I heard that the requirements changed.

WL: The requirements went way down. They used to do it by numbers, which probably wasn't intellectually a good idea. You had to have so many surfaces of fillings and blah, blah, and so many gold crowns. We did like fourteen dentures. I think they only do

one, now maybe. We really had to work hard. The funny part is we didn't go to summer school, and we got it all done.

LK: Wow.

WL: I kept thinking in the back of my head, there's something wrong down there.

LK: [chuckles]

WL: We had to use a slow speed. I took my boards with a belt driven slow speed hand piece. We didn't have high speed, and we still did all that dentistry. Now, they've got all this high-speed stuff over there, and they don't do a third of what we used to do.

LK: Wow. Why do you think that's changed?

WL: Ummm... I don't really know. It's just the way the clinical people want competency-based dentistry. I don't know. The system prevented it from happening. I think a lot of patients got abused a little bit the way we were doing it, because we'd trade. You need this? Here take that one. Call her up. Take that one. Well, you can't do that. You take a patient, and you treat the whole patient instead of piecemealing it. So there was a lot of piecemeal dentistry going on when I went to school.

LK: To get the numbers?

WL: Yes, to get the numbers. You said, "God, I need another gold foil." Here's one. So you'd call them. There was no continuity in treatment. They might have needed a bridge but if everybody had their bridgework done, they never got the bridge. I think the evolution of the numbers going down was because of trying to treat the whole person, instead of just a tooth here and a tooth there. I think that's what inhibited... Probably intellectually, it's a better idea, but economically, it was a disaster.

I didn't touch the undergraduate things, but I really pushed the specialty trainings to up their...give them more experience!

[chuckles]

WL: Some of them would and some of them wouldn't. Then, I found out that, in the end, I don't think the Medical School model will work for the Dental School. It's just too inefficient. So I was wrong there. It worked for some isolated places like Orthodontics and Oral Surgery and Endodontics. Perio, I could never get them going. Pediodontics, no. So I was wrong in thinking that. I just had these ideas that, hey, people make money out in dentistry. Why can't we make money at the school? I kept thinking about the way we went through it. We did a lot of dentistry. They don't do as much. They're competent, but they don't do the numbers we did. You look back on it and you think, well...there were a lot of people that probably didn't get treated.

We loosened the system up a little bit, because students were having a hard time getting the requirements done with the new system. I said in the clinics, "You've got to let them swap patients. You've got the treatment plan going, but..." They weren't getting their requirements done. You'd get a patient that doesn't come in or isn't cooperative or whatever, and then, they're all crowing that these students aren't finishing and they've got to do extra work. No. You've got to loosen it up a little bit somehow, and I think they have. I think the clinics could be run more efficiently and they maybe are now. I don't know. I haven't paid attention for several years.

LK: I didn't know if you had any comments or personal experiences on relationships between dentists or dental faculty with the Dental Hygiene or Dental Assisting faculty or Dental Assisting or Hygiene students.

WL: I taught a few classes in Dental Hygiene. Dental Assisting, I didn't have anything to do with.

LK: Okay.

WL: The Dental Hygiene School kind of ran its own deal until they finally pushed it into Perio, which made sense. Then, they became more connected with the Dental School. It was really pretty separate.

LK: When was it pushed into Perio?

WL: Because that's what they do.

LK: But when?

WL: [pause] That's a good question. Probably during Bandt's administration when he was running the program

LK: Okay.

WL: They made it more academic. There's lots of dental hygiene schools around the state...a year of Normandale [College] and two years of training, so they are two- or three-year programs. So they beefed the one up at the U to make it a four-year program. Now, they even have graduate programs to train teachers and researchers. That made sense. I didn't have a problem with that at all. Kathy Newell and I still are good friends.

LK: I talked with her. She was a good interview.

WL: Yes, she's a nice gal. I really like Kathy. I always have.

LK: I don't know if you have any comments on the financing of dental education and how that changed over the years, particularly after the 1960s and 1970s.

WL: Dentistry is an interesting thing. It isn't part of the Affordable Care Act—not much. So somehow, dentistry is, even to this day, separate from medicine. It's really not separate. Out East, they have a degree called a D.M.D. degree, Doctor of Dental Medicine. Like at Harvard, when I was out there, the dental students, graduate students, and medical students all took the same classes. They sort of did that a little bit here, but administratively speaking, there was a feeling amongst a lot of dental administrators, it was hands off from medicine because of the big gorilla. Medicine was the big gorilla. It would just take over. All those deans, it was always hands off of dentistry. I think over the years, this pushback from the Dental School... They didn't cooperate well with the health sciences as much as they should have, and I think their budgets just got cut more.

LK: Oh.

WL: I think Elzay started to... He ended up being an interim vice president of health sciences for a period of time. I don't know if it was French that was still there or whatever. Elzay took that job over and that was the first real big job that a dental guy had over in the health sciences. This was an interim job, like my deanship was. He did that for a year or two, I think. Then, when he retired... I think the movement towards the Medical School was happening with Elzay. Then, Mike Till got to be dean, and he stopped it, pretty much. He was one of those guys that was a hands-off type. Then, when Polverini came in, he started to develop it. When I talked to Cerra, we got along fine. I said, "We need to be part of this." That was my attitude. I don't know if the dean that took over after me... I don't think so, because Cerra made a comment in the locker room one time. He said, "You know, he's starting to listen."

[laughter]

WL: I don't know about this new guy [Leon A. Assael]. I don't even know him.

I think that's part of it. The Dental School was afraid to become part of the Medical School or the medical thing just because they think they'd get trampled on by the big gorilla, you know.

LK: Yes.

I was going to, actually, transition into talking about the Academic Health Center and the health sciences concept. Would you say that how integrated the Dental School was in that AHC umbrella depended on the dean at the time, the leadership?

WL: I believe so.

LK: Okay.

WL: Definitely. Obviously, Vet [Veterinary] Med is on the other side of the world... There was certainly a lot of cooperation that could have been made with Pharmacy, could have been made with the Medical School, obviously, and even Nursing. It just didn't

happen. I think there have been some forays into trying it. I don't know if the Dental School still takes classes with the Medical School or not, but they tried it.

LK: I don't think they still do.

WL: It's a hard one. Dentistry is a big economic force, not like Medicine, in the country. There's billions and billions of dollars. Somehow it has just stayed separate. Even in the Canadian system, dentistry is not part of their system.

LK: Hmmm.

WL: It's difficult to get into a Canadian dental school. Many don't want to go to medical school. I think it's harder to get into a dental school than it is a medical school now.

LK: Wow.

WL: I interviewed these students, two rounds, when I was at the end of my tenure here and it's like, wow. Oooh! I know there's people in my class that would never have gotten into dentistry. It's not because they didn't turn out to be good dentists, but their academic performances compared to the students I was seeing were amazing. I probably interviewed forty or fifty students and maybe one of two of them wouldn't make it. They were really sharp, mature sounding, came across really well in interviews and all the stuff I read about them. My god, that's way different than when I started. The dental applicants now are just outstanding people in terms of how they've done academically.

LK: I was talking to Ralph DeLong the other day, and he made an interesting comment about some talk—I don't know what level this was on—about integrating some of the basic general practitioner care into dentistry because dentists see patients more regularly than maybe a person would go to the doctor.

WL: Well, there's always been that out there. It's just never happened. You know, they do Botox now.

LK: Dentists?

WL: Yes, some do.

LK: Wow! I didn't know that.

WL: They pick and choose what they want. Some of the oral surgeons do plastic stuff. The oral surgeons were the most frustrated because a lot of them went through medical school and then oral surgery.

LK: Ohhh.

WL: They go through dental school, medical school, and oral surgery. They do that at Mayo. They don't do it here. In a lot of schools, they get their M.D. degree as well as an oral surgery degree.

LK: Wow.

WL: That sort of happens. But the general practitioners, nahhh, not much.

[brief extraneous conversation]

WL: That concept has been around for a long time. The Oral Medicine Department at the U... Nelson Rhodes pushes that a lot. He's right. He's trying hard.

Dentistry is really different than medicine in one big respect and that's when you go to medical school, you don't do any clinic. You do rounds, follow instructors around to see patients and so forth, but you, personally, don't do anything. You take basic science classes and so forth. That's what they've got residency programs for. That's when you learn how to be a doctor. That's when you learn how to treat patients. You don't learn how to treat patients... You learn the concepts and you learn a lot about treating patients, but you don't ever do it until you're out of medical school. You graduate from medical school before you've treated anybody. Dental students are supposed to go out of dental school and start treating patients the next day. What happens is the dental curriculum is very clinically oriented because it has to be. So the first two years of dental school are just hell because you have to take all the basic sciences, and you have to take all the technique courses, and they try and get you into the clinic as fast as they can to get the experience, because when you graduate, you don't go to a residency program. You go join a practice and start working on people. You're working on people all the time you're here. It's a lot different, and I think that's why there is a pushback with medicine.

I was a two-year wonder. I got into Dental School after two years [of college]. You can't get in after two years anymore. Theoretically, you can get in after three years, but ninety-five percent of the students already have a bachelor degree. It's an eight-year program now, just like medicine, except that when you're done with eight years, you're supposed to go out and practice; whereas, in medicine, it's another two or three years.

LK: Right.

WL: If you go into a specialty, it's the same in dentistry. It's different than medicine in that way. I think that kind of keeps us separated in a way, because it's so clinically oriented while you're a student.

LK: I've never thought about it that way.

WL: You need to learn how to do all these techniques. You need to actually fix teeth.

[chuckles]

WL: Hands on.

LK: Yes.

This transitions as well into what I wanted to ask you about next. I'd seen a lot in the Archives in meeting notes of the Dental School administration talking about the growing need for dentists, the dental shortage.

WL: Oh, I fought that for so many years. [sigh] I'll give you my opinion.

LK: Yes.

WL: I told Dave [David O.] Born if he ever said there was a shortage of dentists again, I'd wring his neck.

LK: [chuckles]

WL: There's no shortage of dentists. There's a demographic problem in that it's hard to get people to go to Baudette and practice dentistry or Thief River Falls. There are so many dentists and specialists in the Twin Cities that it's insane. There might be an access problem for—we take all kinds of medical assistance—for poor people or something like that, but I don't think so. We're orthodontists. I'm an orthodontist. We see all kinds of medical assistance people. In the greater metropolitan area, I guarantee you there's no shortage of dentists. Claudia [L.] Kanter...I said, "Let's do this. I'm going to shove this in Born's face because he keeps pushing for more and more dentists. There's not a need for more dentists."

LK: What years were you making this push?

WL: From the mid 1980s until I got done. But I didn't have any say so until I got to be dean.

[laughter]

WL: Starting those clinics in Hibbing and Willmar are a good idea, you know. It's nice. It's good for the students. It tries to get them out there. They did the experiment in the 1970s. They expanded the class really big.

LK: Yes, that's right.

WL: So dentists were going out practicing hygiene because they couldn't get jobs. It didn't work. That was the big experiment. It didn't work. David Born never got...to this day, I don't think he still believes that. I fought hard not to increase the class size, but what that means then is your budget doesn't get as big. So it's an economic problem.

LK: Right.

WL: I just talked to a gal yesterday in my office that I treated several years ago. She said she was going to dental school. I said, "Where are you going?" She said, "Midwestern University [College of Dentistry]." Have you ever heard of it? It's in Oak Grove, [correctly Downer's Grove] Illinois.

LK: I haven't.

WL: I haven't either. I said, "There's a dental school there?" I know there's one in Nevada, and I know there's one in Arizona that started, and there's one in Florida. I hadn't heard about this one. I said, "How long have they been open?" "They haven't graduated their first class yet."

LK: Oh.

WL: They're like three years into it. So I looked it up on the Internet. I asked her, "Why did you choose that school?" She says, "It's the one I could get into." It's hard to get into dental schools. So I looked up the classes. One hundred and thirty-one.

LK: Wow! That's big.

WL: Do you know what the tuition is?

LK: What is it?

WL: Ninety thousand a year. I didn't want to tell her you're going to get out of school a half a million...unless your parents are wealthy, a half a million dollars in debt. You're never going to get out of debt.

LK: Gosh.

WL: That's immoral.

LK: Yes. I was going to say that seems very wrong.

WL: It is, but that's why there's so much demand to get into dental school. So they're starting these private dental schools and that one just dumbfounded me. I thought, oh, you poor thing. I didn't say anything to her but I thought ohhh. How are you going to pay that debt off?

LK: Yes.

WL: Unless your parents are *very* wealthy, you're never going to get out of debt. Oh! I almost said something to her. It wasn't my place.

LK: That's a hard position to be in.

WL: I just said, "Good luck."

[laughter]

WL: Oh! I think that's immoral. That's terrible if she was telling me the truth. I'm going to look it up and find out what the tuition is. That's what she told me. I didn't have time to delve into it. I've never even heard of the place. I said, "I know Loyola closed." Northwestern's got a good dental school. Why would they have another one? Money.

LK: Yes.

WL: That's what's going on. That's gotta be what's going on in Tucson, and Florida, and Las Vegas, too. They're all private. They just started them.

LK: Oh, private dental schools?

WL: They're private dental schools. To start a new dental school is a big expenditure. Huge. So they've got investors that are willing to do it, because they can show them the money. But if you're charging 131 students \$90,000 a year times four, that's a lot of money.

LK: It this a phenomenon in the past decade or so?

WL: Yes. It's because it's so hard to get into a dental school. People thought...hmmm, we can make money here. I know a bunch of retired Minnesota dentists down in Arizona that will teach in those clinics.

LK: Ohhh.

WL: They want something to do. They don't pay them much, but they don't care. It's something to do besides play golf.

LK: Yes.

We didn't talk very much about Erwin Schaffer. I didn't know if you had any more comments on his tenure as dean.

WL: I think Erwin did a good job. I think he took over from Crawford, who I think was doing a good job. I had no real contact with him. Erwin got the building built and all that sort of stuff. I think Erwin Schaffer did a really good job for dentistry. As far as his relationship with the health sciences, I don't know much about that. I knew Erwin for a long time, but I was doing research mostly when he was dean, and I wasn't paying attention to the politics of the Dental School or the Medical School, blah, blah, all

that stuff. I just had my head buried in research stuff. I didn't really pay any attention to it. I'd go to the meetings once in a while. I was more concerned about doing my research. Overall, I think Erwin did a really good job for the Dental School.

LK: And transitioning to Richard Oliver, what was the leadership style change like?

WL: Erwin was, I think, a really down-to-earth type guy. My only real criticism of Dick Oliver was I don't think he believed in specialty training. He would deny that if I talked to him. But I really don't think so, because he wouldn't have let some of those departments languish as much as... He thought that general dentists should be able to do everything—or I don't know what he was thinking. Maybe it wasn't that, but why did he let the Oral Surgery Department, and the Ortho Department, and all these other departments languish so much?

LK: My understanding of it was that there was retrenchment.

WL: Unless it was an economic thing?

LK Yes

WL: It could have been. I don't know. Again, I wasn't really paying much attention till they reorganized the school and I applied for that job. I could see from my friends in Oral Surgery and Orthodontics that things weren't... It was going *so* good in the 1970s. Then, throughout the 1980s, it just...

LK: When Richard Elzay came in there was heavy retrenchment. That's when they had the...

WL: That's when they reorganized.

LK: Yes.

WL: Basically, I liked Elzay. I think he did a pretty good job. Of all the deans there, I would say Erwin probably was the best. Elzay was next. Polverini would have been, but he wasn't there long enough. He might have been; I shouldn't say would have been. He was really research oriented, so I'm prejudiced. Dick Oliver supported us. Don't get me wrong. It might have been an economic thing. I don't know. I just got the feeling that he wasn't very supportive of anything besides Perio, because that was his thing.

[chuckles]

LK: I wanted to talk a little bit about the culture of the Dental School in the 1970s. I read a little bit about student activism and students protesting exams. I didn't know if you had any comment on that.

WL: Well, I think that was all part... When I was out in Boston—Forsyth is right next to Northeastern University—they burned Roxbury down. I watched it burn. [chuckles]

LK: Oh, wow.

WL: Northeastern University... I could look out my lab window. I went to all these parties with these... You know I was young then. The communes and all the student unrest and stuff. I never really smoked marijuana. You didn't have to; all you had to do was walk in the door.

LK: [laughter]

WL: Jesus! It was like billowing out.

I think the so-called stuff in the 1970s around here was at a much more subdued level. You know, it was part of the Flower Children revolution, and I think it changed the culture of how people thought about education and everything. I'm not surprised by what happened. I think they knocked down the traditional things and elevated everybody's grade point average at least a half a point... I think there were good things that came out of it and bad things, you know.

Those things, to me, other than the Revolutionary War, the Civil War, Vietnam, and what we're in now are probably the four biggest things that ever happened in the United States. And World War II. Those were major things. The Revolutionary War was a huge one. The Civil War was huge. You can still feel the effects of them. The Vietnam War was enormous. Now, this stuff we're in now is big. In my view, those are the four important things.

So what happened in the 1970s is not... It just happened. When I was a kid and raised, police were God. In the 1970s, they were pigs. It was a huge changeover. Things have sort of shifted back a little bit, but it's still a whole lot different society than it was when I grew up, way different. You were responsible for everything you did when you were a kid. Now, you're not. Somebody else is. That's a whole different change in attitude.

LK: Yes.

WL: It is. Some of it's okay and some it, in my view, isn't okay. I think part of that stuff, yes, it changed. Student activism changed the way they were treated, which was probably good on one hand. On the other hand, they probably made things a little bit too easy on them, in some senses, which isn't probably too good.

I remember when I was dean, students that had mental problems and stuff like that. You'd just try to tell them, "Hey, you can't be a dentist. You can't handle it." If you can't handle dental school, you can't handle the public. Oh, boy, it wasn't easy. It's a different ballgame now. I think it's kinder and that's a good part. It wasn't very kind when I was younger.

LK: Dental...?

WL: Society, in general. I think society is a lot kinder now, but it's a little bit too loose sometimes, in my view. I think that's the same in education. It loosened up a lot, changed a lot of people's attitudes. In the Dental School, that was probably a lot of good. It was run like a boot camp when I was here. It was terrible. That's why I almost quit. I think that helped a lot. That culture of the student revolution was probably a good thing.

LK: I don't know what committees you were on when you were in the Dental School. I didn't know if you had any comments on efforts to admit more women and more minority students.

WL: Oh, there's always been a big push there. I had every job in the Graduate School, too, except the dean. [chuckles]

LK: Yes.

WL: I was on that for a long time. Yes, I was on a lot of the committees in the Dental School.

There was always a huge push to... When I went to Dental School, there was one woman in all four classes. Period. [chuckles] I mean, she was the only one. All the rest were males. When I got done being dean, there was between thirty-five and forty-five percent. So we made big progress there. We made progress with Asians, but we made very little progress with African Americans.

Native Americans, we made no progress. Once in a while, one comes through. I don't know now, but there were no Hispanics either. In the early days, part of the problem I think was that well qualified African Americans went to medical school. It was really hard to get them. I don't know what the distribution is now. It was a lot easier to get Asians to come to the Dental School. There's quite a few of them in Dental School now, I think, and there's a lot women, too.

LK: Yes.

WL: The minorities, I don't know how we're doing. I haven't looked at that other than Asians were. Getting African Americans or Native Americans... I don't know about Hispanics at all. I would imagine they will start coming fairly soon. Some of them have been here long enough that I would guess that we're going to see more and more of those. I don't know about the African Americans. I don't know. There's been a few. I know a few dentists that are African American, but not many, not at least in the Midwest here.

LK: I was wondering if you could talk about some of maybe your biggest contributions in the Graduate School. You held a number of positions in that.

WL: Well... In the old days, you had to be nominated to be on the Graduate faculty, so there was a committee for that and they had rules and regulations for that. Then, they had a Course Evaluator Committee. I was the head of that for a while, too. Then, they had evaluated programs. I remember being part of that. When the nurses wanted a Ph.D. program, boy, that was a huge fight. It was sort of like oral biology in the Dental School. What's oral biology? What is it? It was the same thing with the Ph.D. in nursing. So there was a lot of...so what's that? The Medical School, at the same time, was getting rid of their Ph.D. in surgery and their Ph.D. in these other things. Then, all of a sudden, the nurses wanted a Ph.D. in nursing and the Medical School is going the other way. That was pretty interesting. That was a big fight for a couple of years. You know the whole Graduate faculty actually voted on it. I had to review all these things. It was like holy smokes. There were a lot of pros and cons. It was a close vote. I remember when they got it approved, but it was close.

And I remember when the oral biology thing went through, too. At that time, I wasn't really for it. Burt Shapiro was the head of it at the time and he was pushing it, of course, because it was his baby. [chuckles] I was part of the Graduate faculty there, but I wasn't on his side on that one, because I had gotten my Ph.D. in microbiology.

[laughter]

LK: Yes.

WL: He got his in genetics, so I don't know why he was pushing it. It was a new program, and he wanted to push that program. It did work out. They got mentors from microbiology and mentors from other people and so forth. I'm sure that's what the School of Nursing is doing, too.

LK: How many years did that fight go on?

WL: Oh, the nursing fight went on for... Ooof! I don't know. I can't remember. It went on for years.

LK: Okay.

WL: It would crop up and, then, it would get killed, and it would crop up. I think once Burt pushed that oral biology thing through, then it loosened up a little bit. Then, the next fight was when Medicine was closing down their Ph.D. programs. [laughter] It was pretty interesting.

LK: Yes.

Did you do any work with the State Legislature?

WL: Not very much. I made one gigantic booboo one time. I didn't know very much about the State Legislature. I went to a few of their things. I did go over there and met

with several of them. I met with the bureaucrats in the medical assistance program. I did get some of that changed. I remember talking to one. I can't remember her name now. The Legislature passed... I thought the Legislature had done it with medical assistance. There were eleven different programs at one time and they all got money from the state. I thought, that's the dumbest thing I could ever think of. There's MHP [Metropolitan Health Plan]. There's Medica. There's Blue Plus. There's all these different programs for the same thing.

LK: Yes.

WL: I said, "That's got to be totally inefficient. So I was just ragging on this legislator. What? Then I find out, they passed the bill, but it was the bureaucrats that set it up. It wasn't her.

LK: Oh.

WL: So I had to go back and apologize to her.

[chuckles]

WL: I thought this is the stupidest thing. There were eleven different programs doing the same thing. That's inefficient.

LK: Yes.

WL: Anyway, I didn't really have a lot to do with the Legislature.

LK: I guess to wrap up, I didn't know if you had any final thoughts or maybe questions I didn't ask about changes in dental education, research, practice over the years.

WL: Well, the thing that still irks me is... One of the things that I pushed for intellectually or academically was evidence-based dentistry. I pushed that probably my whole career. I watched how people were doing things in dentistry, and it was just passed on and passed on whether it was scientifically shown to be a good way of doing it or not. Naturally, a lot of clinical things, that's the way they are, and they work, and they're fine. But there was parts of dentistry that were... If your teeth didn't fit together right, it made your jaw sore and all this sort of stuff. There was a lot of that stuff out there. Nobody had done any studies.

LK: Hmmm.

WL: I notice now that it's a big thing, *finally*. But it took forever to do evidence-based dentistry. Now, it's big in dentistry, finally. It's not being well accepted all across the board yet. It's going to take a while. This was started several years ago. They have it in the ADA [American Dental Association] journals now, and they do in the ortho journals. Instead of this works good in my hands kind of stuff... Well, maybe it does, but does

that make it the way to do it? I got so sick of going to those meetings where...I always do it this way. Boring. I'm trained differently than they are, too. They write books about this stuff. There's no evidence behind it. There's tons of publications out there that are not evidence-based. Ugggh. And they were teaching this stuff in the school. It drove me *crazy*. I think that's a positive change.

The only other thing that I still think is a negative thing, and it's probably a budgetary problem, is they don't give students enough time to do research. They're trying to raise money for their student research programs over there. The problem is... I went over to the Professor of the Year thing. A month or so ago, they had it. I said, "So, how much time do students have to do research?" Well, they get to do research the summer before they go to Dental School.

LK: Ohhh.

WL: I'm going like... [sigh] And a little bit between their first and second year. That's hard for me support financially.

LK Yes

WL: They know Fred [Bertschinger, Director, Development, School of Dentistry] and I are good buddies and Emily Best [Director, Alumni Relations & Development Officer]. I would love to contribute to that, but that holds me back. I said, "There's just no time in the curriculum." I remember when they made that vote, and I was *vehemently* opposed to it, that the students had to go to school between the first and second year. If you're going to give them an experience, and if they don't have time... I used to have students in my lab all the time in the summers. It was great, and some of them went on to do research and do stuff. I don't see how you can attract them now. I just think the curriculum is gotten too full of clinical stuff. Somehow, they need to change that, but I don't think they're going to.

LK: So is it clinical course work they're not spending as much time...

WL: They go into the clinic. They go into radiology, or they go into this, or they go into that. In the old days, they didn't do anything. They either had a summer job or they got these fellowships to work in labs and stuff. Some of them liked it, and some of them didn't. There's no time now. To have them come in and do research with somebody for a summer before they go to the Dental School, and then what do you do? Cut them off?

LK: Yes.

WL: They can come in. They get some time. Well, it's not the same as going there every day and doing your stuff.

LK: It's also hard, because they haven't even started school.

WL: They don't have to do dental research. They get a research experience. That's not bad. But, then, they can't continue it. There's no continuum like... Some students would go between their first and second year and second and third year and, then, they would fight to get it in between their third and fourth year. Even though they were probably working in the clinic, they'd still continue it—the ones that wanted to. It's impossible now. Unless you sign up for these MinnCResT [Minnesota Craniofacial Research Training] programs that Hertzberg is running—they've got a new D.D.S. Ph.D. program that's running—the average dental student doesn't get any research experience. So how are they supposed to understand evidence-based research if they don't know what the hell research is? That was one of my pet peeves, and it's still a pet peeve. [chuckles] And that's why Fred isn't getting very much money from me.

# [laughter]

WL: I'm supposed to call and have lunch with him, but I know he just wants money.

LK: [chuckles]

Thank you so much for meeting with me today.

WL: You're welcome. It was fun.

[End of the Interview]

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