



The Alma Dea Morani Renaissance Women in Medicine Oral History Project

Nanette K. Wenger, MD

Interview Summary and Table of Contents

Nanette K. Wenger, MD, recipient of the 2023 Alma Dea Morani Renaissance Woman in Medicine Award, is a pioneering cardiologist whose career has centered on identifying overlooked areas in cardiovascular medicine and bringing them into clinical and research focus. In a four-hour oral history interview conducted in two virtual sessions in December 2025, Dr. Wenger reflected on a career shaped by curiosity, persistence, and a commitment to patients and populations often left at the margins of care.

Raised on Long Island, Dr. Wenger attended Hunter College High School and Hunter College, graduating in 1951, in an environment she described as rigorous and oriented toward developing women leaders. Drawn to both science and people, she entered Harvard Medical School through early admission, completing her undergraduate degree after her first year. She graduated from Harvard Medical School in 1954 and recalled being “blissfully unaware” during her application process of quotas limiting women and Jewish students in medical education at the time, when only ten women were admitted per class.

Early training at Mount Sinai Hospital proved formative, particularly learning cardiology during a period of rapid discovery that drew her into the field and exposed her to mentors who modeled both scientific rigor and patient-centered care.

In 1958, newly married to gastroenterologist Dr. Julius Wenger, she followed him to Atlanta after he accepted a position at Emory University. After additional training at Emory University School of Medicine and Grady Memorial Hospital, she joined the Emory faculty and became Chief of the Cardiac Clinics at Grady. She described this as an unusually energetic period, working alongside young physicians who believed they could change medicine. She and her husband raised three daughters while coordinating clinical responsibilities so they were never on call at the same time.

Atlanta also deepened her awareness of inequities within medicine and society. At Grady, she challenged segregated norms of care, including differential forms of address for Black and white patients. Encounters with Martin Luther King Jr., Coretta Scott King, and Congressman John Lewis—who coined the term “good trouble”—reinforced her conviction that entrenched systems, including in medicine, had to be questioned. As a New York Jewish woman physician in the South, she recalled initially being known as “that funny-talking lady doctor” and felt that her willingness to challenge inequities helped others come to see her as a leader.

Over her career, Dr. Wenger authored or co-authored more than 1,700 scientific articles, reviews, and book chapters. She repeatedly emphasized identifying overlooked areas of medicine and bringing them into focus.

One of the most significant of these areas was women’s cardiovascular health. She reflected that heart disease was long viewed primarily as a male condition, contributing to the underrepresentation of women in research and clinical understanding. She recalled advocating for the inclusion of women in studies and for recognition of sex differences in cardiovascular disease. Characterizing her approach as a “bulldog mentality,” she emphasized sustained effort in the face of institutional resistance. She cited a landmark 1993 *New England Journal of Medicine* article on cardiovascular disease in women, which she first-authored, as



an important milestone, while noting that gaps in research and representation remain.

A similar concern shaped her leadership in geriatric cardiology. Older adults, she observed, were frequently excluded from clinical research and underrepresented in guidelines. As president of the Society of Geriatric Cardiology and editor-in-chief of the *American Journal of Geriatric Cardiology* for more than 15 years, she worked to ensure that older adults were included in research and practice. She also advanced cardiac rehabilitation and prevention, recalling an earlier era when post-heart attack patients were kept on prolonged bed rest. She and colleagues demonstrated the safety and value of early ambulation and structured rehabilitation, helping establish one of the earliest cardiac rehabilitation programs in the U.S. at Grady.

Across these domains, she emphasized a leadership style she called “bottom-up.” Rather than directing from above, she worked to help others embrace a shared vision. She takes particular pride in mentoring future leaders in cardiovascular medicine.

Now in her mid-90s, Dr. Wenger continues to see patients, write, serve on committees, and mentor younger physicians, and has long been actively engaged in Atlanta-area organizations, roles she has maintained for nearly seven decades.

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Nanette K. Wenger, MD

Interview Session 1: December 8, 2025

Chapter 1

Early Life, Family, and Influences

Laura Ettinger

[00:00:15]

Okay, my name is Laura Ettinger, and I am here interviewing Dr. Nanette Wenger. And I am delighted to be with you, Dr. Wenger. Dr. Wenger is the 2023 winner of the Alma Dea Morani MD Renaissance Woman Award. This award is given to, is given by, rather, the Women in Medicine Legacy Foundation every year to an outstanding woman physician or scientist who has left a significant mark on history and pivotally advanced the future. The Women in Medicine Legacy Foundation does an oral history series with our award winners, so it is a terrific honor to be spending time with Dr. Wenger and learning about her journey. Our interview today is taking place on Monday, December 8th, 2025 with Dr. Wenger in her office at Emory University in Atlanta, and me at my office at Clarkson University in Potsdam, New York. So again, Dr. Wenger, thank you so much for agreeing to do this interview. I'm really pleased to be with you here today.

Nanette Wenger

I'm delighted to participate, but my office, even though I'm a faculty member at the Emory University School of Medicine, my clinical base of operations, and as a matter of fact, my academic and research base is Grady Memorial Hospital, which is one of the major teaching hospitals of the Emory University School of Medicine.

Laura Ettinger

I stand corrected, thank you very much. So, Dr. Wenger is at Grady, at the Grady Memorial Hospital. So, Dr. Wenger, I was thinking of just asking you to begin at the beginning, and could you tell me a little bit about your early life, your childhood, your family, why don't we start there?

Nanette Wenger

Well, I grew up on Long Island, and went to public school, as a matter of fact, Public School 63 Queens, which was the neighborhood school. And then made a major departure, because I went to high school in Manhattan. And this meant riding either the subway or the Long Island Railroad into Manhattan every day. I think you can imagine how much of a challenge it was to



persuade my parents that it was safe to allow their older daughter to do all of this traveling alone. And I think it was only the prestige of the Hunter College High School that persuaded them to give me that opportunity. Hunter College High School was started as the training school for teachers of Hunter College. And it is competitive admission from the five boroughs of the city of New York, so that I had the opportunity to interact with enormously talented women, all women, of various backgrounds and was very comfortable being in a multi-ethnic, multi-racial, multi-socio-economic setting that mimicked the real world, except that these were people who competitively made it into that class.

Laura Ettinger

Amazing. How did you decide that you wanted to go to Hunter College High School?

Nanette Wenger

I expect that it was some of my teachers during my last year or two who said that the neighborhood high school probably would not afford me an adequate challenge and said I needed to be challenged academically, and suggested the Hunter College High School. And I did the competitive admission process, and fortunately was accepted. And then it was the competitive persuasion process that was done.

Laura Ettinger

And can you say a little bit about what you were like in high school? How might someone have described you in high school?

Nanette Wenger

[00:04:54]

Well, I have always been a people person, and I was a member of numerous clubs, the biology club, and one of the writing clubs, and so forth. So I had a number of after-school activities, but I was always interested in science. But, you know, when you're interested in science, either you say, I'm going to be a lab person, or I'm going to be a people person. And I was the people person. And the ideal marriage of that was medicine. And I think early on, in secondary school, I thought seriously about pre-med and medical school. And my parents are not physicians, but my father, one of my father's sisters in Europe was a surgeon. So, as a matter of fact, when people ask my two daughters, who are physicians, what is it like to be a woman physician, they say, we're third generation. So, there was a background, and a number of my cousins, older cousins, were in medicine, so I was exposed to that early on. And the curriculum at Hunter College High School was fixed. There really were no electives, but there was a sizable exposure to the laboratory and biology and chemistry. And as I was finishing secondary school, the question was, where would I go to college? And my parents made it eminently clear that they would not have their older daughter away for eight years, so that if I thought that I might be going out of



town for medical school, they wanted me in town, at least for college. And I decided I would stay in town for college, and went right next door to Hunter College. Hunter College had the luxury of a pre-medical major, which was a multidisciplinary major, and that meant that you didn't have to have a minor. So the course requirements were the biology, chemistry, physics, etc. for medical school, but it still gave me the opportunity to take a number of courses in other disciplines that I would not have been able to do had I had to take a minor. And I loved college. I was involved in every aspect. I was an officer of student government. I went to conferences for student government during the summer. I was really very involved in college life. I was a member of a sorority, I was a member of Phi Sigma Sigma, and active in my sorority, and I just loved college. Also, Hunter College has a famous inter-class competition called Sing, which is a competition among the four years. And one of my closest friends to date was the head of Sing, the artistic director, and I was the business manager of Sing, and that cemented our relationship. And I just loved college life. My science professors suggested that I try to apply to medical school after three years of college. And they said, you probably need the experience of applying to medical school the first time, so you will do better the second time. That was the first time anybody had ever told me that applying was a challenge. I sent in my applications, I did my interviews, and was delighted to be able to select my first choice, which was the Harvard Medical School, after three years of college. So my fourth year of college was synonymous with my first year of medical school, and I didn't get my college diploma until I had satisfactorily completed my first year at the Harvard Medical School.

Laura Ettinger

Amazing.

Nanette Wenger

So I missed being a senior; I missed all of the senior fun. But I was at the Harvard Medical School and was so thrilled beyond belief.

Laura Ettinger

[00:09:47]

I have so many things I want to follow up on; that's all so interesting. Can we actually go back to your parents, who allowed you, it sounds like, to take the Long Island Railroad to Hunter College High School. Can you tell me a little bit more about them?

Nanette Wenger

My parents were both born in Russia in a small town outside of what is now Ukraine, outside of Kiev. They were highly educated; they spoke multiple languages and came from very intellectual families. My mother came to the U.S. on the last boat to leave before the First World War, because she was, her family had gone earlier, but she was finishing up her university studies. My



father's family was in the lumber business in Russia, and their main client was Japan, so that among the languages that my father spoke was fluent Japanese. And when he was escaping Russia to avoid conscription into the Tsarist army, he went through Siberia, and to Japan and settled in Yokohama and stayed there for several years. And again, speaking fluent Japanese and having the contacts of his family made that very comfortable for him. And as a child, I had pictures of him sitting dressed in a full kimono with his Japanese friends and colleagues, many of whom remained friends as he transitioned to the U.S.

Laura Ettinger

What a story. Both of your parents, actually. So, both of your parents came to New York then, the New York City area.

Nanette Wenger

No, no, my mother came to New York; my father came initially to San Francisco, and then was transferred to New York. My father had been friends with my mother's oldest sister, but really never knew my mother growing up, even though they were in the same community. And the older sister was the one who introduced them in New York.

Laura Ettinger

Okay, okay. And then what did they do in New York?

Nanette Wenger

Well, my mother had been a very successful artist, had done some magazine covers, and I still have some of the original watercolors of those, but when she married, she stopped her art career and did a great deal of community volunteer work. My father worked with the group that he had become involved with in Yokohama, and that was HIAS [Hebrew Immigrant Aid Society], the Hebrew immigrant and assistance group and was very much involved with helping get immigrants to the U.S, and his entire career was with HIAS.

Laura Ettinger

Fantastic. And, you grew up with a younger sister, is that...

Nanette Wenger

My sister was five years younger, and because of that I did, I think, the pioneering work, because she followed me to Hunter High School and to Hunter College and then went on to get a graduate degree at Yale and was an historian. So historians run in my family.



Laura Ettinger

I like that. And when you think about your parents, you mentioned that they were very intellectual. What qualities or values stand out most to you when you think back to your growing up years and what you were taught by them?

Nanette Wenger

Well, the things that they valued were music and art and literature, so books abounded at our house. There were the usual piano lessons that you might anticipate, but weekends were very often involved with trips into New York to museums, and museums were just part of my growing up, as was music. Both of my parents loved opera, and as a high school student particularly, and later on in college, it was a luxury to go to the old Metropolitan Opera House in New York before they moved to Lincoln Center. And music was very much a part of my early life, and actually it's carried over as a hobby across the decades.

Laura Ettinger

[00:15:01]

Wonderful, wonderful. What other kinds of things were you interested in when you were growing up? I thought I read somewhere that you were an accomplished ballet dancer up until medical school.

Nanette Wenger

Well, in the first place, I was a Girl Scout, and did all the things that the Girl Scouts usually do, but I enjoyed ballet. I never wanted to do it seriously. I always did it for fun, because I enjoyed the music, and I enjoyed the challenge. And, being in New York allowed me to be in the junior company of a group. And it was just wonderful exercise, relaxation, camaraderie, and of course, I didn't have the challenge that all of my colleagues did who wanted to do ballet professionally. I never wanted to do it professionally. I was doing it because I thoroughly enjoyed it. And, that was a challenge to my instructors, who said, "Why are you doing this?" And I said, "Because I like it." And I'm not sure they believed me.

Laura Ettinger

I love that.

Nanette Wenger

Fortunately, I was never good enough to ever consider doing it seriously, but I enjoyed it, and as a matter of fact, as my daughters were growing up – and all of them went to the Atlanta Ballet School for Ballet training – when I drove them there, I worked with the Atlanta School of Ballet, and what they did is they had ballet classes. They had ballet exercise classes for the parents while we waited for the children.



Laura Ettinger

That's incredible. What a great idea.

Nanette Wenger

It was much better than sitting in the car and listening to the radio.

Laura Ettinger

Yeah, that sounds fantastic. I have two daughters, and I don't think I ever had an opportunity like that. That sounds very smart. A smart way to get the parents involved. You had mentioned that you had always been interested in science, and that you're a people person, and so your interest was in medicine. Do you remember what got you interested in science? Or was it just something you were always into?

Nanette Wenger

Well, I think it really was the thrill of discovery. And in the laboratory, everything that you do is discovery. Beginning with the dissections and anatomy and the problems in chemistry, it's trying to solve problems, and being able to get answers.

Laura Ettinger

Sounds good. Going back for a moment to Hunter College High School, which sounded like a great environment. Did you have peers from high school who eventually were applying to medical school?

Nanette Wenger

I had one or two of the women in my class and the class behind me who were interested in medicine. And one of them subsequently went to Yale, and I'm not sure where the other one went. But there were a few of us who were interested in medicine, and our teachers absolutely supported and encouraged that interest. And no one really told us that it was a problem. So that along the way, this was not essentially presented to us as being something that was impossible to accomplish. The idea was you apply. And you're accepted. And I think that that approach very much influenced my interviews. I went to the interviews and joined the interview process and everything else, but not being challenged. Only later did I realize that there were quotas at all the schools. Virtually all of the schools had quotas on women. There was a Jewish quota in virtually all of the medical schools. But I was blissfully unaware of that until a number of years later. And so were many of the other women. I think the men were told about this as they were applying. They were told about quotas and told about where to apply, etc. The men received much more counseling because the counselors had much more experience with men going to medical school. The counselors did not have that much experience with women in medicine. And they knew that



we were determined, they encouraged us, but I think probably fortunately, they didn't tell us that this was not an easy path.

Laura Ettinger

[00:20:31]

Interesting. And here, I just want to make sure, I think I know what you're talking about here. This is all talking about applying to medical school, right?

Nanette Wenger

Yes, yes.

Laura Ettinger

And you're talking about quotas for women, for Jews, I know there were also quotas for Black people at medical schools.

Nanette Wenger

There was virtually no enrollment of Blacks in the premier medical schools, so there really wasn't a quota. There was a woman in the class, a Black woman in the class ahead of me, at Harvard, who went ended up with a very successful surgical career. But there really was no official quota on any racial or ethnic minority, because they weren't considered part of the applicant pool. And as we look at it today, it's a tragedy that all of us accepted this because that is the way it was.

Laura Ettinger

And, just to clarify, is it correct that you started at Harvard Medical School in 1950?

Nanette Wenger

Yes, and I graduated in '54.

Laura Ettinger

1954, and so your first year at Harvard Medical School in 1950 to '51 was also considered kind of your last year of college, right?

Nanette Wenger

That's right.

Laura Ettinger

And then you got your diploma from Hunter College, in 1951, but having completed that year at Harvard Medical School.



Nanette Wenger

Yes.

Laura Ettinger

Okay.

Nanette Wenger

And along the way, I remained very much involved with the Alumni Association of Hunter College High School. And actually, within the last couple of years, I've hosted a reception at my home for people who are in the Southeast from Hunter. And, I've been involved with the group, which is very impressive, and Hunter College High School, now co-ed, is totally different from when I went there. And as a matter of fact, I think it was two years ago, I was invited to give the commencement address at Hunter College High School. And I was completely honored to be able to do that. It was in the auditorium of Hunter College, where I had been involved with Sing, and I was amazed by how relatively small the auditorium seemed to me in the 2020s, compared with the huge auditorium I perceived as an undergraduate there.

Laura Ettinger

Amazing. That's amazing. I'm sure that the students at Hunter College High School were very honored that you accepted that, and that you were going to give the commencement address. That's fantastic.



Chapter 2

Harvard and Mount Sinai: Medical School and Medical Training

Laura Ettinger

[00:23:28]

So, Harvard Medical School, let's talk more about that. So, you know, you said that you didn't know about the quotas at that time, when you entered in 1950. It sounds like you didn't even expect that it would be difficult to get into medical school, right? Because you had been told maybe you should apply a year early in case you need to practice, essentially. But then you clearly got into exactly where you want it to go. Why did you choose Harvard Medical School?

Nanette Wenger

I'm not really sure, except that I was very impressed with the interview process. And I didn't realize that you weren't supposed to ask your interviewer questions, and I did. In all of my interviews, I asked my interviewers questions. And I really appreciated the answers that I got from my interviewers at Harvard, and felt that that was the place that I wanted to go. And when I started, I was fairly confident because I had gotten accepted after three years of college to a large number of the schools to which I applied.

Laura Ettinger

Okay. And so how many women did you enter with?

Nanette Wenger

By decision of the Board of Overseers, there were 10 women in each class. And, you know, Harvard was relatively late among the medical schools in admitting women. And the decision of the Board of Overseers was that there would be the experience of 10 years with women at Harvard. And that 10 years expired the year that my class graduated. And based on that 10-year experience, the decision would be made whether or not to incorporate women in the university charter. So we were essentially there on probation. And as such, we were not entitled to university housing. The men lived in the university dormitory, in Vanderbilt Hall, under house rules at the time, and the women lived in apartments in town.

Laura Ettinger

And what was that like, that the men were all living in, you know, one place, and the 10 of you were living separately?

Nanette Wenger

Well, one of my roommates was a medical woman, a medical student who was a year ahead. There was another woman medical student in the apartment complex, so we did a lot of our meal



functions together. You know, breakfast is always an on-the-run. Lunch we had at Vanderbilt Hall. We walked across the street during our preclinical years, and the women did a lot of dinners together. But the attitude of the men in my class was wonderful. They took care of the women and made it rather challenging for any of the faculty members who were trying to dismiss the women. So, they were our allies. My lab partners have remained close friends over the decades. And I had a wonderful time in medical school. I enjoyed, to some extent, the preclinical years, but I couldn't wait to start seeing patients. And my clinical experience with some of the greats of medicine and cardiology was wonderful. And I loved the patient contact. Even though many of them were a little bit hesitant, not only by a medical student, but by a woman medical student. But I had no problem convincing them that I belonged there, and again, I think women enjoy listening. That's probably a female trait. And many patients commented to me over the years that you've listened to me more than any of the other doctors, because taking a clinical history, the question is: are you going to interrupt, interrupt, interrupt to get your answers, or are you going to listen and give the patient control? And I think my accomplishments were related to the fact that I gave patients control.

Laura Ettinger

[00:28:19]

That's fascinating. And just to follow up about that, you said that when you were in your clinical years in medical school, and working with patients, they were hesitant, perhaps, for two reasons. One, you were a medical student, right? You didn't have the MD yet, but also that you were a woman, and you're saying that when you showed that you listened and gave them control, that sounds like they did more than accept you, but what about initially? How did you deal with their hesitancy initially? Do you remember: what did you do to convince them that it was going to be okay dealing with a medical student and a medical student who was also female?

Nanette Wenger

Well, I think a lot of it was that I was fairly confident that I knew what I was doing. And I would introduce myself, saying that I'm Nanette Kass. I am a third year, or then subsequently fourth year medical student at the Harvard Medical School, and I'm working with your doctor, so-and-so, to take care of you. And that positioned me where I wanted to be.

Laura Ettinger

And, speaking of that confidence, was that something that you always had? We know that that's sometimes something that women struggle with, right? That girls and women can, I mean, people can struggle with that too, of course, but, do you think that was something you always had?



Nanette Wenger

I think so because I knew I was where I wanted to be. I knew that my training and education were superior. And that this was what I was able to accomplish if I continued in that pathway. So I was very comfortable with me as a medical student.

Laura Ettinger

And, you mentioned that your peers were wonderful, your majority male peers.

Nanette Wenger

Oh, yes.

Laura Ettinger

Yeah, and I thought you were saying that if faculty were expressing some hesitancy about women, your male peers kind of jumped in about that. Could you talk more about that a little bit?

Nanette Wenger

I think that there were one or two faculty members who either were uncomfortable with women or really didn't think we belonged there. And their attitude was not like the rest of the faculty. And by various games and what have you, the men made it clear to them that that was not acceptable. And there was one professor, who shall remain unnamed, who really went after the women, and the men came up with a wonderful solution. He suggested that we all buy fairly short skirts and sit in the front row of the lecture hall and cross our legs. And we did that at this professor's lecture. No one said a word. But he got the message, and he backed off. It was something I think the women would have never thought about, but the men said, let's do this.

Laura Ettinger

Wow. Incredible. You also mentioned that you had some of the greats, that you were being taught by some of the greats in cardiology. And I think, or maybe you were talking about your clinical years in medical school. When did you first become interested in cardiology?

Nanette Wenger

[00:32:21]

I think cardiology interested me early on, because this was almost the frontier of medicine. We were beginning to translate the laboratory to the bedside. It was the beginning of precise diagnosis. It was the beginning of new medications. And it was an area where there was literally discovery month by month. And then, of course, I was exposed to some of the greats as my instructors. When I was at the Beth Israel Hospital, Dr. Herrman Blumgart, who was physician-in-chief, was one of my attendings on ward rounds, and taught me a huge amount about patients and disease and patient care. And then one of my other attendings was Dr. Louis Wolff of the



Wolff-Parkinson-White syndrome. I was exposed to teaching from Dr. Paul Dudley White. And then some of the surgeons who were just beginning cardiac surgery were among the lecturers. And the fact that you could operate on the heart, operate on a human heart, was just amazing. And then, of course, at the Boston Children's Hospital, there was exposure to Dr. Alexander Nadas, who was essentially one of the founders of pediatric cardiology. And we were beginning to make a diagnosis, a specific diagnosis, rather than just saying congenital heart disease, because that was enough; you couldn't do anything for it. But once there became an approach for specific congenital heart diseases, the surgeons taught us that we had to learn how to make a diagnosis to say who was eligible for this life-saving surgery. So it was just a wonderful period of discovery.

Laura Ettinger

Wonderful. Can you say a little more about, if I got the names right, Dr. Blumgart, Dr. Wolff, Dr. White, the kinds of things you learned from them about patient care, or whatever it was that really sticks with you about what you learned from them?

Nanette Wenger

Well, you know, one of the statements that you hear again and again in the Harvard Medical School is that the secret of taking care of patients is to care for the patient. And we heard that beginning in our first clinical lecture. And we heard that again and again, which meant that there was a lot of interest in the patient's disease. But the main interest in the research lab, as well, had to be focused on the care of the patient. And that has remained with me throughout my career.

Laura Ettinger

Thank you. How did you decide where you were going to do your internship and residency, as you were graduating from Harvard Medical School in 1954?

Nanette Wenger

[00:35:44]

Well, that was a relatively difficult decision to make. Because there was, of course, the interest of my family and my coming back to New York. But I was offered a position, an internship at the Beth Israel Hospital in New York, in Boston, sorry, and was offered the position as the first woman house officer to be there. But I had, during my senior year, become an acting intern because of the illness of one of the interns, and had the best three months of an internship already under my belt as a senior medical student. Those were the days of mixed internships, so it was not all internal medicine. There was OB and surgery and what have you. So I'd had the best three months of the wards. And I decided that I was going to go to the Mount Sinai Hospital in New York. Again, this was the Mount Sinai Hospital, where there was no medical school. So that all of the teaching went to the house staff. And it was, as people have joked, the days that the giants



walked the walls of those hospitals. Because my attending professor in pediatrics was Dr. Béla Schick of the Schick test. My attending physician in OB/GYN was Alan Guttmacher of OB fame. Alexander Gutman, who was Chief of Medicine, was the editor of the “Green Journal” [*The American Journal of Medicine*]. Simon Dack was in cardiology. Arthur Master had just stepped down as Chief of Cardiology; that's Arthur Master of the Master two-step test. And Dr. Charles Friedberg had just taken over as Chief of Cardiology. So here were just some of the giants that I was exposed to. And as a matter of fact, during my rotation on medicine, I had as one of my attendings Dr. Burrill Crohn of Crohn's disease, and when subsequently, when I was a junior attending here at Emory and knew a fair bit about Crohn's disease, my students, my residents, and actually my co-faculty members said, when did you learn all this about Crohn's disease? From Burrill Crohn.

Laura Ettinger

Amazing. And I think I know the answer, but I just want to confirm that while you were at Mount Sinai, you were aware that you are being surrounded by the giants, that you are being taught by the giants, or was that more later that you realized—

Nanette Wenger

Oh, no. Oh, no, because all I had to do was go to the literature and see that the literature that I was reviewing was by the people I was making rounds with. And that is such a luxury. And the library at the Mount Sinai Hospital was just one of the gorgeous places. The old-fashioned wood-panel library with the leather-bound volumes of the journals, etc. And everything we needed was at our fingertips to review and to look at, etc. So, and we were encouraged as we saw patients, before we presented, at the Mount Sinai Hospital, the message was that the diagnosis had to be made the night of admission. We stayed up all night. We did all the lab work by ourselves. There were no night lab technicians. We were the lab technicians. And after that, we had to run to the library and see what we could get so that we could present to our attending in the morning. But it taught me the automatic reflex of going to the literature—either for a differential diagnosis of the patient's symptoms, or for a confirmation of what I had to do additionally if I thought I knew the diagnosis, etc. So that just became habit.

Laura Ettinger

[00:40:43]

Fantastic. So, just to remember the years, right? You were an intern at Mount Sinai from 1954 to '55, then a resident there from '55 to '56, and then chief resident 1956 to 1957. And I understand, or I think I read that you were the first woman chief resident at Mount Sinai.

Nanette Wenger

I was not chief resident, because I, instead, what I did is that I did a year of cardiology.



Laura Ettinger

Okay.

Nanette Wenger

Yeah, I did a year of because Dr. Friedberg had just taken over as Chief of Cardiology, and he invited me to be his first cardiology—they were called residents then, but I was a fellow. And, it was just so exciting, because I spent my days with the people whose work I was reading about. And of course, Dr. Friedberg is probably the author of the last sole author textbook of cardiology, and that was the standard of care, and he was considered probably the eminent cardiologist in New York City. So, seeing his patients was, like, seeing the famous from, really, worldwide, who came to see him. And he had a major influence on me, because, as you might expect, his rich and famous patients were not thrilled to see a medical fellow, and a woman medical fellow, and what Dr. Friedberg did has taught me how to work with juniors over the years. He said to his patients: this is the doctor who will guide the care of your children and your grandchildren. That was the way he introduced me to his patients. In the first place, it was a huge challenge. What am I going to do to live up to this introduction? But it made the patients accept me. And I can see him saying those words to this day. And he was the eminent clinician. And just making rounds with him was like reading a textbook. His textbook.

Laura Ettinger

So, tell me more about what else you learned from him, in addition to how to introduce junior colleagues, which, what a brilliant approach he took. What else did you learn from him?

Nanette Wenger

[00:43:42]

I just learned from him how to deal with patients with a difficult diagnosis, or a challenging test schedule. And, you know, in medical school, we were taught you never sit on the patient's bed. You always stand or sit in a chair. And I knew something was bad when he would sit on the patient's bed. And he would often sit on their bed and hold their hands and say, let's talk. And I learned how he presented bad news to patients. And how he gave them hope for what was the solution, or the temporizing for what their problem was. Or how he tried to persuade them to have a test like cardiac catheterization, which was relatively new at that time, or to go for the very new cardiac surgery that was beginning for valve disease. And he would really take his time and explain, and particularly explain why he was recommending what he was recommending. And he always told the patients that they were still in charge. But that he was giving them the information that would allow them to be informatively in charge. And it's something I still do every day. It's something I teach every day. But again, making rounds with him day in and day out was such a learning experience of how to do really quality patient care. And his care was



identical if it was one of the ward patients on the charity service, or if it was one of the rich and famous that you would recognize by name. It was the identical approach. And that conveyed a message as well.

Laura Ettinger

Thank you. That's wonderful. Can you say more about being a woman as an intern and resident, and then in what was essentially your fellowship in cardiology at Mount Sinai. Were there other women interns and residents there?

Nanette Wenger

There were just a handful, but one—during my tenure there, one of the women was chief resident, and she was a brilliant woman. And I think, because there were so few of us, the term lady doctor would identify you on a particular service. But it was a descriptor, rather than a put-down. And fortunately, every one of the women with whom I worked was really good and was really dedicated. But I was the first woman in the cardiology service with a group of men, and I was the chief. And it was not a problem because we all cooperated. And we were all so excited about what we were learning that there really wasn't any opportunity to compete. We all wanted to do different things early on.

Laura Ettinger

Okay. Is there anything else you'd like to say about your time at Mount Sinai?

Nanette Wenger

[00:48:02]

Well, part of the training in cardiology was doing the Master two-step test, which was the first beginning of an exercise test, and got me very much involved in the exercise physiology that I had been interested in in medical school. And I've probably done more Master two-step tests than anyone currently alive, and as I began to learn more about exercise physiology, realized its limitations. But the fact that exercise was a modality for cardiac evaluation was comfortable in my mind and influenced a lot of things I did later. And every day during my fellowship, at the end of the day, I read electrocardiograms with Dr. Simon Dack, who was probably the great electrocardiographer of all times, and just learned how to read, and why and the importance of precision, etc. And remember that at that time, there were relatively few tests in cardiology. We had the chest x-ray; we had the electrocardiogram. Cardiac catheterization was just beginning. Diagnostic catheterizations were very rare. There was no echocardiography. The only exercise modality was the Master two-step test. So the electrocardiogram became a critical part of what we did.



Laura Ettinger

Can you go back for a moment to the Master two-step test, can you describe that?

Nanette Wenger

Yes. These were patients who were suspected of having coronary disease, and the idea was to exercise them and to see if their electrocardiogram became abnormal. And they walked up and down two steps for a number of repetitions, and then were brought to a bed where they would lie down, and the electrocardiogram would be taken again to see if there was any abnormality. But as we've learned from subsequent, more sophisticated exercise testing, that was too late to see any of the changes that might have been a problem, but it taught me the safety of doing it. And of course, it was done on very stable patients.

Laura Ettinger

Okay. Anything else you want to say about your time at Mount Sinai before we move on to your move to Atlanta?

Nanette Wenger

Well, again, the surgeons there were beginning to do very exciting valve surgery, and therefore, we learned how to catheterize the heart. Remember, at that time, we were doing only venous catheterizations, no arterial catheterizations, and how to use the limited data that we had, to prepare the diagnosis. The majority of procedures that were done early on were mitral valve surgery. And I had seen some of the mitral valve surgery as a medical student at the Brigham, and here, seeing it again, we were just beginning to enroll patients and they weren't clinical trials because they weren't randomized, but at least they were registries. And the idea is we have to see what is the science beyond what we're doing. We were essentially building the airplane while we were flying it. And I learned the importance of evaluating what you're doing. Just because it's new and exciting doesn't mean it's good. So the whole concept of evaluation was very, very important.

Laura Ettinger

And may I ask what did it feel like to be building the airplane while you were flying it? Because as an outsider to it, it sounds potentially terrifying to be in that position, but that may not have been how it felt at all.

Nanette Wenger

[00:52:31]

Well, not, not at all, because what we saw is that diseases that were ultimately morbid or fatal were being cured, or at least ameliorated. And the guidelines that came out over the years really



taught us about the timing of it, the suitability of it—the details, the refinement of it. And that has been the case with every new procedure that has come along.

Laura Ettinger

So it sounds like it was just very exciting, right?

Nanette Wenger

Absolutely, absolutely. And as a matter of fact, that excitement continues today, because now, probably the major advances are being made in the world of imaging. And we're able to do non-invasively what previously required invasive studies. And being able to do something non-invasively gives you the opportunity to do follow-up testing, to see whether you're progressing, whether you're not, whether you're improving, whether you're not. And I think the next frontier is going to be an imaging frontier.

Laura Ettinger

Okay, excellent.



Chapter 3

Move to Atlanta: Building a Career, Cardiology, and a Family and Getting into Good Trouble

Laura Ettinger

[00:54:01]

Let's go to Atlanta, then. You're already in Atlanta. But you came to Grady and Emory early in your career. I see from your CV that you became Senior Assistant Resident in Medicine at Grady Memorial Hospital starting in 1958, and then you went on to become a fellow in cardiology there, 1958 to 1959. So can you talk about what it was like to make the move from New York City to Atlanta, and how you decided to do that?

Nanette Wenger

Well, the fascinating study is the study in chance. And my husband and I had dated when I was in medical school. But neither of us were ready for marriage, and he began to date others, I began to date others, and that was it. And while I was at Mount Sinai, he had been approached to come to Grady as Chief of Gastroenterology and stopped at Mount Sinai to talk to one of the people who had been his colleague, if you will, to say, what do you do as chief? Heard my name on the overhead page, and the rest was history. So my husband went to Emory a year before I did, and we married, and I followed him to Emory.

Laura Ettinger

I'm trying to decide if I want to ask you more about meeting your husband now or later; maybe I'll ask you now. So you said you began dating in medical school. So was he also at Harvard Medical School?

Nanette Wenger

Nope, he was in the military at the time, and he was in the Public Health Service. But it wasn't really an arranged marriage, but our fathers were friends, and our fathers introduced us.

Laura Ettinger

Okay. Okay.

Nanette Wenger

But it took a while for things to happen.

Laura Ettinger

Okay, okay, and what year did you get married?



Nanette Wenger

I got married just before I came to Atlanta. I came to Atlanta as a bride, which is one of the reasons for my decision as to what to do. When I came to Atlanta, there was the beginning of an increased time, both in internal medicine and in cardiology. And I had had two and a half years of internal medicine training, and I said, let me just, as I was getting accustomed to being a wife, a Southerner, a physician in a segregated society, I did six months of senior residency so that I had a full three years of internal medicine, and then cardiology training was just beginning to be two years, and I said, this is a wonderful opportunity for me to get additional training. I was pregnant at the time, and again, to do multiple things. So I had a year and a half of training within the Emory University system. And that was extremely useful, and then I joined the faculty, which was just a natural progression.

Laura Ettinger

Okay.

Nanette Wenger

[00:57:48]

So you have to know something about the southern medical schools to understand what was going on at Emory. And this was a result of the Flexner Report that was looking at medical education. And I had grown up in the North, where there were full-time faculty, both in clinical medicine and in basic science. In the southern schools, there were only full-time faculty in the basic science, and for the clinical faculty, the teaching was done by volunteers from the community. And when Willis Hurst became chair of medicine at Emory, he wanted to develop a full-time faculty in clinical medicine, which had never existed in the southern schools. But just think for a moment: who would come to a segregated public hospital in the Deep South? And what Willis did was very wise. He went to the prestigious training programs and got the people who were just finishing their training to come as faculty. So my husband, who was at the University of Chicago, one of the most prestigious gastroenterology training programs, went from being a fellow in gastroenterology to being Chief of Gastroenterology at the Atlanta VA Hospital, and Assistant Chief of Medicine. There were no underlings; there were just the chiefs. I went from being a fellow in cardiology at the Mount Sinai Hospital, and a little bit of training at Emory, to being Chief of the Cardiac Clinics at Grady Memorial Hospital. And all of our colleagues were the same, coming out of prestigious institutions. We were a wonderful, cohesive group. We felt that we were changing the world. Because we would fix everything that we hadn't liked about our training program, and put it in and make it new and better. If it worked, we kept it. If it didn't work, we changed it. And there was no one to tell us that it couldn't be done because it had never been done before. And these were probably some of the most exciting years that I've spent because I was able to implement so many of the ideas that had been wandering around in my brain for a long, long time. And as Chief of the Clinics at Grady, I was able to start



an anticoagulant clinic. We called it the Coumadin Clinic because Coumadin was the only anticoagulant. But at that time, it took two days to get the report, and when the laboratory called back to the doctors, they didn't even remember the patient, and they didn't know how to prescribe, and it was not a good setting. And I set up a system before any of the Standing Stone or current systems, where we had one dose of anticoagulants. The patients were given one pill or a half a pill, and depending on what that time, prothrombin times, or what was being done, not INR [International Normalized Ratio], the nurses would prescribe the Coumadin. And they didn't have to call the physicians. They had the patients. We developed a teaching program for patients where they had to pass an examination in a little paper book before they were started on anticoagulant therapy, and the nurses ran the anticoagulant clinic. There was a period of time when this was the largest Coumadin clinic in the country, and compared with other major medical centers, it was run by nurses who did not even have a baccalaureate. They were diploma school nurses, who were the nurses that we employed. And our outcomes were as good as the major prestigious centers. And the nurses loved the responsibility. And we expanded that. There was so much rheumatic fever then, at the time, and patients had to get rheumatic fever prophylaxis, which was either pills every day or an injection of penicillin every month. And the nurses ran the prevention clinic out of a card box in the office, where they would call the patients and remind them to come in. And I think I inadvertently started the first patient education program in the country, because when I came to Grady, the assumption by the people in power was that if you were indigent, you are not educated. You are not informed. And therefore, when patients went to the pharmacy, they got their medication by number. You got a number five, a number seven, a number nine. And first of all, I was annoyed at having to learn all the numbers and learn what they were. But my approach to patients told me that this was not appropriate. And one of my first tasks as Chief of the Clinic was to write to the pharmacy committee to say: "This is not appropriate. You need to give the patients their drugs by name, and tell them what it's for." And my secretary reminded me years later that I would repeat that same letter and just change the date the first of every month. It took almost two years, but we finally got medications by name. But what we did is to use the old mimeograph machine to make little paper handouts for patients that said: number one is Digitalis, this is your heart medicine; number five is Coumadin, this is your blood thinner. And we began to realize that having informed patients allowed us to give better care, and we developed handouts. We developed handouts for diet—for everything that we recommended for patients. And we had a whole group of patient handouts that were part of our care. And if you remember, the Weed system of the organized medical record is diagnosis, therapy, and education. And this was part of the education that was prescribed at each clinic visit, so that the patients got this education.



Laura Ettinger

[01:05:06]

So, there's so much here I want to ask about. This is all interesting. Why so much resistance at the pharmacy about changing from numbers to names? Was it that the people there thought it was a waste of time?

Nanette Wenger

No, they thought the patients would not understand it, would not remember it, and that it wasn't important.

Laura Ettinger

Okay, okay. And how—

Nanette Wenger

It had been done, it had always been done that way. And here was this funny-talking lady doctor who wanted to change it.

Laura Ettinger

So how did you convince them?

Nanette Wenger

After a while, what we did is we took out the original letters and crossed out the dates and sent it to them with how long I had been asking for it.

Laura Ettinger

Persistence, I hear, is quite a theme in your life.

Nanette Wenger

Well, again, if I think it's important—and I thought this was important—then I am very, very persistent. I hang on like a bulldog. And there's no point in getting angry. But there's just a point in informing, informing, and informing. And that was what I did, and eventually someone listened.

Laura Ettinger

And you said that all of you who came to be full-time clinical faculty members, it sounds like you were all young, and from these prestigious programs, right? You founded the Cardiac Clinics, you were the founding director of the Cardiac Clinics when you were right about 29 or 30 years old, something like that. This was in 1960, right? What was it like to be with this group of relatively young people from these prestigious programs? You know, it was kind of flat, right?



In a sense, there weren't older people that you were having to deal with for the most part. What was that like?

Nanette Wenger

Well, it was lovely. As I said, no one told us that we couldn't do it because it had never been done before. And Dr. Hurst's emphasis was excellence. And as long as there was quality, and as long as there was measurement, as long as there was accountability, we did that. And I did things that would have never been possible had I remained in New York or Boston, because I started the first early ambulation after myocardial infarction program in the world on the Grady wards. I had learned a little bit about ambulation, or really the chair treatment for myocardial infarction from Dr. Sam Levine at the Brigham, who put patients in a chair. At that time, patients were kept at bed rest for several months and hospitalized for ages, and invalidated for years. And the basis for that was the pathology studies that patients who died took months and months for their myocardium to heal. Well, I had had about four months of pathology training when I was at the Mount Sinai Hospital. And I realized that there was a difference between the patients who died and the patients who lived, and we were doing the wrong extrapolation. And we had just begun the coronary care unit. The patients were hardwired to a monitor so that we could see the safety of moving them around and seeing that they didn't develop bad rhythm disturbances. And I had the first federal grant to the hospital from what is now the Department of Health and Human Services, and it was a study of early ambulation and myocardial infarction, and we developed a 21-step program, so that for each of the 21 days, the patients did a little bit more. They dangled one day, they walked around the bed the next, and we sent the patients home at 21 days, where everyone was keeping them hospitalized for four to six months. And we kept good records. We fortunately had no problems. And when I presented the data some two years later at the American Heart Association meeting, most of my senior colleagues who were in the front row didn't question the science, but wanted to know how much malpractice insurance I was carrying.

Laura Ettinger

Wow.

Nanette Wenger

[01:10:18]

And then we started an outpatient rehabilitation program, because cardiac rehabilitation pretty much started in Europe, and it was residential rehabilitation, where patients went for months to a chalet in the Black Forest or a comparable region and were gradually ambulated, and then returned home. And that was just not feasible or functional for the U.S. And we thought to start an ambulatory exercise program, which we did at Grady Hospital. It was one of the earliest programs in the country, and continued for a number of decades. And a number of research papers came out of it. And we gradually changed our inpatient program that went from 21 days



to 18 to 13, but it was known as the Emory Grady Protocol, and appears in most of the standard textbooks.

Laura Ettinger

Wonderful. A little while ago, you mentioned that when you were coming to Grady, you mentioned an awful lot of life transitions that you were dealing with. You were a new wife. You were a new MD, relatively speaking. You are now becoming a Southerner after living your life in mostly, it sounds like, in the New York City area, with also Boston thrown in there. And you were moving, as you pointed out, to a segregated society in the late 1950s. And eventually, you mentioned you were also pregnant with your first of three daughters. Can you talk a little bit about coming to Atlanta and all these transitions?

Nanette Wenger

[01:12:14]

It was very much a new life. And I had my family. I had my work. And I had my community. My mother has always been involved with community. And I thought it was important to do the same when I came to Atlanta. And my husband and I were both music lovers. And early on, we became involved with the Atlanta Symphony Orchestra when it was still in its primitive—I guess it was, you'd call it a civic center, at the Atlanta Civic Center. I've been involved with the symphony now for six decades. I joined a synagogue, which was something that I was taught that you always did, and became involved, my husband much more so, in terms of committees and so forth. I joined a number of community groups. We were charter members of the art museum after the tragic crash at Orly¹ when we were trying to rebuild the art museum. And I joined a woman's organization, Hadassah, and ended up being president of two different groups over time. So one of the things that I was taught by my family and that has carried over into everything, is that as someone who is educated, employed, etc., you're privileged. And as someone who is privileged, you have the responsibility to give back to the community. And that really determined the things that I did in the community, and that I continue to do to date. And I ended up being president of several of the organizations in Atlanta, and had the privilege of being the first woman president of many of them. At a time when the men would say to me, “Do you know how to run a meeting?” And I had a standard response, which people have teased me about since. And I always would say to them, “Please share with me why you said that.” And some of that community effort translated [into my professional life]. I was one of the founders of the Atlanta Women's Network, which was a group of women who were working, because in the South, you didn't work unless you had to work. And those of us who had professions and careers, etc., were very much in the minority, and we thought that we needed a support group. And that group has continued to date. And it's also translated into things that I did in the professional societies. I was

¹ [More than 100 of Atlanta's arts and civic leaders died in a plane crash at Orly Airport in Paris in June 1962.](#)



first woman president of the Georgia Heart Association. Again, one of my surgical colleagues was the one who nominated me, and some of the older physicians said, “Are you sure you know how to run an organization?” And I gave them my standard response. I was the first woman president of the Georgia chapter of the American College of Cardiology. And as I told them at their meeting last month, it took them 40 years to choose another woman president. And today, we currently have a woman president. So I've had the privilege of being in leadership positions, and obviously, going up to that, you work in committees, you work in, etc., to get to a leadership position. And I think that's a very, very important part of academic life, to be involved in the professional organizations.

Laura Ettinger

It sounds like you really immersed yourself both in the professional organizations in Atlanta and in Georgia, and also in the community organizations, right? In various ways, you really did both.

Nanette Wenger

[01:17:14]

And actually, they helped each other, because for a long time, I was on the board of the Jewish Community Center. And we started a cardiac rehabilitation program in the community. And, of course, my experience in writing grants helped them get the funding that allowed that to happen, and that's a program that continues to date. We began a program for older adults. And, again, I had the experience of writing grants that helped my community effort, because I'd done the grants for my research studies, and grant writing was not a problem for me.

Laura Ettinger

Love it—that they fed each other. That's fantastic. Can you say more about coming from the Northeast to the Southeast, coming from Atlanta, and what that transition was like, what that looked like for you, how that felt?

Nanette Wenger

It was not good. And I had never grown up in a segregated society. And here, it was institutionalized and legalized. And I think if we had been in the community rather than in academia, we probably would not have stayed. But within academia, there were a sizable number of like-minded people who worked to preserve public education. You know, there was a movement to close the public schools rather than integrate them, and we were involved with that. And it was my privilege to meet a number of people that were involved in civil rights, because I got into trouble at Grady within my first year of being in charge of the clinic. And others have told the story. The hospital was built like an H. The two front areas were white; the two back areas were Black. In the clinic, one side was white, and one side was Black. And the patients were being called to their appointments over a PA system. The white patients were called Mr. or



Mrs.; the Black patients were called by their first name. And I said, this is not going to happen in my clinic. And I just instructed the people that everyone was to be called Mr. or Mrs. And as you might anticipate, I was in the director's office the next week. And the director was one of the good old boys, but I think one who saw the handwriting on the wall. And I remember our initial conversation. And he said to me, "Dr. Wenger, do you know what you've done?" And I said, "Yes, sir." And, you know, I was used to being Dr. Kass, and here was this Dr. Wenger who was getting herself into all kinds of trouble. And he said, "Do you know that it's against the hospital regulations?" And I said, "Yes, sir." He says, "Do you know it's probably illegal?" And I said, "Yes, sir." And he said, "Are you going to do it again?" And I said, "Yes, sir." And he said, "Well, you're gonna be down here, and we're gonna visit a great deal." This happened for a number of weeks, and we both got tired of wasting our time. And he said, "I think I know how to solve this problem." At the time, there was one cafeteria for all the white staff and employees. And you stood in cafeteria line to get your lunch. And we went to the cafeteria together, and we stood in line. And he put his arm around my shoulder and essentially hugged me. Today, he could have lost his job for that. But the message was clear, that we were friends. And the people were not going to get anywhere by reporting me. The reporting just stopped. We waited them out. But because of that, I had the opportunity to meet both Coretta and Martin King and was very, very much involved with my congressman, who was John Lewis. And John Lewis taught me a huge amount about good trouble. And I think that if I had not lived in the South, I would not have realized what a peaceful revolution integration was. And I think that it has taught me that some things can be done peacefully, that are major societal changes. And this is why I have great hope that we can make societal changes peacefully, rather than otherwise.

Laura Ettinger

[01:22:33]

I like hearing that, from someone with your experience. So, John Lewis's good trouble that you were engaging in: when you came to the South, when you came to Atlanta, did you expect that's what you were going to be doing: engaging in good trouble?

Nanette Wenger

I had no idea, because I had never lived in a segregated society. And it taught me a great deal about how important personal values are. And that if you have personal values that really are part of your core being, that—what is it somebody said? Somebody said that evil is not the opposite of good; indifference is. And that essentially told me that I could not be unresponsive to this.

Laura Ettinger

What about how you were perceived as a woman, and a woman doctor in this community, coming into the Atlanta medical community? A New York doctor. A New York Jewish woman doctor. You know, all that intersectionality there. How were you perceived?



Nanette Wenger

[01:24:06]

Well, I think I was viewed as having cut my teeth on the civil rights issue. And after that, being a woman became less significant. And it was sort of fun because my husband and I would walk into the hospital, and most of our trainees at that time were from the South. We hadn't begun to become as global as we are today. And they would say: "Good morning, Dr. Wenger, ma'am, Dr. Wenger, sir." And that was the way we were greeted, but originally, they didn't have any idea of how to treat me because I was a faculty wife, in addition to being a woman physician. But I think that I was good at patient care. I earned my spurs, and there was just never any challenge, and I gradually found people coming to me for advice, coming to me to join, to participate, etc. I must have been on 200 university committees over time, and ended up chairing a number of them. I ended up, I think, contributing to the university as well. Because when I was elected to Faculty Council, I was selected to chair the Faculty Life Course Committee. And I was able to introduce into the faculty handbook the concept of maternity leave, which had never existed at the university. And once it became possible for faculty, then it gradually trickled down to trainees and other staff. I was very involved in the establishment of what has become an institution at Emory, and that is the Emeritus College, which is the group of emeritus physicians who meet together and who contribute a great deal on a voluntary basis to university life. So that I think there are just a number of things where I think I've made my mark on the university by some of the things that my committees have done. And then, you know, when somebody said, "Can you run an organization?" Well, you know, I run committees, I run this, and to get this through the Faculty Council and University Senate, Board of Trustees, etc. took some doing, but it happened. That's really the important thing. It took a while, it took a lot of persistence, a lot of one-on-one discussion of: "Why is this necessary? We've never had this before." And I think that some of what I've done was recognized because during my latter years on the Faculty Council, the Board of Trustees of the university, not just the medical but the university, asked to have some members of the Faculty Council involved as non-voting members of the Board of Trustees, and I was one of the people selected to work with a committee of the Board of Trustees. And I was assigned to the Buildings and Grounds Committee and laughed at it, but it turned out that it was absolutely critical, because this was the time that we were building the new Emory University Hospital, and it was the decision of where it was to be built, and how it was to be built, and the traffic approaches, etc. And of course, I was able to provide the patient approaches of what patients would need in a new hospital, and their access to ambulatory and inpatient services. So it ended up that I was a very important part of that committee, although buildings and grounds was certainly not my area of expertise.



Laura Ettinger

Fair enough. Can we just go back for a moment? This Faculty Life Course Committee, where you said you established maternity leave, initially for faculty, and then it sounds like for staff at Emory. What year was this?

Nanette Wenger

I'd have to look it up, but I think it was in the late 1970s.

Laura Ettinger

[01:29:04]

Wow, okay. Fantastic. Speaking of that, you have three daughters.

Nanette Wenger

Yes.

Laura Ettinger

Right. And, so they were born early in your time at Grady, right?

Nanette Wenger

Yes. And there are five years among my three daughters, so I had them all when I was very junior faculty. And I was very fortunate to have very healthy pregnancies. And, of course, physicians didn't know anything about working women. And my OB/GYN made the arbitrary decision that I could continue to work as long as I didn't gain more than 20 pounds. Now, of course, that would not be any of the recommendations, but I worked until the week before I delivered. And, of course, there was no maternity leave. So what I had done is I had saved up vacation, a week, my vacation time from the previous year. And I took one week of vacation time, full-time, and then my second week of vacation time, half-time. But you have to remember that I was 15, 20 minutes from my home to the hospital, so that I could go home to pump because there was no portable pumping. And I had the luxury of having a full-time nanny for all my children and full-time household help. So things happened.

Laura Ettinger

Wow. And by the way, just putting this on the record here, you were talking about pumping breast milk, that you were going back and forth to be able to do that. How were you treated as a young, again, woman physician, married to a fellow physician, with young children? Did that have any effect on how you were treated, either by your colleagues, or by patients, if they knew?



Nanette Wenger

Most of the patients really either were unaware or didn't care. They were interested in their medical care, and in what I could do to take care of them. But I was willing to cover for people when they wanted to play golf on the weekend, so that they would cover for me when I had to be the room mother at nursery school, or what have you. And it was simply about negotiating. And I learned that it was not a shame, but it was very appropriate for me to want to be involved with my children's life, particularly at nursery school, and to say, "I have to do this; what can I do for you in return?" And it always worked out. I never got on the golf course. I never got to play tennis, but I got to be room mother, and what have you.

Laura Ettinger

And what about you and your husband? What did you end up having to work out [with] these two important careers? As you're having children, you said that you had a full-time household nanny and household help, which I'm sure made a huge difference, but were there things that the two of you had to work out as you were figuring all this out?

Nanette Wenger

[01:33:15]

Oh, we had to work out our call schedules, and we always had call schedules so that both of us were never on call the same night. So that if we were called in, there was always someone at home. That was pretty easy, because, again, he was in charge at VA, and the call schedules weren't that ardent, because at that time, there wasn't that much that could be done or needed to be done that night, that couldn't be done the next morning. Medical care was very different, and not that much occurred at night. I'm not sure this applies at all to the people who are in training today, where night call is really a very important part of training and of junior and senior faculty responsibilities. Very different.

Laura Ettinger

Interesting. Okay, interesting. And just going back, again, you said your daughters are within five years, so late 50s through early 60s, right, is what we're talking about here.

Nanette Wenger

[Shakes head to indicate yes.]

Laura Ettinger

Are there other things you'd like to say about your early years at Grady, being, again, the founding director of the Cardiac Clinics in 1960, and then I know you served, as I saw from your CV, you served as director there until 2020. And we've been focusing on your early years at



Grady and in the Atlanta medical community. Is there anything else you want to say about that time?

Nanette Wenger

Well, just that it was very exciting, because new problems appeared as new management and new therapies appeared, and there was the opportunity to address them, so that things never got boring, and there was the opportunity just as medical care grew, to have the care system grow. And I don't think a month went by when something new had not come onto the scene, that we had the challenge to decide how we were going to use it, what we were going to do, how we were going to work it into our system of care, and how we're going to do the teaching and training that is really a very important part of the academic mission.

Chapter 4

Research Beginnings and Themes

Laura Ettinger

[01:35:47]

Alright. I see we have about 15 minutes left today, and we'll do another session, so I think what I want to turn to now for our last 15 minutes a bit is your research beginnings, because I know you began contributing to research very early in your career, and I read that you have authored or co-authored over 1,700 scientific and review articles and book chapters, which is a number that is mind-boggling. What were your first research interests?

Nanette Wenger

Well, the first major research was the cardiac rehabilitation, and that was a federal grant that continued for a number of years, and that really provided funding that allowed us to do the things that we wanted to do, and to establish this as a part of cardiac care. So that was one of the things. Then we did one thing that was really fun, and I ended up getting a grant for stadium coronary care. The Turner Field, the original Atlanta baseball stadium, is just a stone's throw from Grady Hospital. And people were beginning cardiopulmonary resuscitation as emergency care, and I was involved very much with the Georgia Heart Association at the time. I think I was an officer already. And we got the idea of saying, here was a new stadium being built, and the stadium had ramps all around it. And could we get something where we could have an emergency care system? And we set up in the first aid station, an emergency care system and equipped a golf cart with a stretcher that could go around the stadium. And over the weekend, the Heart Association trained all the stadium employees in CPR. And, of course, it made the front pages of the newspaper because on Saturday, there was not much news, and people were very excited about it. The Heart Association was excited, the hospital was excited, the stadium was excited, and within the first few weeks of the stadium opening, there was a cardiac arrest. And it occurred not in the stadium, but outside the ticket taker's office. But the ticket taker had been trained in CPR and provided CPR until the emergency medical arrived, and the patient survived and was taken to Grady Hospital, and a film was made about it that was shown on local television, etc. So it was just sort of a venture, and obviously the stadium subsequently took this over in terms of emergency care. But, for a number of years, our trainees were doing both rotations at the ballpark and at Georgia Tech for football. So we were providing emergency care, and they got free tickets. And the fellows loved being participants in the research. And we had a number of impressive saves over that time.

Laura Ettinger

Really interesting. How did you learn how to ask research questions and design studies? I mean, now, obviously, it's been decades, but how did you first learn how to do that?

Nanette Wenger

[01:39:45]

Well, it was an answer that I wanted, very simply. It was an answer that I wanted, and I said, “Is there a way to get that answer?” and that’s the basis for designing a study. And, subsequently, because of my interest in research, I was involved in a lot of the multicenter studies that cardiology had. And I was fortunate early on to be involved in one of the early preventive studies, the Coronary Drug Project, which was a study just of men. And I was co-PI for the Grady site and therefore got to go to the meetings. And the prestigious investigators who led this put me on the publications committee. I don’t know whether it was because they thought I could make coffee, or because they thought I would take minutes, and I do neither of them. But nonetheless, I was exposed to some of the people who did some of the most important writing to the medical community because what the Coronary Drug Project showed was that most of the therapies that were currently being used to treat coronary disease in men either were dangerous or were not beneficial. And the question is: how do you take this message to the community? That what they’ve been doing for all these many years is bad and has to be changed. And some of the senior people who had enormous writing skills, I had the privilege of working with them and learned how to write. And that has helped me subsequently; I was one of the associate editors for the first umpteen issues of the textbook, *The Heart*, again, because I could write, I could read, I could proof, etc. And I find that writing comes very easily. And I’ve been able to mentor people in writing. And now, almost any time I’m asked to do a monograph or what have you, I will get a junior faculty member, or sometimes even a senior trainee, to either be first author or co-author with me because it gives them experience; it gives me the opportunity to teach them how to write. And I think I’ve taught a number of people who’ve gone on to fairly prestigious positions and done writing of their own.

Laura Ettinger

Amazing. I certainly, in preparation for this interview, saw videos with a number of people who were clearly so grateful to you for that kind of thing. Sounds like you’ve been an incredible mentor. What about—and we can start this now and continue it in our next interview session—but I think about various themes that would later define your work. You’ve mentioned cardiac rehab—also, of course, women’s heart health, cardiac care and aging. Looking back, what do you think were the earliest seeds of those themes, like women’s heart health, for example?

Nanette Wenger

[01:43:28]

Well, I was seeing patients in the clinic and seeing women who were in the hospital, with heart disease.



Laura Ettinger

Uh huh.

Nanette Wenger

And I had been trained and taught that heart disease was a man's problem. Obviously, rheumatic disease and mitral stenosis was recognized as a problem for women, but coronary disease, the major killer, was considered a man's disease. And yet I was seeing women with heart attack at the hospital, and seeing women who had chest pain in the clinic. And going to the literature, there was absolutely nothing that could help me discern what to do, and all of the studies involved men. And with my usual persistence, I went to the Heart Association, who told me it was not relevant, and to the American College of Cardiology, who told me it was not important, and to the National Heart, Lung, and Blood Institute with the same response. But I continued to say, "There are women living with heart disease, and we have to get information about how they present, how to diagnose them, how to treat them, etc." And finally, after a number of years, the people at the National Heart, Lung, and Blood Institute—I think it may have been the National Heart Institute at the time, I'm not sure blood and lung had been added yet—they decided to hold a workshop, and it was my privilege to share that with Leon Speroff and Barbara Packard. And we defined what was known and the knowledge gaps. And the knowledge gaps were really the most important. But you know, the time from a workshop to a conference is usually about two years. This one was six years. But when we finally had that conference, again, it was my privilege to chair it with Drs. Speroff and Packard. And the manuscript that came out from that conference was the basis for the *New England Journal of Medicine* article.² And at that time, the *New England Journal of Medicine* editors told me that in their experience, it was the first time that coronary disease and women had appeared in the title of an article in a major journal. And I think that this started the questioning, and people looked at the knowledge gaps and realized that the knowledge gaps applied to the patients they were caring for. And I think this is what started the interest. And obviously, it has grown and grown. And someone showed me a quote from Emerson. I don't think it was my inspiration, but I think this is what's happened. Emerson said, "Do not take the path well-traveled. Go rather where there is no path, and leave a trail." And I think this is what has happened. And over time, this trail has turned into a major information highway, just because other people have looked at the questions and began to seek answers. That to me, I think, is probably the most exciting thing that I've seen. And, you know, everyone has a leadership style, and I think mine is different from most people. Most people lead from top down, and I tend to lead from bottom up, meaning that what I like to do is to get people enrolled in my vision. And once they're enrolled in my vision, to say, "Take off and go in the directions that interest you." And I think this is what's happened with women's heart health and women and heart disease. It has been so gratifying to see. There are now books on women and heart disease.

² Wenger, N. K., Speroff, L., & Packard, B. (1993). Cardiovascular health and disease in women. *New England Journal of Medicine*, 329(4), 247-256.



Laura Ettinger

[01:48:05]

I think this is a perfect place to end our session today. I cannot thank you enough, Dr. Wenger. In our next session, we will continue to talk about some of the major contributions you have made in women's heart health. We'll start back with that again, because I feel like we've just started there, as well as cardiac rehabilitation and geriatric cardiology and leadership, right? You were just talking about the fact that you have a different leadership style than many people. And we'll also talk more about your personal life and legacy. Is there anything you'd like to add before we pause for today?

Nanette Wenger

No, I think this is a very good stopping point, and you really ask very much the right questions that give us a continuous story, and I appreciate that.

Laura Ettinger

Oh, well, thank you very much. I can't tell you what an honor it is to be talking with you today, and I look forward to continuing this in a couple of weeks.

Nanette Wenger

Okay, very good. Have a great holiday. Bye.

Laura Ettinger

You too. Thank you, bye-bye.



Nanette K. Wenger, MD

Interview Session Number 2: December 22, 2025

Chapter 5 A Pioneer in Women's Heart Health

Laura Ettinger

[00:00:15]

Okay, my name is Laura Ettinger, and I am happy to welcome Dr. Nanette Wenger back to the Oral History Project, run by the Women in Medicine Legacy Foundation. The foundation interviews the Alma Dea Morani MD Renaissance Woman Award winners, and Dr. Wenger is the 2023 winner of that award. So I am delighted to be picking up where we left off at our last interview session. Our interview today is taking place on Monday, December 22nd, 2025, with Dr. Wenger at her office at Grady Memorial Hospital in Atlanta, and me at my office at Clarkson University in Potsdam, New York. So Dr. Wenger, I want to return to your pioneering work in women's cardiovascular health. At the end of our last interview, you explained that you had always been taught that heart disease was a man's problem. But at Grady, you were seeing women at the clinic who had heart problems, and you went to the scientific literature, you said, and you found nothing about women and heart disease—that all the studies involve men, so you pushed. You pushed to change this. And I want to dive much more deeply into your push. It sounds like you had to push over and over again to study women's cardiovascular health. So, we can start with: what were the early obstacles to getting the field to recognize the importance of studying cardiovascular disease in women?

Nanette Wenger

[00:01:58]

Well, the background to this is that I was seeing patients in my clinic. I was seeing women who had heart disease, who had chest pain, who'd had a heart attack. I was seeing women hospitalized, first in the hospital, and then subsequently in the coronary care unit. But when I went to the literature to say, "How do I treat these women?" there were no data. I consulted my colleagues at the Emory University School of Medicine, who uniformly said, "Well, there's no difference." And that was the assumption. And no one was ready to query whether that was correct. We were beginning to get tests and drugs to treat heart disease. This was almost the renaissance of cardiac care for coronary disease. But all of the studies were studies in men. We were beginning to address preventive interventions, things like the Coronary Drug Project. Again, all men. So trying to find some data, and there was nothing in the literature or in the standard textbooks. I went to the American Heart Association, who told me that it was not a problem; the American College of Cardiology, who said, we have the data for men and did not see women as a problem; and then went to the National Institutes of Health—and early on, it was



the National Heart Institute; later on, it became the Heart and Lung Institute—blood hadn't been added yet—and again, went to them, who said that was really not a priority area. Well, it was a priority for me. And I continued to write to the various people in charge of the groups, and I think, finally, someone listened and in the early 1980s, developed a workshop that it was my privilege to lead with two colleagues, and it was an exciting workshop. And, you know, typically, the time between a workshop and a conference is two, possibly three years. This was six years before the conference. evolved, and again, it was my privilege to chair that conference with Drs. Leon Speroff and Barbara Packard. And the conference essentially followed the format of the workshop, defining what was known about women, and particularly coronary heart disease, but some about other heart disease, and most importantly, to outline the knowledge gaps. It culminated in a manuscript that was published in the *New England Journal of Medicine* in the late 1980s. And at that time, the editor of the *New England Journal* said to me, “You know, I believe this is the first time that a manuscript that links coronary disease and women in the title has been published in a major journal.” And it did increase interest. Again, the *New England Journal* has powerful influence on the clinical and the research community. And many research scientists in the basic sciences and clinical sciences looked at the knowledge gaps and began to work. You know, someone quoted to me a quote of Emerson, and I don't know if I've said that to you before.

Laura Ettinger

You did, yeah.

Nanette Wenger

[00:06:14]

But this is really what it is. I've gone on a trail. And what has happened in this trail that I walked is that it became an information highway. I enrolled a large number of research scientists from many, many areas in my vision, and each of them took off in a direction, and we began to get data. But this, really early on, involved only the people who saw this as an interest of theirs. Because they were either women, or because there were women in their lives, or because there were women in their laboratories. But it did spread, and we began to see data emerging about women. And as the data emerged, the differences became evident. You know, years ago, the biggest medical meetings for cardiologists were the American Heart Association and the American College of Cardiology. And when I look back at the programs for those meetings, looking at the index, to say, “Was there anything that said women, or pregnancy, or hormones, or anything that might touch this area?” There were no entries. And beginning in the 1990s, that emerged. With that, we saw a number of groups of people emerging with particular interests: the Women in Cardiology group both within the American Heart Association and the American College of Cardiology. And obviously, as women in cardiology, we had particular interest in our women patients. But this was not solely, although predominantly, an effort of women. There

were very many men involved, in this research, and we began to get data. And to summarize it very briefly: there were emerging data that showed that the women responded differently to physiologic, sociologic, psychological, socioeconomic challenges, and they were differences between women and men in the basic physiology, in the pathophysiology, epidemiology, preventive interventions, diagnostic tests, clinical outcomes, long-term therapy, and that was both for medical therapy and for the emerging interventional therapies, surgical and medical. So we began to see differences. And there was an effort to say, do we report these? What is the necessity for reporting them? And for a number of years, there was a consensus among the journal editors of the prominent cardiology journals to urge, not to require, but to urge the journal editors for clinical trials to report separately the data for women and for men, or to say there were no differences. What we tried to do, and the only place we really could have influence, were within the governmental agencies. And over the years, the National Heart, Lung, and Blood Institute suggested that the studies reported out of NIH report the data, both the basic science and the clinical science, differently for women than for men. And that was when some interesting information emerged. And that was that the basic scientists often did not know the provenance of their cells or tissues—meaning that, potentially, they were studying women's diseases in tissues from male animals, or cells from male animals, and that often, even the animal studies did not report whether the animals were male and female. And as most people who've done lab work realize, male animals are cheaper than female animals, at least in the rat population and mice population. And likely, they were the studies were being done on male animals. Over the years, the urging became more prominent, and in one of the Revitalization Acts for NHLBI, there was the requirement that the sex of the animals, tissues, cells, etc. be reported. Very recently, there was for the NIH, a requirement for the plan for a submitted request for a clinical trial and that was really population-based. To say, if you were studying a population, let's say just studying the differences between men and women, that your research plan had to include what you would do at a certain point in your recruitment if you didn't meet your recruitment goals. If you said you were going to recruit 50% women, and your recruitment was 20%, what were you going to do? How could you pause the recruitment of men? And what was your plan to recruit more women? And if that wasn't present, the trial could not even go through to committee. Now, in 2025, I'm not sure how that is being applied because: is that called DEI [Diversity, Equity, and Inclusion]? What are we doing, not just for men and for women, but for subgroups of women? Those women are not a homogeneous population, and there are huge differences between Caucasian women and women of racial and ethnic minorities. And the women of racial and ethnic minorities are particularly underrepresented in clinical studies. So, we will see how that application happens. There was a recommendation within the Food and Drug Administration. You know, if I have a drug, or if I have a device, and I go to the FDA with a planned clinical trial. And I say, FDA, if I do this clinical trial in this way, and I have significant results, are you likely to approve this? And FDA looks at it and helps say, well, will you approve it? Well, there were recommendations, but not legislation, that said there



should be a representative population for the group that would use the drug or the device. And if women are half of the population, obviously, there should be half of the women in the trials. And over the years, there were recommendations to industry, and recommendations can be followed or not, depending on your bent. And the bent was usually not, because it was a challenge to recruit women. And only very recently was the requirement imposed that if the drug or device was to be licensed for a representative population, that that population had to be represented in the trial. So now, or recently, the FDA would say to industry, if you want us to broadly apply this, you have to have that population. And there was some interest in the issue of the aged. That didn't go as far, but many of the geriatric organizations were saying if a population over age 80 is not in the trial, perhaps this should only be licensed for people under age 80. That didn't go anywhere. But again, the question is, what is the application of all of these recommendations and regulations under the new administration? Is this considered DEI? If it is, it's not going to be applied. But representative populations represent good science, and good science is the basis of good medicine.

Laura Ettinger

[00:15:17]

Oh. This is all fascinating. Thank you so much. I have so many follow-up questions, I'm trying to decide where to begin. Maybe I'll begin with this: why do you think others weren't seeing what you were seeing? It sounds like it took until the late 1980s, right, to have this workshop, this National Heart, Lung, and Blood Institute workshop, which then led to the conference, which then led to the publication of your groundbreaking article in the *New England Journal of Medicine* that talked about cardiovascular health and disease in women. So, but you were recognizing this stuff back, it sounds like, in the late 50s, early 60s, right, when you first came to Grady and saw—

Nanette Wenger

It was 60s and 70s.

Laura Ettinger

60s and 70s. Okay. So why so much resistance?

Nanette Wenger

Well, you know, we learned, and all of our senior colleagues learned, that heart disease was a man's disease, and the assumption was that if the prototype individual, which is a 60-kilogram white male, responded this way, that the whole world would respond that way. There was never a question of doing things different for pediatric patients, and pediatric patients were always studied separately. But no one really thought about geriatric patients and that they might have to be studied differently. And if men were considered the model, women were supposed to follow



suit. And it took a long time, and accumulating data, and particularly data showing that women had worse outcomes than men for all coronary events and for all coronary interventions. And even as we started to look at medications, one of the interesting questions that arose is: were women being over-medicated? In most drug trials, women have more adverse events. Now, is it that women are reporting more, or that they really have more adverse events? But if we look at the drugs that were removed from clinical use by the FDA for serious adverse events, they predominated in women. And very recently, someone looked at a trial of heart failure medications. Now, this wasn't a good research study. A research study is designed prospectively; this was not. This was a retrospective look at a heart failure trial, looking at the patients who took half of the recommended doses of the medicine. And the women did just as well with half of the dose and didn't do better with the full dose. The men did not do as well with half of the dose, and did better with the full dose. Again, not good science, but enough science to suggest that there are differences, and perhaps we have to do dose ranging studies in women.

Laura Ettinger

Interesting. And how recent was that study?

Nanette Wenger

Last few years.

Laura Ettinger

Okay, okay.

Nanette Wenger

It's a retrospective look at a clinical trial that was done.

Laura Ettinger

And going back to the National Heart, Lung, and Blood Institute workshop, which led to the conference, which led to the publication in the *New England Journal of Medicine*. You said it took six years from the workshop to the conference, which you said was very unusual. What did you have to do to push in that intervening time, and how did you do it?

Nanette Wenger

Well, there were people who were involved in the workshop, and obviously people who were involved in the workshop had some skin in the game. This was an area of interest for them. For many of them, it was Dr. Speroff, who was an OB/GYN, much of it was the interest in hormones. I think my interest was less in the hormone aspect, although it was obviously important, than it was in the other medical and interventional part. But we just continued to say,



“Where is the workshop?” to try to get it onto the calendar. And if I think something is important, and I think that I can contribute, I guess I have almost a bulldog mentality, and I continue with it. If it is important, and I think it is an important contribution to medicine, I'm just very, very, very aggressive about this.

Laura Ettinger

You—

Nanette Wenger

[00:20:48]

I get my colleagues to join me. And it's not really fighting a system; it's getting an entrenched system to move a little bit at a time.

Laura Ettinger

So, you mentioned last time the bulldog analogy, and you know, now you're saying that it's getting an entrenched system to move a bit at a time. That sounds like that requires an awful lot of patience. How have you remained patient when there has been so much evidence? And there was so much evidence that women's cardiovascular health and disease needed to be studied differently and treated differently.

Nanette Wenger

Well, I had so much else that I was in, that I was doing. I was involved in a number of clinical trials, many of them exclusively in men. I was doing a lot of medical writing, I was seeing patients, and I was looking at a number of things. I was still pretty actively involved in cardiac rehabilitation and some of the rehabilitation efforts. But I thought this was important. And as a matter of fact, during that time, I edited a book on heart disease in women with a co-editor from the United Kingdom. Actually, the book went into two editions. And I was doing things in the area, and doing a number of studies. So that I just had to keep coming back to this again and again and again. And I think I've discussed with you that my leadership style is very different from most—that most people who are leaders lead top-down; my leadership style is bottom-up. So, all that I think that I have to do is to enroll people in my vision, and then let them take that vision of studying heart disease in women, and do it in their individual way, and this is how the field expanded, so that people were looking at many, many aspects of heart disease in women, and some of that actually continues until today. If we look at cardiology, there are the standard areas of subspecialty in cardiology that are established at present, but the two new areas that are growing very, very rapidly address women, or predominantly women, and that is cardio-obstetrics—because we are seeing a disastrous maternal mortality in the U.S., higher than in any other industrialized nation—and cardio-oncology. That certainly involves both men and women, but one of the major challenges is breast cancer and its therapy. Breast cancer, the second most



common cancer in women, second only to lung cancer. We have so many fantastic breast cancer drugs, that women aren't dying from breast cancer anymore. They're dying with their breast cancer. But the sad thing is when I see a woman in my clinic and I say, congratulations, your breast cancer is cured, but you now have heart failure as a result of some of the radiation and chemotherapies that cured that breast cancer. So the cardio-oncology, because the oncology is having such unprecedented success, that is a very rapidly growing area.

Laura Ettinger

And it sounds like you're saying that you, through your leadership style, have helped to encourage a lot of people to explore all these different areas within cardiology, like cardio-obstetrics and cardio-oncology.

Nanette Wenger

Yes, yes.

Laura Ettinger

Okay. So, again, so many interesting things that you've said. Again, going back to the early 90s, when this publication came out, and the conference had taken place, how controversial were your conclusions?

Nanette Wenger

[00:25:35]

I'm not sure they were controversial. I expect they were unanticipated, because there were such substantial differences in so many areas between women and men. But the good clinician, looking back at the patients that he or she had treated, realized that the women were not doing as well as the men—that after myocardial infarction, after coronary bypass surgery, after percutaneous interventions, women were not doing as well. They were having more complications with the procedure, their outcomes were not as good, their bleeding complications were greater, and it was not just in the coronary area. It was in the stroke area. And looking at the stroke registries, they saw that a smaller percentage of women with an acute stroke were transported to the hospital by EMS. There was a longer period of time before the diagnostic study and then much longer period of time before any of the new, exciting thrombolytic and other interventional therapies. So, why was anybody surprised that the stroke registry showed that more women than men died within 40 days of a stroke hospitalization? We saw that in so many other areas, that with peripheral arterial disease, which was once thought to be a man's disease and now seems slightly more prominent in women, that fewer women were treated with guideline-directed medical therapy, and fewer of the appropriate women received interventions. We saw with heart failure that typically, when the pumping function, when the ejection fraction is reduced below a certain point, a defibrillator is recommended. Why is it that fewer women



than men receive defibrillators? Is it the woman, or is it the provider, or is it the interaction between the two? And for many, many other areas, there are comparable differences. And importantly, the differences have not diminished over time. That's really the concern that we have.

Laura Ettinger

So, yeah, I want to ask some questions about that, too. Maybe I should ask a question that's quite basic, but what are the symptoms of heart disease that women, in particular, should be paying attention to?

Nanette Wenger

Well, there was an excellent scientific publication on chest pain that came out a few years ago and very important, because with heart attack, that is often the initial presentation of coronary disease, and then no warning. In many, many women, they have chest pain before their heart attack, which means you have the opportunity to avert that myocardial infarction. But what we've seen is that chest pain was often ignored in women, and particularly so in younger women, and they were told it wasn't their heart. And of course, women are, as I've said many times, adjective-adverb people, and men are noun-verb people. The men will say, I have chest pain. The woman will say, I have pressure, heaviness, sudden shortness of breath. And I have pain that goes into my neck, jaw, shoulders, back, abdomen, and sometimes the multiplicity of symptoms that women often report obscure the component of something going on in the chest. So that very many women are underdiagnosed. So that they do not realize that their symptoms are related to their heart until they have some major event, an acute coronary syndrome.

Laura Ettinger

Yes. Okay. And what would you say are misconceptions about women and heart disease today that remain most dangerous?

Nanette Wenger

Again, I think the misperception that heart disease is a disease of old ladies. There is a very interesting study on women who present with an acute coronary syndrome to the emergency room. And for women over age 65, and the 65 was arbitrary because it was the Medicare population.

Laura Ettinger

Right.



Nanette Wenger

[00:30:46]

Women in the Medicare age group are looked at as promptly and sent to the cath lab as promptly as are men. Younger women, here defined as below age 65, had a longer time than men before their first EKG, their first troponin, the recognition of an acute coronary syndrome, and the trip to the cardiac catheterization laboratory. And as we know, time is muscle. So if women go later to the catheterization laboratory, it should not be surprising that they may not do as well.

Laura Ettinger

And to what extent do you think public awareness has changed around some of the kinds of things you're talking about with regard to women's cardiovascular disease?

Nanette Wenger

Well, you know, in the early 2000s, and I think it began about 2004, there were two major public education efforts: The National Heart, Lung, and Blood Institute's Heart Truth Campaign, and the American Heart Association's Go Red for Women—so much so that now the red dress is the accepted symbol of heart disease in women. And the purpose of the campaigns was to teach women that the female heart is vulnerable to heart disease, and to teach them how to respond to symptoms of a heart attack, and to teach them about their heart health, and the things that were necessary for heart health. Now, what happened is that by about I think 2009, when we published the first report, there was an increase in awareness from about 32% to the mid-50s, I think it was 56%. And we reported, oh, this was great, look at this increase in awareness, it's almost doubled. Well, I viewed that as a glass half full, because if only 56% of women were aware, almost half of women were not. And we should have persisted in those education campaigns, but we didn't. But when we look back in 2019, looking at the same representative populations, we found that we had lost almost all of the gains over the next 10 years, and that most of the women did not recognize the symptoms of a heart attack, and that lack of recognition was highest among the most vulnerable population, younger women and women of racial and ethnic minorities. So we now have 10 years' worth of catch-up to do, catching up to something that is really not optimal, so that education is really of the utmost importance, because if women do not perceive themselves to be at risk, they will not heed any preventive interventions. But we have today an important tool that we didn't have in the year 2000. We have social media. And social media now give us an opportunity to reach so many of these vulnerable populations if we can get public influencer to propose that message. And this has been done, actually, by some of our South American neighbors. The women in cardiology in Latin America have put together a program addressing maternal mortality. And what they've done in most of the Latin American countries is to have one day that was called Bump Day for the bump of pregnancy. Now it has a much more elaborate Spanish name. But on that day, there is widespread public education about the importance of coming heart-healthy to a pregnancy, the importance of coronary risk factors. You



go to any shopping mall that day, and there are educational materials for women about heart health. There are screening tests. All of the stars of sports, stage, screen, radio, are sending messages there. And in a number of the countries, they have worked with governments so that there is some government funding for the screening and for the educational programs. In Argentina, that day is legislated into action, and there is government funding for some of this. So, you know, so many of the things that we've done in the Heart Association over time, we have translated into Spanish for our Latin American sisters. And what I've said is now we have to take this Spanish and translate it into English and use it here in these United States.

Laura Ettinger

[00:35:55]

So again, so many interesting things here. The loss that you talked about between 2009 and 2019, why such a loss?

Nanette Wenger

I think there are multiple factors, and that is that we were not as intensive with the educational campaign. There used to be so many Red Dress events. And we are now, once again, beginning to step them up. But we have to reach a more widespread audience. We have to reach the younger women who were never addressed in prior campaigns. We have to have programs that address racial and ethnic minorities, so that communities of faith are really important in terms of their ministry outreach to women. And what we are learning is we have to address the women where they are. And there was a fascinating study done in men that was reported a few years back. It was called the Barbershop Study. And what was done was that in the barbershops that were frequented by Black men, they had a pharmacist. And the pharmacist there discussed with the men, while they were there, the importance of blood pressure control, the importance of taking medicines, and of taking medicines regularly. And what was seen is that just that barbershop discussion increased adherence to medication and improved outcomes. Where are comparable programs in women's nail salons where they spend a lot of time in the women's hairdressers? This is an opportunity to go to women where they are, to get the people involved who are trusted sources and do education. But women will not come to us for education, so we have to go where the women are. And I think prime targets that remain unaddressed in the community are the nail salons and the hairdressers.

Laura Ettinger

And another follow-up question I have has to do with, you know, you've mentioned this a number of times, how issues of race, socioeconomic status, access, how those intersect with the underdiagnosis of heart disease in women. Can you say more about that? And you're also talking about your concern that with the current administration, that there might not be as much focus in those areas.



Nanette Wenger

Well, what we realized, actually, both for women and for men, is that your zip code may be indicative of your heart disease risk. And we see that in most major cities. And that really addresses the social determinants of health. It addresses housing, it addresses access to food, access to medical care, air pollution, smoking behaviors, all of the social determinants of health really are encompassed in the DZIP [Default Zip Code of Residence] code designation. So that we're seeing, within most of our major cities, the equivalent of a third-world country.

Laura Ettinger

And can we also go back to what you were saying earlier about wondering if certain requirements with regard to research will be perceived as DEI, and therefore unacceptable by the current [federal government] administration. Can you say a little bit more about that?

Nanette Wenger

I think there is a widespread concern among research scientists that if we do clinical studies, we have to involve a representative population. The research studies, in order for their outcomes to be applied to a representative population, have to encompass that population. Now, how we do that with a restricted lexicon that we have today is going to be challenging. But if we are investing money in research and don't have as research participants representative populations, then we selectively disadvantage those populations.

Laura Ettinger

Yeah, boy. What do you hope women's cardiovascular research will look like in 20 years?

Nanette Wenger

[00:41:06]

I would like to see health equity, and that doesn't mean that the treatments are the same. Because that's equal, that's not equity, but that the outcomes are the same. And this involves equal access, equal participation, equal benefit. And those are the areas that have to be examined very, very carefully. And just saying we're going to do things equally does not necessarily provide equity.

Laura Ettinger

And how do you think we get to health equity, especially in the current climate that we're in?

Nanette Wenger

The challenge is for our unrepresented or underrepresented minorities, for our impoverished populations, and if there is limitation of health access, which is what we're seeing right now. That is the first step to inequality in outcomes and inequity in outcomes. Plus, inequity in access



to medical care obviously will not produce good results. So much of this is not in the strictly medical sphere; it's in public policy. But it is incumbent on health professionals to become involved in the political scene that relates to healthcare policy because we can be the strongest advocates for our patients; our professional organizations can be the strongest advocates for our patients. And that is happening among many of the cardiology professional societies. That involves not only physicians, but nurses, nurse practitioners, physician assistants, and the whole sphere of individuals who care for patients with heart disease.

Laura Ettinger

A related question to some of what you've been talking about is: when you were, back in the 1960s and 70s, coming to understand that heart disease was presenting differently in women than in men, and that there wasn't any literature on this—you in the 1960s and 70s, what might you be surprised by today with regard to both research and treatment of cardiovascular disease in women?

Nanette Wenger

The research is progressing, and we're seeing more and more women in clinical trials. But what we're seeing, sadly, is that it is the middle-aged women who have good representation in the trials. The young women are substantially underrepresented, and the elderly women substantially underrepresented. And in the elderly population, women predominate so that they should be the ones that we certainly study as we study whatever the disease is at elderly age. What I'm surprised at is that very, very many people who run trials have yet to learn strategies for recruiting women. And there are systems now of designing trials that encourage the recruitment of women. Many of them are the decentralization of trials so that the study sites are nearer to the women; they don't have to travel to the major medical center. There are so many wearables that can transmit data so that we don't require people to come for visits. There are so many ways that we can use telehealth in the conduct of the trials that will encourage the participation of rural women, and as you know, rurality is an indicator of risk, simply because of the limited health infrastructure in rural areas. So, there are trial designs that can encourage the participation of women. And we really have to encourage clinicians to talk to their women patients about clinical trials as they talk to their male patients.

Laura Ettinger

Again, what's stopping that? In 2025, what do you think is stopping clinicians from talking to their women patients about clinical trials in, you know—



Nanette Wenger

[00:46:10]

I expect that they realize that so many women patients have challenges, either care challenges for children, or for older individuals, or work-life challenges. And the question is adding something else, but not realizing that women really are eager to participate, and if the format of the trial will encourage them to participate, they will do that. I have had very many women involved in trials that I have either led or participated in, and some of these were long trials, not just six months or 12 months, but some of these were seven-, eight-, nine-year-long trials. And to a person, the women who did participate said, "I want to have, for my daughters and granddaughters, the information that's available for my sons and my grandsons." And women do want to participate and to give back.

Laura Ettinger

And a question for you about clinicians, about physicians. This isn't about research, but how can we better train physicians of all gender identities today to recognize sex-specific presentations of cardiovascular disease? And how do you think we're doing with that today?

Nanette Wenger

Well, it is in the clinical practice guidelines. I had the privilege of representing North America on the European guideline on acute coronary syndrome. And we have a specific picture and section on presenting symptoms of acute coronary syndrome for women and for men, with pictures and with items. So, we are beginning to get this into the scientific literature. And I expect more people recognize it. Perhaps the recognition is less in the acute care setting than it is for clinicians who care for women patients routinely. But we are beginning to make progress in that area.

Laura Ettinger

Okay, okay.



Chapter 6

A Leader in Geriatric Cardiology

Laura Ettinger

[00:48:29]

A few minutes ago, you mentioned that elderly women are often left out of—I think you were talking about the research areas—can we talk about your work now in geriatric cardiology? I've read about your extensive work in that field. Can you talk about how you developed your interest in that area?

Nanette Wenger

Well, I expect it's almost an extension of what I was doing with the heart disease in women, because as we've just discussed, women predominate in the elderly population, and even where they don't predominate, they are often the major caregivers or the decision makers about care for their household. So that as our population ages, and as we have in the U.S., far better insurance coverage for our elderly patients because of Medicare over age 65, there is better access to care over age 65 than there is below. And even if Medicare doesn't cover many things—it does not cover medications, unless there is supplemental insurance—it does cover much of the access to care. And we have the ability to get data that gives us sex differences from the Medicare database, which is excellent and extensive. And looking at the Medicare database, we see that the women don't do as well as the men. And studies of the Medicare database tell us a bit about access to care, and whether older patients, comparing Medicare with non-Medicare patients, are offered as many interventional options. Probably one of the major advances that we're making in geriatric care is something called PPO, patient-preferred outcomes. And patient-preferred outcomes are often not the endpoints that are looked at in clinical practice guidelines that look at morbidity and mortality. And in all of the studies that have examined patient-preferred outcomes, rising to the top are independence, mobility, lack of hospitalization, mentation. So, if you ask patients what they want, those are some of the outcomes that we have to begin to look at in our clinical trials in the older patients, to see if they're meeting what they want. And very often, when I'll recommend an interventional approach to my elderly patients, I will talk not about the mortality benefit, because that is less of concern to very many patients, but: will this keep me out of the hospital? Will the symptoms decrease? Will it allow me mobility? Will it allow me to do what I want to do in my daily life? So, quality of life issues become really important at elderly age. And we have to begin to recognize this as we design trials. Certainly, they should not be the primary outcome of trials, but we can easily collect those data as secondary outcomes without too much participant burden.



Laura Ettinger

Hmm. So, I've read that you served as president of the Society of Geriatric Cardiology, that you were editor-in-chief of the *American Journal of Geriatric Cardiology* for, I believe it was over 15 years. What are the things you're proudest of in terms of your contributions to this field?

Nanette Wenger

[00:52:42]

Well, I expect that I have helped lead the recognition of geriatric cardiology as a specialty, and I've been an advocate for research in geriatric populations. I've participated in guidelines addressing specific subsets of patients, and I always see that geriatric patients are at least addressed in those guidelines. And there is an online textbook in progress from the European Society of Cardiology, and I've been invited to edit the geriatric cardiology section and have recruited an outstanding cast of characters to write the chapters for me. And most of those chapters will be due sometime next year, and hopefully it will be a contemporary publication, because the last issue of that textbook, I think, was 2013, so quite outdated. And that will provide guidance for the clinical community.

Laura Ettinger

Fantastic. Now from someone who's not an MD, that the idea that geriatric cardiology would not be a focus seems crazy. I'm still trying to understand how that was ever the case. Why there wasn't a focus on an older population with regard to cardiology?

Nanette Wenger

Well, the patients stay with their clinicians, and most of the physicians will say, "I treat geriatric patients." But the question is, should the treatments be the same as they are for younger individuals? And there's so much of an emphasis that is less on chronologic age and more on biologic age, so that there are many determinants of geriatric health that we don't look at as much, certainly the 5Ms, the mentation, the mobility, etc. And these are really important to the geriatric patient so that doing the same care year after year is probably not optimal care at age 80 as it was at age 60.

Laura Ettinger

Okay. And can you just say, I mean, I've read about this, but just so that we have this here, the difference between chronological versus biological age?

Nanette Wenger

The chronologic age is obvious. Biologic age really relates to a number of features that relate to systemic health. And it involves all the organ systems. And we really don't have a single measure of biologic age. And a number of years ago, I wrote a paper for one of the journals called, "Do



We Need an APGAR Score for Older Adults?”³ And you know, when babies are born, there are a few things that people look at immediately, and they give an APGAR score. Well, I think when an older patient walks into a clinical setting, there are a number of things that can be looked at. Are they walking independently? Do they respond to questions? Can they sit and stand? What are other aspects of mentation? So, there are very few simple things that I would hope that someone would develop a score that could be used, perhaps, every year and might be fairly good surrogates for biologic age.

Laura Ettinger

That's fantastic. So in geriatric cardiology, in addition to someone developing an APGAR score for older adults, or the equivalent for older adults, what changes do you hope to see in the coming years in the field of geriatric cardiology?

Nanette Wenger

[00:57:16]

Again, I want to see some of the results of clinical trials in the elderly, incorporating those endpoints that are valued by older patients. I hope to see more clinical trials involving elderly patients, because if you look at some of the clinical recommendations, they say, this is recommended to age 80. The reason is that there were no patients over age 80 included in the trials. Well, if I have medications that are working in an 80-year-old patient, I'm not going to stop them just because they turned 80, but I really would like more data to know if they are equally effective, or possibly if they're more risky. So, we are seeing so many more of these patients. Probably the major interests in the elderly population came with the development of the catheter aortic valve replacement because aortic stenosis, narrowing of the aortic valve, is a disease that predominates at elderly age. It progresses more rapidly at elderly age. And early on, the only option was surgery, which was high risk and limited benefit. And the availability of this transcatheter procedure, where patients came into the hospital, could not walk without symptoms from their room to the nurse's station, and two days later, were ready to go home without symptoms. And some of them saying, “Why do I have to go to the emergency room in a wheelchair to leave the hospital?” It was really dramatic. But it taught us, the interventional cardiologists, so many things that we have to look at at elderly age. And they determined that frailty was one of the features that predicted an adverse outcome. And there are a number of indices of frailty, and the Fried index is probably the one that's most commonly used. But the question is: is there something that we might be able to do to older adults to precondition them? Or is it too late? Or is it that for older adults, does maintenance of mobility and maintenance of body strength and muscle tone, is that going to be important for their total health? Everyone now is looking at frailty as a variable. And I'd like to see more research done into the prevention of

³ Wenger, N. K. (2019). Do We Need an Apgar Score for Older Adults?. *Circulation*, 140(12), 973-975.



frailty in older adults. Is physical activity an important feature? How does this apply to nursing home patients as compared to patients living independently? Are there medications? Does diet make a difference? There are 15 variables I can list, but there are people who are studying it and nothing really that exciting has come out yet, save for the fact that maintenance of physical activity is really important. So that's an educational component. And maintenance of involvement seems important for mental acuity—interaction with individuals, not the situation that encourages loneliness or lack of interaction. But these are soft endpoints that need to be studied very, very carefully.

Laura Ettinger

Thank you, thank you.



Chapter 7

A Trailblazer in Cardiac Rehabilitation and Prevention

Laura Ettinger

[01:01:30]

I want to turn to a different area that we talked about quite a bit in your first interview session, and that is cardiac rehabilitation. In our last interview, you explained that you helped build the field of cardiac rehabilitation from the ground up. You talked about setting up an ambulatory exercise program at Grady Memorial Hospital, and I wanted to find out when did you do that, setting up the ambulatory exercise program there, which we had talked about before?

Nanette Wenger

It was really in the early 1960s.

Laura Ettinger

Okay.

Nanette Wenger

It was a federal grant. At that time, it was from HHS, the Department of Health and Human Services.

Laura Ettinger

Yes.

Nanette Wenger

And actually, it was the first federal grant at Grady Hospital, and it was deferred for a little bit of time until Grady integrated, because this coincided with the civil rights, and no federal funding was given to segregated institutions. This was a long-term grant. It was about five years, and then it was continued for a while. And there were so many things that enabled it happening. I had been exposed to the concept of moving cardiac patients around when I was a medical student, and Sam Levine developed the chair treatment. And I really was very impressed with it. And I didn't see much reason for the extensive immobilization of coronary patients. And I think, as we discussed, the basis for that immobilization was autopsy studies that showed that with patients who died from a coronary event, their hearts didn't heal until about six months. But those are the patients who died, and I challenged whether that applied to the patients who survived. And this coincided with the development of coronary care units, so that we now had hardwired monitors where we could look at heart rhythm and see that physical activity would not put patients at risk of abnormal rhythms. So we developed a 21-step program. And we work with physical therapy and occupational therapy, on a large number of specialties, with the exercise physiologists and



developed a physical activity program that first was simply walking around the bed, and then after a while, just walking. And we sent our patients home in 21 days, hence the 21-day stay. And I think, as I've told you before, we had no serious problems with our patients. We originally had tried to randomize patients so that one half of the patients would have early ambulation; the other half would not. But our coronary care units were interesting facilities. They were eight-bed units with four beds on one side and four beds on the other. And we thought that we could randomize them, one side yes and one side no. But what the nurses told us very rapidly is that the patients randomized to bed rest saw what was happening with the patients who were moving around. And against medical advice, they would just mimic what those patients were doing. So, just for physical constraints, we couldn't do it. But when I presented my data at the scientific meetings, and they were really relatively powerful data showing no risk and showing that patients could return home safely without risk, the questions were less about the science, and more about how much medical malpractice insurance I was carrying.

Laura Ettinger

I remember you saying that. So how long did it take for cardiac rehabilitation in this way to become the standard of care?

Nanette Wenger

[01:05:57]

The people who are advocates, and I was one of the founders of the Society of Cardiac Rehabilitation, now with a new and much more elaborate name, but this was a very attractive idea, and it took a while for early ambulation in the hospital to develop, simply because people were unsure of its safety. I think we demonstrated its safety. But people were unsure, and that took more time. But you have to realize what the rehabilitation model was in Europe, where cardiac rehabilitation antedated that in the US by decades.

Laura Ettinger

You had mentioned that.

Nanette Wenger

I mean, in Europe, this was residential rehabilitation, where patients were sent to, for example, a castle in the Black Forest for a number of months before they returned to their community, and were then in local rehabilitation programs called sports programs. But that was certainly not a feasible model in the U.S, and a number of us in the U.S. said we have to do this on an ambulatory basis. And ours was one of the earliest cardiac rehabilitation programs in the country. And because everyone was hesitant about it, we did something that I regret. We didn't enroll the patients in ambulatory rehabilitation for about six weeks. So they went home, they were given instructions to walk around the house, etc., but I think we lost six weeks. And we lost a number



of patients to care. Now we send patients from the hospital to rehab. And, again, this antedated monitoring. And we used a gym, we used mats, and we learned to use children's equipment, because using adult exercise equipment was beyond the capabilities of many of these older patients. So we used lightweight children's balls and bats and what have you. We did relay races, we had them play ball in a circle, we had them walk, we had them do exercises and exercises to music. And they would walk by the ECG machine, put their hands on, so we could record their heart rate response. There was no monitoring available. What happened, I think, was not a good service to cardiac rehabilitation, because as the monitoring became available, it became an industry. The approval was for 36 sessions. And the model became one patient, one nurse, one bicycle. And it was costly. And patients had to go to a center, which limited access. And there was really no self-determination. So, we really didn't know what happened after the patients completed their 36 sessions, but every one of the studies was positive. In terms of improving exercise tolerance, there were very good educational sessions that were really helpful about medication taking, about risk reduction, and so forth. So the educational sessions were really important, and they were reimbursed. But the long-term adherence to physical activity was less than optimal. And many of us talked about the possibility of hybrid sessions. The British were among the earliest to do rehabilitation at a distance, and again, as the technology improved, some of these were videos. Now we can do it by using any one of the hybrid techniques. Now we can transmit laboratory and physiologic responses, etc. And particularly during COVID, hybrid rehabilitation took off. And programs were developed that were not equipment-based, although some of them were. Some patients could afford exercise bicycles or treadmills. But now, I think there is a major interest, and there are a few, more than a few papers showing that non-supervised rehabilitation for selected patients is safe. In the guidelines, it's now recommended for patients who don't have access to rehabilitation centers. And there is evidence that patients who do home rehabilitation are more likely to stay with an exercise program after the formal 36 sessions are over. And that is influenced by a lot of data from the United Kingdom, because this is self-determination of exercise, and patients will continue with it. There are a lot more studies that are needed. If I had the ability to wave my magic wand, what I would do is I'd have one or two sessions supervised at the hospital, or at a medical care center, so that patients would be comfortable and feel safe with exercising. And people who had never exercised would be shown how to exercise and then have them go to home exercise. And right now, we are trying to set up a program of this at Grady, because the supervised exercise programs have declined substantially because they're not financially viable. The reimbursement under Medicare and Medicaid is so low that if there are not a substantial number of privately insured patients, the center is not viable. So we have to get this where it is viable, and the hybrid programs are where this may happen.



Laura Ettinger

[01:12:50]

Okay, very interesting. Is there anything else you'd like to say about the state of cardiac rehabilitation today, or about your involvement in cardiac rehabilitation?

Nanette Wenger

I think it's evolving right now, and its evolution is really guided by technology. And the better the technology, the greater the accessibility. Certainly, it has the potential to bring cardiac rehabilitation to patients who are at a distance from centers, which are usually in major medical centers. The patient interest is really great, and there are many, many hospitals now where patients who have an intervention or bypass surgery or acute coronary event, where this is part of the discharge planning. Some hospitals automatically refer to cardiac rehabilitation, but that really is more exclusively hospitals for privately insured patients, because the rehabilitation centers that take uninsured patients are few and far between. Those who take Medicare and Medicaid have a limited enrollment of those patients.

Laura Ettinger

Okay, thank you.



Chapter 8

Leadership, Guidelines, and National and Global Impact

Laura Ettinger

[01:14:09]

I'm going to turn now to something that you were talking about earlier today, and also somewhat in the last session as well, and that is your leadership. You said both last time and today that you have a different leadership style than most people do, that most people lead from the top down, and you tend to lead from the bottom up, and that you get people enrolled in your vision, and then once they're enrolled, they take off and go in different directions that interest them. I want to hear much more about that. Have you always had that leadership style? How did you develop it? I want to hear more.

Nanette Wenger

Well, I went to a girls' high school and a women's college so that I was very comfortable, because there was not the competitiveness of the girls versus the boys. And I went to schools that focused on developing women leaders, so that in high school, I was involved with a number of clubs and a number of groups, and I usually ended up in a leadership position. And in college, I was involved very much with student government and student activities, and ended up in a leadership position. And same with my sorority. I don't know whether it was my assurance that I could do it as well or better than the other people, but I always seemed to end up in leadership positions. When I came to Atlanta, I joined a number of organizations. And I quickly ended up as the woman president, or the first woman president, if it was a non-woman's organization. And I think I'm very comfortable with myself; I'm comfortable with my skills. Early on, I learned some of the basics, like Robert's Rules of Order and how you run a meeting, and because I assumed that most people who were involved in organizations and committees could read, as I led one of the things that I did was to say, how many meetings can we avoid if we send out materials ahead of time, and people respond? So that I think people liked the leadership style that gave them autonomy. And that led to my being the first woman president of the Georgia Heart Association and the first woman president of the Georgia chapter of the American College of Cardiology. And as I told my colleagues at the meeting last November, I was president of the Georgia chapter of the American College of Cardiology from 1983 to 1986; I served two terms. It took them 40 years to get another woman president. I said, so when we look at DEI, we have to look at it within our own organization and say, what is it that we have to do to encourage women to be in leadership positions?



Laura Ettinger

So actually, I want to ask you that, since you're mentioning it. What do you think we need to do to encourage women to be in leadership positions, whether at the Georgia chapter of the American College of Cardiology or elsewhere?

Nanette Wenger

I think first is mentorship, and secondly is sponsorship. And as I work with young women, both in training and young faculty members, and this is both men and women, mentoring and then sponsoring. I want to see if there is a position available. I think of the people that I know, both women and men, and I'm very active in nominating them. When there are awards available, I want to see very carefully that the women and men that I work with are nominated for those awards, and that I get someone else to co-nominate with me, or if I've sponsored A, and I think B is a good candidate, I'll call someone else to say, will you sponsor B? I sponsored A. So it's an active way of encouraging leadership. And I've encouraged, again, my young trainees and junior faculty to become involved in the professional organizations, and as I see the leaders, both of the American Heart Association and the American College of Cardiology, I can smile a very big smile, and say that very many of these are men and women that I have either mentored or sponsored.

Laura Ettinger

Wonderful. Can you just explain briefly the difference between mentorship and sponsorship?

Nanette Wenger

[01:19:42]

Well, sponsorship is a much more active process. It means essentially advocating for someone to be in a position, or to have an award, or what have you. That's a very active process. Mentoring is a two-way street. And typically, it's the mentee who will indicate an interest, or it is the ability to get a junior person in a position. For example, I'm asked to write a large number of papers or articles. If it's something that's immediate, and I have to do it within the next several months, it's faster to do it alone. But if it's something that has a little bit of lead time, where I have the opportunity to mentor, I will get a trainee or a junior faculty member, often to become first author on a manuscript, where I have the ability to teach them how to write, to review their writing, and then to give them a first-author paper. And it really is a very active mentorship in terms of writing. And more recently, I was asked to do something very extensive for a book that is coming out on women in cardiology, and it's something that I did not have the bandwidth to do as first author. So I went to one of my more senior colleagues, whom I knew was a good author, and where I knew a first-author chapter would be an important component of her promotion package, asked her to do it, and together we picked another junior faculty member, and the three of us did that chapter together. And it was a learning curve for everyone. It was fun because we



cooperated. It was very hard work because we were at three separate facilities. But we came out with a chapter in a book that addresses women in disease. We did the heart disease chapter. And, looking back on it as we read page proofs, I said to my author number one and author number two—because I'm the last author on the manuscript—I said, “This is a good chapter.”

Laura Ettinger

That's really wonderful. Sounds like lucky are the people in Dr. Wenger's orbit, is what I'm hearing. Is sponsoring, and maybe in particular mentoring, look different when you're mentoring women colleagues as compared to men colleagues? Does that end up looking different in any way?

Nanette Wenger

Not really. Not really because, remember, the mentee usually reaches out to you. And very often, I'll be running a conference, and someone will present a case at the conference, man or woman, very often a resident, not even a cardiology trainee, and say, “I'm interested in cardiology; what can I do?” And then it's a combination of mentorship and sponsorship. If it's been a fabulous conference, I'll say, “Why don't you consider submitting this for presentation at this meeting or at that meeting?” Or if it's not, “Are you writing this up? And who is your faculty advisor? Who is the, you know, the clinician on the case, and are you doing it?” So it's a combination of mentoring and sponsoring, and very often these people will come back again.

Laura Ettinger

I'm sure they do.

Nanette Wenger

For a revisit.

Laura Ettinger

I'm not surprised to hear that. You know, you've given some examples of your approach to leadership. I know that over the decades, you've served in so many leadership roles, for example, within the American Heart Association, the American College of Cardiology, National Institutes of Health task forces, World Health Organization committees. Is there any one of those that you want to pick, or others, and talk a little bit more about how your leadership from the bottom up worked?

Nanette Wenger

[01:24:27]

Well, I think by the time you become president of an organization, your leadership from the bottom up is gone, because your responsibility is to move that organization forward during the



tenure of your term. It's when you come up with something new, a new approach, a new concept, that you really have to do it. And I think the farther you are on the accomplishment scale, the easier it becomes to float a new idea and see if it's going to launch. And there often are more people who are ready to listen. And I think that this is something that has happened with the hybrid cardiac rehabilitation. I've earned my spurs in cardiac rehabilitation. And when I talk about approaches to hybrid, there are people who are listening and who are really growing that area. And the Million Hearts program has been very, very active in encouraging hybrid cardiac rehabilitation, and now, again, with the contemporary funding of so many of these programs, I think many of the interesting interventions have been paused, but I hope that pause won't be for long.

Laura Ettinger

Me too. I know another place you've played a leadership role is in guideline development. Can you talk a little bit about that for someone who isn't familiar with guideline development? How does that work, and what kind of role have you played?

Nanette Wenger

Well, the organization determines that there is a need for a clinical practice guideline.

Laura Ettinger

Uh huh.

Nanette Wenger

And there is typically a writing committee group that looks for leaders, leaders who are willing to put in the time and the effort required to make a good guideline, and they ask you to participate either as the chair or co-chair of a guideline, or as a writing committee member. And each organization has its own way of writing guidelines. I've been honored to have been asked by the U.S. groups to write guidelines for women, to write guidelines for acute coronary syndrome, to write other guidelines, and most recently, I was asked to be the North American author on the European Society of Cardiology acute coronary syndrome guideline. Now that guideline was during COVID, so much of it was on Zoom. But a few of the meetings were in person. But the meetings in Zoom were interesting, because the ESC is based in Paris, and 9 a.m. Paris time is the wee hours of the morning Atlanta time. So, the monthly meetings were a little bit of a challenge to my next day. But I worked with very exciting people, people who learned how to do things at a distance. And I made many valued colleagues working with the European guideline.



Laura Ettinger

And here you're talking, right, about not only have you had a national impact, but you've also had an incredible global impact. Looking back, where do you feel you've had the greatest impact on public policy or on policy or public health—nationally, globally, locally?

Nanette Wenger

Well, again, if there is an area in medicine that requires attention to public policy, then you become an advocate. And all of the professional societies have very large advocacy groups and public policy groups. And some of it involves as little as in Atlanta, my traveling a mile to the Gold Dome, which is the Georgia House of Representatives and Senate, and some of it involves going to Washington for an advocacy meeting. So I've had the opportunity to testify before congressional committees, to meet with staffers of our elected representatives, because that's where public policy happens. And some of it has been slow, but important. Some of it has been very satisfying. In Georgia, we realized that maternal mortality was really a very serious problem. And I made many trips to the Gold Dome to talk to my elected representatives, but most importantly, to talk to their very bright young men and women staff members who read the bills, who help write the bills, who talk to the elected representatives. Georgia Medicaid for women covers them during pregnancy and until the six weeks postpartum. And of course, it's at that visit that very many of the serious problems become identified. But their insurance then lapses. And our efforts, a large number of us going down to the Gold Dome multiple times, we now have 12 months of insurance for women after they deliver their baby. So we have the opportunity to do a huge amount in terms of education, in terms of intervention, in terms of care. And the whole area of maternal mortality has gotten a great deal of attention nationwide, and fascinating things are happening. Let me give you one example that I find fascinating. We looked at the distance of women who give birth from where they live to their birthing hospital. And in urban centers, it's five or 10 miles. In some of the rural centers, it can be 75 miles. Now, they're not going to show up for their postpartum visit to address any of the problems. And one of the research studies that's underway, and it's the kind of thing that I hope will get funded, because I think it offers a great deal of promise, is the question of the pediatric visit. If you have in the pediatric office where the women are going to take their babies, if you have an advanced practice nurse who provides follow-up care for the mother during the baby's well-baby visit, what will that do to improve maternal health? It's a study that's in progress. I think the promise of it is enormous. It's going to require resources. But there are programs like this that are being established that are imaginative, that are creative, and that are designed to improve outcomes for women.

Laura Ettinger

Wonderful. Thank you for explaining that.

Chapter 9

More Than “That Funny-Talking Lady Doctor”

Laura Ettinger

[01:32:40]

I want to turn to something somewhat different. In our first interview, we talked about what it was like for you to be a young, Northeastern, Jewish woman cardiologist when you first arrived at Grady. I would like to hear more about how being a woman physician has affected how others have perceived you since that time, since that early time, and also about how being a woman physician has affected how you've operated in the world. But maybe let's talk about how being a woman physician has affected how others have perceived you over the years, and how much has that changed, that kind of thing. Again, you were talking about what it was like in those very early years.

Nanette Wenger

Well, this really is inextricably intertwined with the civil rights movement. Because I had never lived in a segregated society, I was educated and trained in New York and Boston, and that was not part of my background. And I expect I inadvertently became involved in the civil rights movement, because as head of the clinic at Grady, we had the system where patients were called into their appointments on a PA system. The white patients were called Mr. or Mrs.; the Black patients were called by their first name. And that was unacceptable to me.

Laura Ettinger

You had talked about this, yes.

Nanette Wenger

And I changed that in my clinic, got reported to administration.

Laura Ettinger

Right.

Nanette Wenger

But it continued in my clinic. And through that I had the luxury of meeting some of the leaders in the civil rights movement who heard of what I was doing at Grady, and I think that because I cut my teeth on this very overarching problem, the fact that I was that funny-talking lady doctor, that was less important than this contribution, and I think I earned my spurs there. So that perhaps because I did challenge an established norm and succeed, I was accepted as a leader. No one challenged, really, the things that I did. I still remain that funny-talking lady doctor, but my northern speech slowed a little bit, softened a little bit. And I expect that it was my leadership in



this area that encouraged me to do other things in the clinic that were not civil rights-related, but that were patient-related, and establish programs in the clinic and there was no challenge to them, because they had never been done before. No one could tell me: "you can't do this, because—." But they were new, and I established a variety of patient education and training programs, etc. And those I expect were leadership roles, and the nurses in the clinic were so excited at what they were able to do with patients. And because they were the people who were there, I gave them responsibility. I delegated to nurses who were not baccalaureate-trained nurses, who were nursing school-trained nurses, responsibility for an anticoagulant clinic, responsibility for running rheumatic fever prophylaxis out of a green card box. They were the ones who called the patients who kept it. And they did it beautifully. And many of the nurses stayed with me for decades because they were doing things that expanded their horizon and that improved outcomes for patients, and they were really very excited. But I think this was leadership by example, by giving people a structure within which they could function, and they did beautifully. And this is the reason that if something came up in terms of policy and what have you, I was one of the people that was called in to participate. And that was a luxury. I think some of that got me elected to the University Faculty Council and to the University Senate, and I had the opportunity there to, I think, make important contributions, because I was a member and then subsequently chair of the Faculty Life Course Committee.

Laura Ettinger

I remember you saying that.

Nanette Wenger

[01:38:29]

And we initiated a discussion about maternity leave, which had never been talked about, and got that into the gray book. I think I told you before that it was my committee, that was the founding committee for the Emeritus College, the university, which is now a wonderful organization for people who have retired from practice, but still want a connection to academia. So we did a number of very adventurous things there. Again, because the people there were all elected to leadership positions, they were very responsive to new ideas. The Faculty Council was a very select group of elected leaders, and, as such, a number of exciting proposals over the years have come and still come from Faculty Council.

Laura Ettinger

Sounds very satisfying, and sounds like you really made a difference there.

Nanette Wenger

Yes, yes.



Laura Ettinger

You were talking about, both today and in the first interview session about cutting your teeth during the civil rights movement. What about after that time, you know, 70s, 80s, 90s, you've been your whole career at Grady and Emory. To what extent do you think being a woman physician affected how others perceived you?

Nanette Wenger

I think as more and more women came into medicine, the designation of lady doctor no longer identified me. And I think I had established my leadership role so well that they just sort of came with the title. And actually, when there are some problems involved, I'm still invited to sit on some committees, or to say, are you interested in being involved in this? And I can be selective.

Laura Ettinger

That's great.



Chapter 10

Personal Life: Marriage, Family, and Community

Laura Ettinger

[01:41:02]

I want to turn to more about your personal life. We talked some about this in the first session, marriage, family, community. You talked about meeting and marrying your husband, Dr. Julius Wenger, gastroenterologist, and moving down together to Atlanta; you talked a little bit about raising three daughters and balancing some of that. I'd be interested to hear more about the values that were most important to you and your husband in raising your daughters, who, I know you said were born in the late 50s through the early 60s. You said there were five years between them. What were the values that were most important to the two of you in raising your daughters?

Nanette Wenger

Well, again, you have to remember that we raised our daughters in a segregated society, which was not according to the values that we had had as young adults, both in our former lives and in our Atlanta life. So we were very, very careful to emphasize to them that people were equal and that they had equal respect for our employees, or people we worked with, who were African American and who were white. And we always— we're respectful to our employees worldwide. And the children were never allowed to take advantage of them. So, they were part of the family. And I think when my children started school, there was the whole issue of: would the public schools close in Atlanta? And that was the response to integration. And we were very active, as were so many of our friends, in the hope to help our public education to keep the public schools open. And my children started in public school. And unfortunately, what the Atlanta solution to integration was, was busing. So Atlanta is such a large city and such a divided city that children were bused into the white schools on the north side of town. And we were with that, although it created tremendous discipline. You take any child of any age and put them on a bus for 45 minutes in the morning, and they're going to have behavior problems when they arrive in school. So we accepted that for a little while as a necessity, but the day that they said they were going to take our children and bus them to the south side of town, I said, I just cannot allow my children to become part of that experiment. And fortunately, they tested well, and they all tested into a private school. And that was one of the decisions that my husband and I made. And we still continue to support public education, and we saw the schools integrate gradually and semi-successfully. If the same amount of money had been spent on education as had been spent on busing, we would probably have a fabulous public education system in Atlanta, which is still lacking.



Laura Ettinger

Yeah. Careers. You and your husband both had/ have big careers, right? I know you said your husband was the one who got the job first in Atlanta, and that was the reason the two of you went to Atlanta initially. How did the two of you make decisions about careers, when you had three daughters and I know also a very active community life, which you talked a little bit about last time? I want to get into that more. How did you make decisions about your careers? You clearly made a decision to stay in Atlanta. But how did you do that?

Nanette Wenger

[01:46:04]

Well, you know, we always schedule at work. And we're expert at scheduling at work. And what we became was expert at scheduling at home. So that when we did our on-call schedule for the next month, the two of us were never on call the same night, so that there was always someone home with the children if we were called in. We scheduled our vacations as precisely as we scheduled our conferences, so that we could either get home to New York to visit with family, or we could travel. And both my husband and I were involved in professional organizations, which meant travel, and we saw that we were not out of town at the same time, so there's always someone who was at home. But because we did a great deal of travel, we often had the opportunity either to travel together,

Laura Ettinger

Uh huh.

Nanette Wenger

or to take one of the children. If we couldn't travel together to a special place, we would try to take one of the children in rotation to A, B, and C, so that by the time they were in secondary school, they had almost circled the globe. And I think they were exposed to travel very early, they traveled very well, they were comfortable meeting strangers. In cities where my husband or I were lecturing, there was always someone who would take them around and show them the city, introduce them to their children. And they became great travelers, traveled a great deal on their own subsequently, and even subsequently traveled with their children.

Laura Ettinger

That's really cool. I have read that two of your daughters are physicians, and one is an historian. Can you say a little bit about each of them?

Nanette Wenger

Yeah, my oldest daughter is an ophthalmologist, and was at University of Alabama, Birmingham. My second daughter does obstetrics in New York City. And my youngest daughter,



again, the one who strayed from the medicine pathway of the rest of her family, was an historian who spent much of her career as chair of history at the University of Pennsylvania. More recently, she has been dean of the Graduate School at the University of Pennsylvania.

Laura Ettinger

And what's your sense of the challenges they've faced as women professionals, and in two cases, as women physicians, as compared to the challenges that you faced?

Nanette Wenger

Very different, because it was a very different era, and the challenges of child rearing were much more difficult for them than for me, simply because it was a different time and different availability of skilled child care help. But you have to remember that one of my father's sisters was a surgeon in Europe, so when my daughters are asked: "what's it like to be a woman physician?" they'll say that they were third generation.

Laura Ettinger

Amazing, yes. I know, and again, we talked about this a little bit last time, that you've been deeply involved in the Jewish community in Atlanta. Can you say more about the kinds of things you've been involved with? You've mentioned Hadassah and your synagogue; you said that when you first moved to Atlanta, you quickly joined a synagogue. Can you talk a little bit more about the things you've been involved in, and what that involvement means to you, and has meant to you?

Nanette Wenger

[01:50:17]

Well, you know, going to a strange city, my mother's orientation to me was that you join a synagogue and you join Hadassah, which I did quite promptly. I became involved in my synagogue, but my husband was much more involved. He was involved in the Education Committee and chaired the Education Committee for a number of years. My involvement early on was with Hadassah, and I relatively rapidly became president of one of the groups, and a few years later, founded and became president of a second group, the Women's Business and Professional Group, which was an evening group, the first availability of an evening group for women. And I instituted unusual things in that women's group. First, I said, in order to join it, you have to be a life member. So that if all the members were life members, we never had any problem with membership. We never had any problem with re-enrollment. So that was a chore that the chapter never had, and we could focus on information and education. And because we're all business and professional women, I did a great deal by the brand new advent of email. So instead of having committee meetings and board meetings, etc., we have meetings that were conducted by email. And the business part of it became less of a chore. And we did do some



fundraising, but we didn't have to do membership. And our main focus was education, and we selected the educational programs that we wanted, and our meetings were primarily educational. So it was a very different departure from some of the other groups that I had chaired. And then I found out that I was being recruited to other groups. There was a fascinating group in Atlanta that was the Jewish Children's Service that had run the Atlanta Orphan Home. And at the time, by the time I became president of the group, we only had one remaining orphan who was still in the age where we were supporting and supervising. So that became less, and we essentially pivoted to doing something different and became the Jewish Educational Loan Fund. And what we did was to try to raise money to provide no-interest loans to Jewish students once their Pell grants and all of their other federal funding were no longer available. It was a southeastern group, but Atlanta was the focus for it. And I remember during the years that I was president, when we gave something like several hundred thousand dollars' worth of loans, and we thought that was unbelievable. I recently attended a JELF meeting, where the group has grown to where we gave over \$2 million in loans this year. They are non-interest loans. And we still retain our 98% to 90% payback of those loans. So the money goes back in to reinforce, and we now have a number of previous JELF recipients who are leaders in the organization. So, that's an amazing success story that I'm really proud of having been a part of. And then we had a few groups that transitioned in and out, but that I had the privilege to be president of, and this was a program for Bar and Bat Mitzvah students who were mentally challenged. And there was no one within any of the congregations who had enough of these students, and we set up an educational program for them that involved all of the congregations. Subsequently, as the congregations developed their own programs, that program transitioned out. But that was a bit of negotiating among, I think there were only six or seven congregations at the time. But to get the content that was acceptable to all of them was a bit of a challenge. And I became involved with the Jewish Museum, with the Breman Museum, which is one of the highlights of Atlanta Jewish cultures. I became involved with some of the lecture series at my synagogue. Let me see, what else?

Laura Ettinger

That's a lot!

Nanette Wenger

[01:55:36]

But I think that the nice thing is that when something comes up in the community, I always get a call to participate. I've done a lot of educational programs, many on women's heart health, for the Hadassah chapters, and for my synagogue, and for the community. And Atlanta has a very active Jewish life. And I think I have gotten so much back from being a participant in that that it pales in comparison to what I've given. Just being a part of the community has really enriched my life.



Laura Ettinger

Wonderful. Are there other aspects of your personal life that we haven't touched on that we should?

Nanette Wenger

Well, both my husband and I are music lovers.

Laura Ettinger

I remember that.

Nanette Wenger

And we were members and season subscribers of the Atlanta Symphony beginning in the late 1950s. So we have been significant donors to Symphony for over 40 years, and a few years ago, as my involvement with a number of other things diminished, I became involved with the Community Advisory Committee of Symphony. And it has been a just delightful addition to my life because my emphasis there was on patron experience at Symphony, and my emphasis was to try to get young people involved in symphonies. So we developed two programs, one for college students, where for a small fee, they become members of this group and can attend any symphony concert where there are unsold seats.

Laura Ettinger

Smart.

Nanette Wenger

And the other one is a program similar to that, but for 25 to 40-year-olds, where, again, there's a small fee, and they have special concerts to which they get invitations as a cocktail party before or after, they get to meet like-minded people, etc. It's been going on for long enough that we're beginning to track these programs, and they look as if they're contributing to symphony subscriptions. So this is just trying to get people involved. And of course, as a member of the advisory committee, I have the opportunity to meet many of the performers, to meet our new conductor. Atlanta now is the only major symphony in the U.S. with a woman conductor, and Nathalie Stutzmann is phenomenal. And we get to interact with a community of musicians that is on a very different level than simply attending concerts. And of course, I'm addicted to the symphony and attend probably 20-plus concerts a year.

Laura Ettinger

That's amazing, both the work that you're doing and the opportunities you're getting. That's fantastic.



Chapter 11

Current Work, Legacy, Reflections, and Advice

Laura Ettinger

[01:59:20]

I want to turn now, as we're coming closer to the close of your interview, to your current work. I realize, actually, you were just talking about some current work in the area of the symphony. But you know, you're sitting in your office talking to me; I'm aware that you are still working. Can you talk about something about your current work, where you're focusing your energies now?

Nanette Wenger

Well, I still value patient care. And there are some patients in clinic that I've taken care of for three and four decades. So I still need several clinics a week. I meet only fellow clinics, which means that the fellows are the primary caregivers, and I just supervise them in their care of patients. So I have the opportunity to multiply what I do in that clinic by three or four times, because I see the patients with each of the fellows. So it's an opportunity to do patient care, but to teach at the same time. And that is really a luxury because that is really apprenticeship. And that's the way people learn cardiology. And they learn, I think, not only how to care for patients, but sort of the principles of caring for patients. And I meet one clinic, which is a preoperative evaluation clinic with the advanced practice providers where they see patients, and I review those with them. So it's a chance—we now have a group of fantastic advanced practice providers, and we provide supervisory care to them. So, this is another group with which we interact, and we've just been very fortunate to attract very, very exciting and competent APPs.

Laura Ettinger

Wonderful.

Nanette Wenger

Then a lot of what I do is committee work and writing. So that the writing, again, as we discussed, some of it I'll do primarily. Some of it I'll do with people from away, as you know, as practice documents, as commentary documents, and much of it that I'm asked to do, I will select a junior author to lead and follow with them. So I typically have four or five manuscripts that I'm working on simultaneously at various stages of development, which is fun.

Laura Ettinger

Amazing. Is that how many you're working on right now?



Nanette Wenger

Right now is a little bit more because we had a pause in November for the American Heart Association scientific sessions, and then another pause for all the holiday celebrations, so now we're getting back to work.

Laura Ettinger

So what's it like being a physician-scientist now, as compared to your earlier years? I mean, you sound as busy as ever.

Nanette Wenger

Well, it's as exciting as ever, simply because there are so many new horizons. The things that we talked about earlier: some of the new areas of artificial intelligence in medical care, all of the new imaging and diagnostic tests. So I feel as if I am both teaching and learning every day. We run a sizable number of conferences. We have three conferences a week right here in our cardiology suite for our trainees. I run one monthly conference for the internal medicine residents where they present to me and we discuss cases. And I'll do a number of Zoom calls and lectures for conferences.

Laura Ettinger

Wonderful. So, you have received so many prestigious international awards, national awards, local awards, and honors. And there are a number of prestigious awards in your name. It seems like we could spend four hours just talking about all of those. Are there some of those awards that you've received that are particularly meaningful to you? Again, I know you've received so many.

Nanette Wenger

[02:04:13]

Probably one of them that I'd like to— let me mention two of them because they're organizational awards. And the American Heart Association did me the honor a few years ago of naming the Research Goes Red Award for me. And what this is, it's an award that is given annually at the scientific session for the best scientific manuscript related to heart disease in women, published in an American Heart Association journal. And this is a selection that's done by a committee and by the journal editors. But what this does is it emphasizes the importance of research in women. And then at the scientific sessions of AHA, I had the responsibility to prepare a 15-20 minute talk that gives the view from 10,000 feet of the problem, which that awardee is going to discuss, so there's a setting the stage, and then the awardee gives his or her presentation. But I think that has done so much to advance the emphasis on research on heart disease in women that I am so grateful to the Heart Association for naming the award for me. And the other is an organization that I helped found a number of years ago, and that is



WomenHeart. And WomenHeart has named its annual awards the Wenger Awards. I have nothing to do with the selection of the awardees, and there are awards that are given for excellence in medicine, excellence in medical education, in public education, in advocacy. Very many elected officials have been honored by the group. And it's been my privilege to present some of the awards. But the fact that service to women with heart disease is emphasized by these awards makes my name on them very precious to me.

Laura Ettinger

That's fantastic. A related question is: what do you hope your legacy is in cardiology, in medicine, in the lives you've touched?

Nanette Wenger

I hope my legacy will be that I have contributed to the healthcare of women and that I have encouraged other people to do so, that I have encouraged women to become cardiologists, to become leaders in cardiology, to become researchers in cardiology. And I hope that I have taught women researchers and scientists that they are citizens of a community and that because they are privileged by their education and training, that they have the responsibility to give back to their community in any way that is meaningful to them and meaningful to their community.

Laura Ettinger

Thank you. Slightly different question. When you speak with young women entering medicine today, and I know you do that, what advice do you offer them, or what advice would you like to offer them now, again, when speaking to young women entering medicine?

Nanette Wenger

Well, again, that they have come so far because they have been selected in a rigorous educational selection process. So they have to value themselves because if they don't value themselves, no one will value them. And then, what they have to do is to search the horizon and to see what gives them satisfaction and where they have the opportunity to contribute. And if that combination is achieved, they will do well.

Laura Ettinger

Sounds like great advice for any of us, not only those of us in medicine. Is there anything that we have not discussed that you feel is important to include in this record of your life in this way?

Nanette Wenger

[02:09:02]

Well, again, I think this award that got me the interview with you. And I think that the Women in Medicine Legacy Foundation that gives the award works very hard to search the medical



community, and because of my being a recipient of the award, I've been on the search committee. And I just have enormous respect for the time that everyone devotes to winnowing down a huge list, to a sizable list, to a reasonable list, and then to select the award winner. And I expect that any of us who've been award winners are so grateful for having received the award, but for the time and effort that the committee has put in to searching for an appropriate candidate for the award.

Laura Ettinger

Well, Dr. Wenger, I really thank you so much. It has been an extraordinary honor to hear your story. Your contributions to medicine and to the lives of so many people are just incredible, and I'm grateful to you for your time and your generosity in sharing your memories with me and with us. Really, thank you very much.

Nanette Wenger

And I'm grateful to you for your interviewing skills. This has been a pleasure. Thank you, and have a great day.

Laura Ettinger

You too. Thank you very much. Bye-bye.