Geoff: Hello and welcome to "Taking the Lead," a podcast from the Radiology Leadership Institute that profiles radiologists as leaders, seeking insight and inspiration from a variety of perspectives and experiences. I'm Geoff Rubin.

Today I'm speaking with Stephen Swensen, Professor Emeritus and former chair of radiology at the Mayo Clinic College of Medicine, past Director for quality and safety for all 22 Mayo Clinic hospitals, founding Medical Director for leadership and organizational development also at the Mayo Clinic, and Senior Fellow at the Institute for Healthcare Improvement. An innovator and highly accomplished leader, Stephen is an expert in the development of effective healthcare leaders and organizations focused on providing high value care for their patients, and a culture of support for their physicians and staff, building esprit de corps as an antidote to physician burnout, and leading to greater professional satisfaction and patient outcomes.

Before we dive into the podcast, I have a quick favor to ask you. After you've listened, please take a minute to subscribe to the series, share it with your colleagues, and rate the episode with five stars. It really makes a difference. Now let's get started.

Stephen: Thank you, Geoff. You're too kind. I'm looking forward to our conversation today. Thank you.

Geoff: It's fantastic to have you. Let's begin with your earliest days. Where were you born and where did you grow up?
Stephen: I grew up in Wisconsin, a small college town. We had a little house in the country. We drove our bikes three miles to school and into town. We had eight people in the house, and we had three girls in one bedroom and three boys in the other bedroom. And believe it or not, we had one bathroom for eight people growing up. And so I learned a lot about how to get along with people and how to compromise and how to have empathy. And today, our family still gets together on a regular basis, the whole crew. And because we are a university town, all six children stayed at home for college. So we had an amazing social connection that our parents made work.

Geoff: That is superb. I imagine you also learned to take quick showers.

Stephen: Yeah, we had a schedule for efficiency and quick showers and...exactly.

Geoff: That's amazing. Wow. Now, what did your parents do for a living?

Stephen: Well, my father was a physical chemist in the University of Wisconsin System and then became Dean of the University of Wisconsin-River Falls where we all grew up. And my mother, after raising six kids, always wanted to go to the seminary. And so she became a ordained Lutheran preacher after she had an empty nest. And she had her own congregation for a dozen years. And they both lived to their late 80s. Mother still living and dad passed last year. So both of them, their job, one, was the family, and then they had careers that were professionally satisfying.

And they were very involved in the community. River Falls was like 5,000 people at the time. And so we were raised by the community, including the Isaacson's of the grocery store and all the connections of the university. They ran artist series and they had students from all over the world. So we had a nice taste of diversity. We had every color of person and orientation of person in our house for dinner and gatherings. And we had Muslims, and Jewish folks, and Christians, and atheists, and Buddhists. And so it was a wonderful community
to get a little taste of the world, even though we were in a small town in Wisconsin.

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**Geoff:** Oh, that just sounds like an amazingly wholesome environment, really diverse experiences, considering it was such a small town. And your parents, such great exemplars as leaders.

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**Stephen:** They were. And so when I look at resilience and read the research, and it's kind of this phase of life. I have had like seven different careers. And this part of my career, when you read about the science of personal resilience, the single most important thing is something we don't have control over. And no matter how much we exercise, and what kind of diet we have, and how much sleep we get, and how much sunlight we get, and how much meditation we do, the single most important thing that determines resilience in adulthood is our childhood.

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And mothers and fathers or parents or significant others, or however we were raised, have more of an impact on that than anything we can do since. There certainly is a lot that we can do for our own well-being and those around us. That's something that we were given or weren't given in our childhood days.

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**Geoff:** Wow, that is an amazing data point. If you were to sort of close your eyes and transport yourself back to your days growing up sitting around the dinner table with your five brothers and sisters and your mom and dad, can you give us a flavor for what the dinner table conversations might have been like?

[00:06:02]
**Stephen:** They were open and entertaining. And our parents, without knowing the science of commensality... Commensality is a fancy word for sharing a meal with someone. And at Mayo, we've done three randomized controlled trials with physicians on commensality, sharing a meal with each other. And the randomized control trials our team at Mayo found, one of them was with women who were also physicians and also mothers where we measured cortisol levels. But in all three of the randomized control trials, the doctors that shared a meal with colleagues had dramatically and statistically significantly more resilience, less social isolation, less emotional exhaustion, more positive feelings about the organization, more resilience.
And so my parents, without knowing the science behind commensality, this fancy word for sharing a meal with each other, made time every day for all eight of us to sit down and share a meal. They were always fully cooked by mother, and with help from the crew of six, but she led that until she went to the seminary. And we didn't have to worry about iPhones and iPads and any kind of electronic devices back then so we didn't have distractions. We'd always have dessert. And we would always visit as a family. And we talked about politics. We talked about religion. We talked about the weather. And it was a formative time for us that I think was a wonderful example for all six children as we raised our families.

Geoff: And seems that in this day and age, it's a bit rare to take the time to see to it that everybody in the growing household is able to sit down and share a meal together. And so it's a marvelous articulation not only of your personal experience but of what the data show to support that it is best practice.

Stephen: Yeah. And we lived in the country next to farmers and three miles from school, you know. Like I told you, we rode our bikes to school. But after dinner and the evenings, weekends were unstructured. They weren't filled with all these scheduled soccer camps and traveling football. They were spontaneous and playful with the neighborhood. And we created ways to entertain ourselves and to learn, and to skin our knees, and to get in fights, and to make up. So it was a wonderful childhood.

Geoff: Can you recall what was the first job that you had outside of the home?

Stephen: Mom and dad put us to work, you know, to run a house like that. We did have home jobs. The first job I had was in high school and this is Midwest in the summers. There's a lot of farming for four months of the year. And a lot of the seed corn came out of the Midwest, including Wisconsin. So my first job was detasseling corn in order to separate the different species or different varieties to get the right hybrids. And you would walk down these hundreds of yards of corn that was five, six feet tall, and you yank out the tassels so the hybrid seed corn could be made the right way.
And it was a hard job and was hot and sweaty, and you got cuts on your arms from the detasseling. But you built a camaraderie and you understood that for virtually anything in life, hard work is necessary one way or another. You don't have to have sweat in your forehead and scratches on your arms, but it shouldn't come easily and there should be some discipline that then pays off. And it was a good lesson for life.

Geoff: Yeah, sounds like it. That's great. What do you recall being your first experience as a leader?

Stephen: Oh, that's interesting. You know, within the family we took spontaneous jazz-like rolling waves of leadership. In high school, I was involved in some, in junior high school, some leadership positions, and editor of the student newspaper and Student Council, and some sports roles that gave you a taste of what it was like to work with other people, as a formal leader or an informal leader to get a task done. And I think that's where I came to understand that leadership is a social process. A social process to engage colleagues or friends or teammates to reach a goal. And the social process I learned, sharing a bedroom with two other guys and a house with seven other people, and that's a lesson for leadership. The core of leadership is this social process of engaging colleagues. It's not a beautiful vision and plan and execution, and all those are important, but if you don't have the social connectedness and the trust, you won't be able to succeed in what you need to do.

Geoff: Absolutely. Very well-articulated and what a great connection to your upbringing and your effectiveness as a leader and what you've been able to convey to others. Where are you amongst your brothers and sisters? Older, youngest, in the middle?

Stephen: I'm number two of six. And there's a lot of really interesting research on the birth order. So I take pride in being number two. And my brother is smarter and makes a bunch more money. He's ran Yale's endowment of $30 billion for 33 or 34 years now and has outperformed everyone at the Cambridge
index, and is a really cool role model of mine and a wonderful friend of mine. And he was number one. I was number two. And the social ramifications of birth order are really interesting.

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So in general, if you look at these huge study of tens of thousands of people and their birth order, turns out the second-borns tend to be a little more risk-taking. And maybe it stems from doing things that will get them more attention from mom and dad because the firstborn is so accomplished and maybe got a little more attention as being the first baby. And then in pro-athletes, if you look at baseball players, in baseball players, a study of brothers in professional baseball in America, second born brothers are way over-represented and much more successful. They're like several times...I think it's like, I don't know, four to five times more likely to steal second base. They're much more likely to take a ball, an arm, or a leg from the pitcher to get a free base and balls than the firstborns.

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And so I think that birth order dynamic helped me in being more creative, and maybe a little more gritty and aggressive in a positive way than if I was the last born or the firstborn. And I think that's part of the family story of the Swensens is how we supported each other. Even though my brother and I were rivals, he's one of my best friends and one of my role models and heroes.

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**Geoff:** So interesting. I suspect that as the leader of Yale's endowment and determining an investment strategy for these last 30 plus years, he's had to take on risks. And so to the extent that you sort of have bumped up the risk-taking up and above that, it sounds like you're a pretty big risk taker yourself.

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**Stephen:** Well, I think in a positive way for good causes. Exactly.

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**Geoff:** Marvelous. You mentioned that you went to college at the University of Wisconsin-River Falls. Hometown. You must have known the college really well, even before you started, given that your dad was professor and then dean. I do notice that on your CV, you list Richard D. Swensen, Ph.D. as your mentor. Is that your father?

[00:14:20]
**Stephen:** Yeah, that's my father.
Geoff: All right.

Stephen: And so I had a number of different mentors and role models. And my parents were role models for, you know, the nine decades they were on the planet. But in the formative years, they were particularly helpful. And during the college years, my dad was particularly helpful. And he thought so much of the people at the university. The most precious thing in his life was his wife and six kids, and he wanted the best for them. And so that's why we stayed at home. I think if anybody of us wanted to travel, we would have, but we had a good setting and could afford to go to college there.

Geoff: Yeah, I mean, what a terrific statement that the relationship with your father was such that when you became a student at the university with your dad serving as dean, that you saw him as your principal mentor through all of that. That's fantastic. What led you to choose medicine as your career path?

Stephen: Well, it's a family's story too, because my mother grew up in Pepin, Wisconsin, a small town of like 200, 300 people, with one brother. And they grew up in a house on a farm that had no central heat. They had no indoor plumbing, no running water, and the whole house was heated by their wood stove that they cooked on. In the winter, the water they boiled on top of the stove to keep the house warm, was frozen in the morning. Anyway, her brother was five years younger than she was and grew up in that environment and he was my Uncle Glen, Glen Hartman. And he was one of my role models growing up.

He was a Mayo Clinic physician, Mayo Clinic radiologist, actually. And he was a leader in the American College of Radiology. And he was such a wonderful person and that was who I wanted to be, at least for a career, and like him when I grew up. I wasn't thinking so much about radiology then, but I wanted to be a doctor. I decided to do that very young. In eighth grade, I actually wrote a handwritten letter to the University of Wisconsin Medical School to get an application so that I could look at the application and make sure that I, over the next years before I finish college and was ready to apply for medical school,
that I had everything set up. So at eighth grade, I basically decided I wanted to be like my Uncle Glen and decided to go into medicine then.

[00:16:45] Geoff: Fantastic. What a take-charge approach by writing for the application. So you ended up going on to the University of Wisconsin at Madison for your medical training?


[00:16:56] Geoff: You mentioned that Glen Hartman was sort of a role model that you really looked up to but you weren't so sure initially that radiology was the direction to pursue, but ultimately that is the direction you pursued. Tell us about that decision.

[00:17:11] Stephen: Well, we got to Madison...I met my sweetheart from St. Paul in freshman calculus at the university and we were friends for several years. And then we actually got married the fourth year of college just before... In fact, I got accepted to University of Wisconsin Madison Medical School on the Friday night of our rehearsal dinner on December 29th, in 1977. So Uncle Glen married an elementary education teacher fourth year of college. I married an elementary education teacher fourth year of college. And Lynn and I then went down to Madison. She worked in some small towns near Madison for a salary of $13,000 a year and we lived in married student housing next to folks that raised chickens in their marriage student housing apartments at the university.

[00:18:01] And so the role modeling went beyond that example and Lynn and I still are married 43 years later. And we got out of medical school debt-free. It was really a wonderful experience. And I actually applied for and got accepted into the Independent Study Program. The only class I took in a formal traditional didactic setting was gross anatomy where I shared a cadaver with three other students. But every other class, I just read a book or papers and then took a test when I was ready. And so that unconventional approach allowed me to look at different options and get involved with research and still finish up a half year early in medical school.
As time went on, Uncle Glen, you know, subtle way just showed me how much fun and interesting the challenge of mainly diagnostic radiology at the time and including some interventional radiology that was just evolving. And CT and MR and ultrasound were just evolving at the time. That by the time I was out of medical school, even though I bounced around anesthesiology ideas, and emergency medicine, and surgery, ended up making that decision over those period of years.

[00:19:15] Geoff: Excellent. The independent study and essentially bypassing all of the lecture-based courses, only taking human anatomy with your fellow students is quite a uncommon pathway. What gave you the sense that that was the best direction for you to just kind of step aside from the curriculum that had been established and to forge your own path?

[00:19:46] Stephen: I thought it would be more interesting. And if you look at the way people learn best and learn for most of their lives, it's not in traditional academic setting of a lecture where you're taking notes. It's actually by experience. It's actually by reading just in time and studying. So it was much more efficient and effective for me to just get in there and do one class at a time, take the test and move on to the next. And then weave them together in a less stressful way than the traditional medical school is organized.

[00:20:19] It also allowed me to take figure skating and learn a few jumps. It allowed me to take fencing. It allowed me to...you know, so I could take a few other courses to kind of balance in the arts and humanities. In retrospect, that was a way to build resilience and avoid what happens to about half of medical students, half or more, and that is some form of professional burnout.

[00:20:44] Geoff: Yeah, I would imagine that the other medical students might have been a little bit jealous of the opportunities that you had.

[00:20:52] Stephen: Some of them were, but most of them were used to going into classes and used to taking tests when the professors were ready to give the tests. And some of them might have needed the structure, I don't know. It was a decent relationship but I've met several people who were actually classmates that I've never met during the three and a half years of medical school because of that.
But we had a camaraderie...there were about, I don't know, 15 of us that were in this Independent Study Program each year and that was our social connectedness. Sometimes we studied together, but we gathered and shared advice and perspectives. And I think it's a better way to learn. I wish more medical schools offer that now and it's the way we do most of our learning for the rest of our lives. So it's a good habit to get to understood.

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Geoff: Now, you chose the Mayo Clinic for your radiology residency and with the exception of a year at Brigham and Women's Hospital in Boston for a chess fellowship, you have been at the Mayo Clinic for the past 34 years. Tell us about what led you to the Mayo Clinic and what has kept you connected throughout your rich career.

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Stephen: What led me was my role model, Uncle Glen Hartman. And then that opened the window to understanding a little bit about Mayo Clinic. There are many, many wonderful medical centers and arrangements so I don't wanna be arrogant. But I'm very proud of Mayo Clinic and its model. It is absolutely imperfect but what I like about it is the idea of starting with the patient and working backwards. So the primary core value of Mayo Clinic is the needs of the patient come first. And then 150, I think, 157, 158 years ago, that's how old the Mayo Clinic is when the Mayo family started it in this small railroad town of Rochester, Minnesota, in the 1880s.

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It's the first and largest integrated group practice. It's led by practicing physicians who partner with full-time administrators in a dyad relationship of leadership that is led by practicing physicians. Every physician, including all the leaders, are in a pure salary system. So there's nothing that gets in the way, at least financially, with collaboration, and collegiality, and consensus. And a pure salary system doesn't present any kind of conflict of interest with the patient because decisions aren't blurred by revenue or profit because whether you do 100 surgeries or 300 surgeries or do 110 angioplasties or 210, you get the same salary. And you get the same salary whether you're a full professor, instructor. You get the same salary whether you teach.

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And so it builds this culture that's focused on patients and money doesn't get in the way of that. And so, as imperfect as it is, the idea is close to ideal and it works well and it was hard to leave. Because I thought about it a number of
times, and every time I get a little itch to explore someplace other than Rochester, Minnesota in the middle of the cornfields of Minnesota, another opportunity popped up. And so that's why I went there and that's why I stayed. And I think it's a good system for patients and a good system for the country.

[00:24:22] Geoff: Yeah, thank you for articulating the Mayo Clinic model. This is our 25th episode of "Taking the Lead" and you're the first Mayo Clinic faculty member, a person who spent a substantial period of time there. And I think it's really important that our community has a chance to hear about what's special about the Mayo Clinic. It truly is a fantastic model and very innovative.

[00:24:45] You went on after completing your fellowship, as I mentioned, to join the faculty as a junior faculty member, in chest imaging. And in those early years, you were very productive as an investigator focusing on thoracic imaging and CT of lung nodules in particular. What led you to thoracic imaging and to that particular field of investigation?

[00:25:11] Stephen: I loved radiology and there were many sub-specialties that I was interested in. Back in the mid '80s when I was looking at fellowships and opportunities at Mayo, the opportunity wasn't chest imaging. We were just opening integrated group practices in Jacksonville and Arizona at the time, and there was anticipated chest opening a year down the road after I would have finished the fellowship. And so that's largely what drove my decision to chest. I always liked chest. I liked neuro. I liked a lot of different things. Explored MRI at Duke, but then decided to go instead of with modality, I decided to go with organ system. And so it drove into that.

[00:25:56] The inquiry...one of my passions of life is learning, whether it's trivia about birth order, or what it's like to live in the mountains at 7,000 feet, for a golf ball flight or training for marathons, or just in a course and in the profession of medicine. And so what drove most of the research were questions that came up about patient care that we didn't know the best way to go forward. And so we answered those questions as best we could with reviewing past cases or prospective look at lung nodule enhancement. High-resolution CT was just at its infancy then so I got involved with a fair amount of work there.

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And that ended leading to work with lung cancer screening. I had two NIH R01s, one for diffused lung disease and one in the lung cancer screening with CT that was the phase 2 trial that was a precursor to the NLST study. So it was basically driven by a spirit of inquiry to make our patient care better.

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**Geoff:** And they led to big time contributions for our field so, you know, thank you for those years. I wanna return back just a second to the years of your education. I wanted to ask you about the role of mentors. I think it's really nice how in your bios, in your CV, you call out your mentors at every stage. And clearly, mentorship is something that you have identified as fundamental to your educational process at each stage. Maybe you could talk a little bit for us about how you view mentorship and to what extent you continue to reach out to mentors.

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**Stephen:** It takes a community to make a professional. And the community can be everybody from the family to childhood, merchants in the city to professional role models and mentors when you're in your career at different stages. And it's really important and it's important for mentorship. It's important for coaching. And so I still connect with them as friends and colleagues more now than seeking advice. The last of my kind of seven different careers at Mayo Clinic was heading up leadership and organization development. We have close to, what, 4,600 physicians at Mayo and so this role was to be in charge of the development and the professional onboarding and development of all of the physician staff. And in particular, 242 physician leaders.

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And embedded in that was a mentorship program for every physician and embedded in that was a executive coaching relationship for every physician leader. And mentorship is more about advice and from a sage with experience about this is what you should be doing for your career and this is what I would recommend that you do for this research. Coaching is a lovely, thoughtful complement to mentorship where you're helping someone discover for themselves what the right path is for them. And so I think Socrates said something like, "Nothing is better learned than that which is discovered."

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And so this coaching, the Socratic coaching is a wonderful element of mentorship or complement to mentorship. And so we incorporate both of those into our leadership development programs for physician leaders, coaching and
mentorship. And so if you have that as part of your culture in your organization, so everyone that comes on board has someone that's looking out for them, has their best interest in mind, who's not necessarily their boss, it's often better not to be the leader of that group but someone who says, "I care about you, I'd like you to succeed. And that's part of my professional fulfillment is to help you succeed in your research or education, in your practice, in your life."

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And so that's a cultural element that we tried to nurture at Mayo with, you know, formal programs and certainly in an informal way, it was something that I benefited from. If you look back a generation ago, in much of healthcare in America, we had time for doing that. We had time for coffee breaks. We had time for lunches. We had time for all these activities that now have been squeezed out by the pressure of production. And so we have to be more intentional than ever to make sure that, particularly our younger folks on the team, have time to have a conversation with someone who's been through much of the experiences that might be able to help them in a positive way.

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**Geoff:** Very well stated. Thank you. And I want to return to this topic when we talk about your role in leadership and organizational development. But I'm gonna bring us back to our timeline that we've been sort of following here. And let me focus next, if I can, on the 10 years after you joined the staff at the Mayo Clinic and you became the chair of the radiology department. Tell us a little bit about that journey to becoming chair, and what led you to be selected for that prestigious post amongst the many accomplished radiologists in the department?

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**Stephen:** Well, my training ground for that at Mayo was I was program director for our residency and fellowship. I think we had 40 residents and fellows at the time back in the late '80s. One of the things that's unique at Mayo that I think is one of its more positive attributes of its organizational structure is that all physician leaders are chosen by the people that they will lead. So the process for every department is you're led by a physician. You have a full-time administrative staff that supports that so you can still practice medicine. And you can't be in a leadership position, whether you're CEO or chair or a dean, for more than eight years. You can anticipate a transition if someone goes for that full eight years.

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So a year ahead of time, we would send around staff, physician leaders from other departments to interview every radiologist. Back then we had just over 100 full-time staff, radiologists, and physicists. And so someone from cardiology or surgery or pathology would interview each one of us, one on one, and say, "Who would make a good leader? Who would not make a good leader? And what are the big issues in radiology?" They collate those and they come up with a list of three or four physician leaders that the staff trusted. And so it was set up for success because this pool of three, four radiology leaders or surgery leaders or cardiology leaders were selected by the people that they would lead.

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And then the final selection from those three or four leaders was made by other physicians from other departments related to that one. So pathology, surgery, nephrology, whatever, and they would pick the right one that would have the institutional perspective knowing that all three or four of those radiologists or surgeons or whatever the department had the trust to make them highly likely to succeed out-of-the-box. And so that's how it worked for me. That's how it works for every chair. You're selected by your peers within your department and outside your department. You have a term limit, and you still practice medicine.

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**Geoff:** Yeah, what a fantastically designed process, uniquely Mayo Clinic, and clearly marvelously successful over time. Now nearly concurrent with your appointment as chair, you were awarded an R01 from the National Cancer Institute to investigate low-dose spiral CT screening for lung cancer. Managing a large research program while stepping up to become department chair is a lot to take on at once. How were you able to balance your efforts between those roles?

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**Stephen:** Those were exciting big years. So the first...Lynn and I have been married 43 years. The first 20 we didn't have children, and we adopted them at that same period of time, two infants from South Korea that now have just finished college. And so not only we had two new children, infants, and I had, you know, the R01 chairship role. It's basically this team approach. The leadership model at Mayo is the social process to engage colleagues. It's driven by consensus, and teamwork, and collective decision making, and it would have been absolutely impossible for any individual to do that.

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But we had a full-time administrative partner. We had physician leaders at the department for practice education, research, finance, quality. And you know, you've had many research grants and you're exemplary in many areas including that, Geoff. The team approach where you have co-investigators, and lab assistants, and administrative staff, even though Mayo is absolutely physician-led at all levels, you have to lead with a team. And so the chairship of a department, the principal investigator role of a large grant, all those things are a collective team approach that is led by a physician.

[00:35:41] So you leverage that and you let other people make some decisions and take some of the workload because it's a wonderful way for them to develop as leaders. And often, the decisions are better or the process is better if it's a team approach than just being told the answer. Even if the answer is the same thing you would have done, if the team or other individuals are engaged in that, then it's better for their morale, and it's better for the overall results and culture of the organization.

[00:36:13] **Geoff:** Yeah. Very, very well stated and articulated that, as a leader, you're really only gonna go as far as your team is going to allow you to go. And the fundamental reliance on a team, and on building those relationships, and on sharing decision-making responsibilities is the way to leverage yourself as a leader. So thank you for articulating that. Now, thinking back to 1998, in the beginning of your time as chair, what do you recall were some of the main issues that you needed to address within the department and the institution as a whole?

[00:36:53] **Stephen:** So in the spirit of starting with a patient and working backwards, the way we looked at radiology is a major utility, major service organization, huge patient contact. In integrated group practice, we had to look at the best way to partner with all of our physician colleagues to have the best, seamless integrated care for patients. So we had to have same or next-day access for every one of our exams. We had to have reports out and finalized within an hour or two of every exam that was led that year. The first years that I was chair, we reached a million-exam mark. So we were doing a lot of exams. And in those days, radiology was growing at a double-digit pace throughout the country and at Mayo.

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And so the big challenge was keeping same or next-day access for all of our imaging. During those eight years, we doubled the size of our department. We hired more women than had been hired in radiology in the first 100 years. Radiology started in early 1900s at Mayo. And still kept up relationships. I met with all of the stakeholder department chairs from surgery to pathology to cardiology, and said, "How can we better serve patients? And, largely, for the diagnostic part, how can we better serve you as a stakeholder within Mayo Clinic and our integrated practice?" So it was building that social capital, the trust and interconnectedness of the integrated team from all these different multiple specialties with the patient at the center.

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So that was the goal, and the challenge is to keep that network where we were at. All of the conferences where radiology was appropriate, we had seamless, timely, excellent service for patients and for all of the other specialties that used our services and to keep growing, keep up with that.

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**Geoff:** Are there any signature achievements of which you're most proud that you accomplished during your time as chair?

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**Stephen:** We had sat down in annual strategic plan retreats, large goals. And some of it was operational. We just had to keep up with the growth in access and excellence. And at Mayo, we call it the three shields: practice, education, research. So, unlike many academic medical centers where research and education are the primary parts of their mission, nothing wrong with that at all, but it's very different at Mayo Clinic. At Mayo Clinic, the number one priority and strategic goal is excellence in patient care. And the reason that we do research and the reason we have one of the largest training programs for medical students, residents, and fellows in the country is to make patient care better in the number of ways that happen.

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So the big goals were to keep up with excellence in patient care, but not lose the research piece of it. And so we pushed hard to grow our research enterprise and did over those eight years where it grew dramatically. I don't have the numbers in front of me, but it was close to a two-fold increase in federal funding for research. And we funded that with external funding and supported to make the salaries whole with
internal funds so that someone didn't take a pay cut for doing education or research or administration. Everybody made the same amount of money.

[00:40:39] We have 11 divisions now. Organ systems and modalities are formal divisions within the department now that there are over, you know, a couple of hundred radiologists. And so we made that transition so that we could have leaders that were close to the folks doing the real work. If the chair of radiology had 150 direct reports, he or she wouldn't have a good relationship. So I think one of the things beyond doubling our research output over those eight years was developing a leadership program where we measured the well-being, where we measured the leader behaviors and we were able to get a pipeline of leaders for those 11 divisions that were connected to the well-being of the staff, which translates into the well-being of the group practice and for patients care. So it's a formal leadership development program that was diverse and inclusive.

[00:41:38] Geoff: And that's something that you developed during your time as chair?

[00:41:42] Stephen: Yes, it is. And so if you fast forward to the leadership development, my last role at Mayo, we doubled down on lessons from departments that had done well with leadership development so we could make that an institutional model.

[00:41:58] Geoff: Yeah, fantastic. Great story. After six years as chair, you pursued a Master's in Medical Management at Carnegie Mellon University. What led you back to school at that time?

[00:42:11] Stephen: Well, part of it was just the passion for learning. You think that a $15 billion not-for-profit, like Mayo Clinic, that most of the physician leaders would have an MBA or equivalent. And it's actually less than 5%. So I'm not sure that any of our CEOs, physician CEOs at Mayo Clinic have ever had an MBA or equivalent because they partner with MBAs, and financial officers, and HR officers, and so on. So it's unusual for Mayo leaders to have an MBA equivalent.

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But it was a time when I wanted to learn more, and I thought I could do better in that role as a chair and any future leadership positions if I learn more about finance, and accounting, and quality, and human resource opportunities, law, whatever. Turns out, the most valuable part of that whole time at Carnegie Mellon, which was a great experience, was a course on quality. It opened my eyes wide to the possibility for improving patient experience, for improving asset utilization, for driving out waste variation and defect with a systems engineering approach.

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And so I brought that back to Mayo. I brought it back to radiology where we put together a quality council, where we hired a systems engineer. And just with one internal collaborative of eight teams looking at reliability of care from interventional to MR, to CT, to chest, we improved the reliability with objective metrics and reduced our cost structure just with eight teams by $42 million a year. So that's when I learned that quality is free.

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If you prove to the eyes of the patient the reliability, the service, the asset utilization, it pays for itself. And that led to some great value creation work in the department of radiology, and it ultimately is the reason I became the chief quality officer for all 22 hospitals. So 24 hospitals a couple of years later. From an unexpected thing, a course that I thought would be the least helpful to me.

[00:44:34]
Geoff: Yeah, it's interesting how that works out. And it's also interesting you articulated the dyad relationship that is strongly present at the Mayo Clinic and the fact that healthcare leaders, you as the chair of radiology all the way up to the CEO has partners on the administrative side. And I was curious the extent to which after you had the Masters of Medical Management, did you find that your relationship to your dyadic partner changed and evolved?

[00:45:06]
Stephen: I think it evolved in a positive way. None of them were threatened by it. And at Mayo, a physician with a degree like that at that time may have been perceived as negative. And today, at most organizations, it's perceived as a ticket, sometimes a job requirement to be a physician leader. The dyad relationships are really special and they don't all work. And the organization takes a lot of time to see who would be the best partner for this physician leader. And we have this pool of half a dozen available administrative partners that would complement their skills and insights. And, you see, these
administrators also rotate. No one stays with radiology. No one stays with
cardiology or surgery for their career. They rotate every 4, 5, 6, 7, 8, 9, 10
years, to different parts of the organization.

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So that instead of being parochial and seeing the microcosm of radiology, they
see the whole systems approach of this integrated group practice. And it
enriches that process and helps us focus on the big machine of Mayo instead of
the cogs of Mayo. Many physicians couldn't be a chair at Mayo because
basically prima donnas and people that are too impressed with the name on the
back of their jersey don't work in this team environment with rotating leaders
and partnerships and social capital. What's important at Mayo is not the name
of the back of the jersey. It's the name on the front of the jersey. And so it's that
sort of, I think, servant leaders that have high degrees of emotional intelligence
that are set up for success in this kind of culture that we have at Mayo.

[00:46:56]
**Geoff:** Perusing your list of publications after 150 or so articles on clinical
imaging, almost entirely related to the chest, one reaches an article published in
the "JACR" in 2007 titled, "Reliably Better, Faster, and Cheaper Soufflés." Can
you paraphrase your message in that article and what led you to write it?

[00:47:19]
**Stephen:** Yeah, so it stems back to that quality course at Carnegie Mellon for
the Master's degree. And so I got then, after that time there, is that how can we
translate this into radiology reliability and radiology quality? And so most of
the Institute of Medicine "Crossing the Quality Chasm" and "To Err Is Human"
were totally disruptive to American medicine and quality and did a very
wonderful service to our profession.

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And for radiologists reading those, it wasn't clear what we should be doing. It
was clear what surgeons and internists, and intensivists, and primary care docs,
to some extent. But for radiologists, we had to kind of figure out, "Well, what
does that mean for us?" I did a lot of work with Dan Johnson, who then chaired
radiology down at Mayo Clinic in Arizona. So we wrote a number of things
together, not this soufflés article or commentary. But basically, we started this
Sun Valley Group. I was the head of the first ACR Quality Committee back in
the...long time ago.

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And the soufflés was basically saying that in order to be a superb chef, you have to have some standard work. You can still be creative with the decorations. You can still be creative with being innovative to advance your soufflé recipe. But if you're gonna be a superb chef, you need to have some standard work where there's negligible variation in waste and defect in your process, and made that metaphor for radiology. So let's say you have three dozen folks doing body MRI. If every one of them has their own best soufflé recipe, the system is set up for defects and flaws and waste to the eyes of the patient and the eyes of the organization.

[00:49:18] And so the best way to do MRI is to have those two dozen radiologists sit down together and let's decide on what we agree is the best way to make a soufflé for someone with this clinical indication. And then we have a standard work for MRI and now we can innovate. Because if we wanna see if there's a better way to do it than what we agreed on, we have to have a baseline of standard work to compare it. Otherwise, we're just comparing it to noise. We can't do good research and we're gonna have more defects of care without checklists, without standard work, without getting together to agree on the best way to care for patients as a group. And then innovating from that standard platform of patient care.

[00:50:04] So that's, in essence, what the soufflé metaphor was about is getting us as professionals to say, "We need to be innovative and creative and looking for better ways to do things." But it has to be from a platform of standardization in order to understand with hypothesis-driven improvements that will make the difference, and it has to be standard work because we care about the safety of patients. And it has to be standard work because we care about the efficiency and productivity of the organization that allows us to fund research and education and better patient models.

[00:50:42] **Geoff:** It's really a terrific articulation and very creatively presented. I recommend the article to anybody. I wanna ask you about a couple of things from it that I'm gonna pull out specifically. And at one point, you observed that innovation is essential, and it's best performed outside the production environment where failures are welcome and without dire consequences. How have you operationalized this principle in the healthcare environment and, in particular, what best practices might you identify for radiology leaders to innovate outside the production environment?
Stephen: So, standard of work is on the highway and the best practice there, I think, is to have the people doing the real work, all of the chest radiologists doing high-risk CT, agree on protocols for these indications. And so then you've got this platform. You're more efficient. The tech see a single protocol so the whole system runs more effectively and efficiently. And then when you have comparisons when patients come back, you're comparing apples to apples because you've got that basic of standard work.

But how do we get to advance that? Well, you advance it by learning from other researchers at other organizations. You advance it by doing your own scholarly work on the service road. The big service roads are in the lab, you know, whether it's MRE elastography or other innovations there. Or the other service roads are, well, we like this protocol for usual interstitial pneumonia, but we could make it better so let's get either permission to do it from the IRB, if that's needed, or run some sort of hypothesis-driven comparison on protocols, interventions so we're comparing it to standard work under IRB-approved processes so we can know if we're making a difference and we're not gonna hurt patients.

And then if our own research that's high-quality, hypothesis-driven against standard work shows the difference, then we all agree we're gonna change our process to something that we now know is better. And then you've got this iterative cycle of improvement and learning and you're not comparing to noise and you're building camaraderie and teamwork because people are getting together and saying, "This is how we're gonna take care of this kind of patient with this kind of indication with this kind of imaging."

Geoff: Now, you further observed that there is strong evidence to show that if talented, hard-working colleagues do not work together well, the team will consistently underperform others whose members work together well. You say though, "However, to really function optimally as a cross-functional team, each member must contribute some autonomy to create the best soufflé." How do you manage the balance between autonomy and satirnization [SP] when seeking to maximize the effectiveness of a cross-disciplinary team?
Stephen: So you start by building the camaraderie and social capital. And so you look at organizations. The Brookings Institute looked at this a couple of decades ago, and the valuation of American companies 30 years ago was predominantly bricks and mortar, tangible assets that you can touch. Hospitals, clinics, MR scanners, buildings. And 30 years later today, that's flipped, where the valuation of American companies, particularly healthcare providing companies, organizations, not-for-profits, the primary value is reflected in intangible assets. Human capital, intellectual capital. And the largest and most important of these is social capital.

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Economists measure that as the trust and interconnectedness of the people on the team and its ability to defuse ideas, to share ideas. It's a way for an organization to learn from defects of care, to learn from shortfalls in communication. And so nurturing the trust and interconnectedness of the teams, not just physician teams but the multidisciplinary teams, grows the ability of an organization to deliver the best care to patients every day and the best research, the best education when they're working together as a symphony. And so, you get there by having collective decision making and chairs and leaders who are interested in ideas and are more diplomatic than autocratic.

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And then you allow and celebrate and encourage autonomy for research activity, in education, and practice areas where there is just no need to standardize or standardization is impossible yet. And so it's a nuanced balance where people can have the pride of... You want your organization to be one where the organization makes you a better physician. And if you're just working by yourself...none of us can work by ourselves. Surgeons can't work without anesthesiologists and scrub nurses and all, the trainers. And so if you have a relationship that's not positive with any part of that integrated team, patients are going to suffer and you won't be as good a position as you can be if there's not the organizational support and connectedness of all the different disciplines. It's a team sport more than it ever has been.

[00:56:49]
Geoff: Yes. Now the Mayo Clinic is an academic center and it is easy to visualize the themes that you're describing and particularly, when you emphasize autonomy and research, and in education, standardization more in-patient care. But help us understand how somebody in private practice or a physician employed at a hospital network who's not part of an academic system
Stephen: The beauty of approaches like this is that they're totally agnostic to for-profit, not-for-profit, academic, community, ambulatory, in-patient. And so I'll make two statements. Some maybe think they're audacious and bold. But basically, I've learned that these are true, and they're evidence-based and they're validated, and they work outside of healthcare. So most of these, these two principles I'll share with you, healthcare was late to the party. So the first is, if we're gonna run an organization, there are two things that we should do that are patient-centered. And if we don't care about patients, we should still do them because they'll make us money.

And the first is quality. Patient-centered quality is ideal. And if we look at driving out waste, driving out variation, and driving out defects in our care, in our decision making, in our organizational systems and processes, we will become more nimble. We have a lower cost structure, be more productive, more efficient. And every industry, every business sector understands this better than healthcare. And quality is more important in healthcare than any other business sector. Not that every improvement effort or initiative will actually save money, but the portfolio of work that's driven by better, through the eyes of patients, will improve the resilience and lower the cost structure, improve the productivity and asset utilization of any healthcare system, private or otherwise.

The second principle, and is the only two that we need to guide us for the most profitable, and the most patient-centered, and the most resilient organizations is to understand the dividends of esprit de corps. Esprit de corps is the engagement and satisfaction and fulfillment and camaraderie of the people doing the work. And the more that staff have higher levels of esprit de corps, engagement, and joy, and fulfillment, their turnover rates go down. Their discretionary activity go up. The medical errors go down. All of the inefficient handoffs and institutional learning go in the right direction.

And so if organizations and leaders made investments in quality and esprit de corps, everything else falls into place if we listen to patients, or outside of healthcare, listen to customers. And it's basically that simple. And yet, there aren't many organizations that are driven by a patient sitting in the middle, and
the organization saying, "How can we have the best outcomes, safety, service for that patient? And how can we grow a workforce that is so joyful, they're never gonna consider leaving, and they have each other's back?" So if you want to get into the evidence basis for the literature, it's volumes and volumes and volumes. In fact, the book that I wrote published last year, in essence, says that. Focus on quality, focus on esprit de corps, with the patient in the center, everything else falls into place.

[01:00:51]
**Geoff:** You mentioned that very few healthcare organizations embody those principles. Why do you suppose that is?

[01:01:00]
**Stephen:** I think because we haven't had to. If you look at the other business sectors outside of healthcare, they have embraced the customer, and they've embraced quality, both of those as business strategies, not as necessary expenses. I think there may be two reasons. One is healthcare leaders traditionally haven't understood that those are business strategies, and they've looked at them, quality and staff engagement, as expensive luxuries. And the other is, because of how we're located and much of healthcare it has to be local because it serves communities, not nations, or multi nations, is that we haven't had that competition.

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And for at least much of the last 50 years, until recently, we've been able to just charge more money for our services instead of making them more efficient. And we haven't had the incentive to not do unnecessary exam. We spend over $3 trillion in this country on healthcare delivery. By the most credible resources at the Institute of Medicine, now the National Academy of Medicine, over half of that is waste. It's overused. It's failures of care delivery, failure of care coordination, sprinkle in a little bit of fraud and abuse, and unnecessary administrative costs. But by the most credible resources, half of what we do spend, that $3 trillion plus, is waste.

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And so that's the opportunity for listening to the patient and it's the opportunity for driving out waste, variation and defect. We just haven't had the economic and financial drivers to be lean. Our country spends twice per capita with all the rest of the OECD countries do on average for healthcare for the lowest quality results and outcomes of any other OECD countries in the West, in the world. So that makes America the lowest value healthcare delivery system in the world.
And so that's...and would that happen in any of the other business sectors? They'd be out of business, of course. But in healthcare, because we have different funding mechanisms, America spends more than any other country per capita with the worst results, by all objective measures, still with the lowest value. And so that has allowed us to persist in this because of those forces.

Geoff: Yeah, absolutely. So much to unpack in all of that, but we may have to leave that to a future conversation. But I do wanna return to your comments about esprit de corps and camaraderie. And you emphasized how important that is toward building an effective culture and for supporting high-quality care. How do you build esprit de corps and camaraderie in a radiology department?

Stephen: First of all, you have to have leadership that is committed to improving the professional fulfillment and engagement and satisfaction of all the colleagues in the department, or the organization, whatever level you look at. And they should be driven by this being the right thing to do because they care about the staff in the radiology department. It shouldn't be driven because it's gonna make them more money with better productivity and fewer defects and less turnover but it'll do that also. It should be driven by the spirit of building camaraderie, engagement, and fulfillment.

Starts with that. And then you need to have a measurement, and an annual measurement of those components of esprit de corps that are important for the culture of that department. You need to measure it in a confidential, anonymous way so that you have measurements down to the unit level about that leader of the unit level and the staff unit level so you have some way to make it better. Just like any scientific improvement, you have to have a baseline, an intervention, and another measurement. And so it basically comes down to commitment completers, a measurement, and then, in the book and the papers I've read, there are dozen validated evidence-based ways to improve those numbers in a meaningful way that will make a difference for staff morale and dramatically reduce burnout.

If you look at professional burnout among radiologists, we have distinguished ourselves as being at the top tier of professional burnout. Well over 50% of
radiologists by the best measures are experiencing some aspect of professional burnout, of emotional exhaustion, cynicism, loss of confidence, social isolation. And it's a shame because it shortens their careers. It hurts the patient. There are more medical errors, substantially. Medical errors increase twofold. Patient satisfaction, experience goes down dramatically, if they're interacting with professionals who are experiencing burnout. Those professionals lose their discretionary effort. They often leave the profession early. And the suicide rates among physicians are a couple fold higher than the general population.

For women physicians, it's threefold higher. And so there are some compelling reasons that we should pay attention to this. And most of them are...it's your heart of caring for each other and there are business reasons for doing it as well.

Geoff: Excellent. Within the context, returning to your role at this time point as the director for quality across 22 hospitals of the Mayo Clinic, help us understand what were the key issues that you were tackling during those five years? And if you would also talk a little bit about how your background as a radiologist uniquely informed you to take on this leadership role which cut across all disciplines of healthcare?

Stephen: chairing radiology helped me connect to the organization and see it at a different level than I did when I was just practicing chest radiology and doing research. And then with all chairs, you have experience on organizational committees and other roles, so you get the picture of this big integrated group practice. And you get the picture of those 22 hospitals in, I think, seven different states at the time. So you see this whole different matrix of this organization, and so a chairship helps you see that bigger picture of the organization.

I was the first chief quality officer at Mayo. We'd have quality tension forever. We started our systems and procedures group in 1948 and had over 317 systems engineers. They're basically quality experts, looking at the systems and processes, and the defects, and the waste, and the variation. Lean Six Sigma, you know, that's what system engineers do. But we didn't have a chief quality officer until the day that I was appointed by Dr. Hugh Smith and Denise Cortese. So we were dealing with the issues that the nation was and still is with preventable infections, and fallout from the use of high-risk drugs, narcotics,
and insulin, and preventable deaths, and needless variation that led to poor patient experience.

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And so we put in place the infrastructure or built on the existing infrastructure to measure everything from patient experience to every infection rate, every medication error, every mortality. We viewed every death at Mayo Clinic. We started doing that early 2000s when I took over this role. We had about 40 deaths a week at all of our hospitals. Most of those were anticipated. But we learned a ton about the systems issues involved in those deaths, even if it wasn't causative. And so beyond just doing what the joint commission, or IHI, or other accrediting organizations were telling us to pay attention to, we knew the systems issues at Mayo Clinic and that drove our improvement agenda.

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And, you know, during that period of time, St. Mary's Hospital, our flagship, had the lowest hospital standardized mortality rate of any hospital in the United States and in the United Kingdom. So it was driven by a research data approach to the systems, instead of chasing this defect there, we knew about hospitals and direct admits, and communication errors, and handoffs, and how to deal with them.

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And then of course, across these six or seven states where our 22, 23 hospitals were, we had to communicate those results in a way that Mayo knew what Mayo knows. And so if we fixed a process in one organization, that the whole organization then had the opportunity and we could be confident that the whole organization had that either safety net or refined process of standard work so that that death would never happen again, or that infection would never happen again if it was preventable.

[01:10:43]
**Geoff:** Remarkable, particularly the opportunity to take all of the things that you had learned from your formal education, the MMM program, your experience, and applying them in radiology, and then to take on leadership of hundreds of systems engineers to help direct them toward the systematic effort around improving quality and safety. That's a phenomenal opportunity and clearly one that you leveraged very, very effectively.

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Stephen: And so one of the questions you asked earlier about the difference of standard work and autonomy, so what we did at the system level for quality and safety was to say...we identified four or five big opportunities to improve experience, and reliability, and safety, and quality of patient care that we were gonna do everywhere. One place we'd start at but we would commit to... And then we said, there are regional differences and there are regional priorities and we want every organization of the three main group practices in Arizona, and Minnesota, and Florida and the health system, so there's four entities, to pick two that you're gonna do on your own that are particularly of interest to your experience numbers, or reliability numbers, or mortality numbers, and then share those with us.

[01:12:04] So everybody would have just four to six priorities a year and two of them that they owned themselves. And so it was a combination of standard work and individual site work that allowed them to feel like they have the right balance.

[01:12:22] Geoff: Yeah, terrific. Now, while serving as director for quality and safety, you established the Quality Academy, which certified 37,000 colleagues as fellows during your tenure. What is the Quality Academy and what led you to found it?

[01:12:40] Stephen: So our belief started with this premise, is that if we build this big, beautiful Quality Academy with experts and research and we have all of the answers with our systems engineers, and then send out memos to the organization, we are gonna totally crash and burn. The quality, like any strategy or operations or goal, has to be co-developed and owned throughout the organization. And so the best way to have a high-quality radiology department is not to have someone in a central office that has knights on white horses coming in to help and then galloping off into the sunset.

[01:13:25] The best way to have enduring quality within radiology or any department is to have that led locally and supported centrally with a way to diffuse learning and to have some expert support for where the real work is done at the departmental level. So the Quality Academy was an educational part of the organization where we developed our nomenclature. So we would all use the same words about the improvement and our value creation system that were different processes from Lean, Six Sigma, Theory of Constraints, down the list to project management, and co-creation with the team.
And then there were four different levels: bronze, silver, gold, and diamond. And we wanted everybody to have some idea what it meant when you talk about systems, and processes, and how to do improvement work including Rapid Cycle, Plan-Do-Study-Act, the improvement work. And so if you completed an improvement project, understood by an online test the basics of improvement work, you could earn a bronze pin to go on your name tag. And no one got paid a nickel for it. No one had got time for it. They got recognition. So we had the first two people in the organization to get a Quality Academy bronze pin for your name tag. BR CEO, John Noseworthy and his CAO, Shirley Weis. So it was by example, and by affirmation and by recognition. And we grew to 37,000. I think it's now in the 40-some thousand.

And I had countless people come up to me just so proud of this...I think it was a 75-cent pin that they had on their name tag, tell me what it was that they did. And that was their opportunity to feel important. And even if they were a custodian, or an accountant, or a manager away from the patient, they knew that their work was helping patients.

So this was a Mayo specific entity but that was available to any participant in the organization, as you mentioned, from somebody who is in housekeeping all the way up to physician leaders.

Exactly. So our housekeepers and the Environmental Services Group, they put together a checklist. They were interviewed when "Discovery Channel" did a documentary on patient safety and they talked to surgeons, and radiologists, and physician leaders, and saw a custodian down the hallway to shoot some B roll. And they asked Iris Crogger [SP] what her job was at Mayo Clinic. She said, "My job is to save lives," She was a custodian. She cleaned toilets. She sanitized doorknobs. She turned soiled sheets. And she had a checklist.

She saw surgeons with checklists. She saw nurses with checklists. They made a checklist of all the things to sanitize based on their work. The surface in patient rooms that had the most bacterial colonies in the cultures was the TV remote. So the first thing in the list that they would sanitize was the TV remote. And
they knew if they did their job well, there'd be fewer hospital-acquired infections. So getting the whole team involved was fundamental. It was a social movement. We didn't require it and 37,000 was about half of the 62,000 folks at Mayo. And it wasn't 100%, but we're getting towards there now, I think.

[01:17:21]
**Geoff:** That's beautiful. That is phenomenal. Now, you mentioned a principal target of the academy and your work as director of quality and safety is being focused on value and value creation for the patient. Talk to us a little bit about the balance of reducing costs versus improving outcomes and patient experience as a basis for improving value as a whole.

[01:17:47]
**Stephen:** So there is a balance and I think the best approach... In our early days, we didn't use value because we thought that might be misinterpreted, and it might be seen by clinicians as, "Well, all they're trying to do is make more money." And so for the first years, we just used quality, and for all of the enterprise-wide improvement work, and we asked all the departmental work to be driven by the patient at the center, and the quality work through their eyes, which is a fundamental of Lean is ever to be looking at the customer and working backwards from there.

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And so everything that we did on purpose used the term "quality" and had at its core driver some element of patient experience or quality, or mortality, or reliability. And so, if you do that, then you engage the professionals in the fulfillment and satisfaction of their career. And guess what? If you look at all the things that you would do with the patient at the center and talking about quality and reliability, the portfolio will categorically save money across the line. So we looked at blood products for use for elective cardiac surgery. And we looked at standard work across the enterprise for radiology, contrast administration. And every one of them that we used improved the patient results one way or another and saved us money.

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The blood product one was $6 million of cost structure reduction. Once we got the cardiac anesthesiologist and cardiac surgeons to agree on the best practice, they found out that they were using more than they should have been, the blood products. They saved a bunch of money and results improved the patients. So it should always be driven by what's the best thing for patients and what's the best
thing for staff, and that will get you at a result that will lower your cost structure, improve your asset utilization, and improve staff experience.

[01:19:56] Geoff: Excellent. After six years as director of quality and safety, another pivot came when you transitioned into the role of medical director for leadership and organizational development. Tell us about how that transition came about and how your focus within the organization evolved within this new role.

[01:20:16] Stephen: There was a time when the senior leadership transitioned from Denis Cortese to John Noseworthy, a pulmonologist to a multiple sclerosis neurologist. And we wanted to, as an organization, improve our physician leadership work. And so they created a new position. We had done leadership programs, you know, for decades, but we didn't have a formal office just like we didn't have a formal office for the chief quality officer. And Dr. Noseworthy asked me to head that up. And so my partner for that was Grace Gorin [SP]. She was a career, human resource leadership and organization development kind of person. And my career at that point, this is kind of my capstone experience, was clinical and operational in the department level and then enterprise-wide and the quality.

[01:21:06] So we both brought very different things to the table. And it was a great example of how a dyad relationship can work in a clinician-led organization. And so I brought many of the quality principles to the development space. And I brought the experience of a physician leader of a department to this leadership development space. And we put together a pipeline of leaders. We mapped out 4,500, 4,600 positions at the time, the 242 physicians who were in leadership positions, deans, chairs of divisions, departments, CEOs, and so on. And for every one of those leadership positions, then in the spirit of quality, we put together succession pools that we measured for these leaders that would be rotating no later than after eight years of service. And then they’d rotate to another leadership position or back into the practice.

[01:22:06] We measured those succession pools for readiness to step into that role. We measured them for ethnic diversity and for gender diversity, and for the effectiveness of their leadership capabilities for all those 242 positions. So we had this pipeline of leadership where you go from a quality chair of radiology to a program director of radiology, to a vice-chair, to a chair, to an institutional
role, that we did in a methodical way where we could measure results and see how we could improve the well-being of the organization, the well-being of patients, the well-being of staff by improving leadership capacity.

[01:22:49] **Geoff:** That is a fantastic direction for organizational development. The whole notion of really being so directed in succession planning. I can't help but reflect on somebody who I worked for in the past who told me directly that he did not believe in succession planning, which is kind of an interesting and almost antithetical notion when you articulate the value proposition of doing it in this way. But you define such a well-scoped and objective process.

[01:23:21] It sounds like you almost had to invent the instruments of assessment that you were referring to, the notion that you are going to look at all of these leaders and rate them or grade them on certain characteristics. Presumably creating an opportunity for them to learn from whatever their current deficiencies were so that they would become better over time. Talk to us a little bit about developing those instruments and how do you actually confidently measure some of the characteristics that you sought to measure.

[01:23:55] **Stephen:** Yeah, so we started with the premise based on 150 years of experience. One way that we were confident worked was to develop leaders internally and not look elsewhere. So I'm not saying it's the only way to do it. I'm not even saying it's the best way to do it, but we knew it worked so we wanted to fine-tune and polish that. It's very different from the traditional academic medical centers, as you know, where most of them don't invest in succession planning and most of them look elsewhere to bring in chairs to the organization. That's a higher risk move than developing someone where you've built social capital, where you know their warts and blemishes, but the radiologists still want this man or woman to be their leader and then the organization picks it.

[01:24:44] So we built on something we knew worked. We were confident it was a good system. I'm not being arrogant and saying it's the best system or the only system but we know it worked. And so we doubled down on that. And so one of the systems we researched, Tait Shanafelt and I, he was the head of our...president of staff at the time, is a leukemia doc. And he was also a researcher in burnout.
And he was also head of our survey group, the physician lead in partnership with our CHRO, the chief human resource officer.

[01:25:15]
So we basically have an annual survey of all 60 some thousand male staff, from accountants, and supervisors, to CEOs, to every doc, every nurse, every year since like in 1982 we started it. And included in that we then evolved some leadership questions. So every staff member would answer, at the time it was a dozen questions, about their direct report leader, their supervisor, their manager, their department or division chair that they reported to and worked with annually. And what we found in a nutshell was there are five behaviors that if a radiology chair, a radiology unit or work unit, head or a nurse manager, or accountant leader, lived authentically those five behaviors, their staff rates of burnout would be dramatically lower.

[01:26:12]
In fact, on a 60-point scale, every point upwards in this annual survey about your supervisor, your leader that you report directly to, for every 1 out of 60 points upward, there was a 9% improvement in camaraderie, engagement, fulfillment, esprit de corps. And for every 1 point upwards in that 60-point scale, there was a 3.3% lower rate of professional burnout. This was a study with doctors. We scaled it from the 242 physician leaders to 3,300 point-of-care non-physician leaders.

[01:26:52]
And they studied it again. And the results were even more dramatic. If the staff perceive their immediate leader as living these five behaviors, they flourished with dramatically lower rates of burnout and higher rates of engagement, satisfaction, fulfillment, lower rate of turnover, higher rates of discretionary activity, lower rates of social isolation and emotional exhaustion. It's what you would want in an organization, to have them work for a leader like that. And you might be wondering what those five behaviors are.

[01:27:24]
Geoff: I was just gonna ask you that.

[01:27:26]
Stephen: They're not rocket science. They're just basic, common courtesy, civility. They're just not common practice. So the five behaviors are this. Number one, "I appreciate your work today. Thank you very much." Number two, "I'm interested in your ideas. What do you think we should do?"
three, "I communicate transparently. So here is everything I know about radiology department, the chest group. Let's figure this out together. I'm respecting you. I'm engaging you as a colleague, as a partner, not as a minion."

[01:28:08]
The fourth behavior is, "I'm interested in your career. What's your dream at Mayo Clinic, and how can we make that together? How can we make that come true?" And the fifth behavior is, "Does your supervisor, the leader to whom you report, does he or she make everyone on the team, regardless of creed, or color, or background, or clothing, does he or she make you feel welcome and respected?"
And the leaders who staff thought that they performed in the spirit of those five behaviors, flourished.

[01:28:55]
And so we developed. We measured it. So every leader would see...I would sit down with all the department chairs in Rochester, 41 of them, and show them their results through the eyes of their staff on the bell curve, and we developed a plan for improving that. Almost all of them shared those results with their staff, say, "You don't think I'm very good at helping you with your career. My goal for this next year is to help every one of you with your career, and I'm hoping that my results on this staff survey will be better."

[01:29:26]
And so we did that because it mattered. We did it not in shame and blame. We did it not to rack and stack. We did it to improve the care of patients. Because patient results with engaged and fulfilled staff are dramatically better than if they're burned out or disengaged.

[01:29:45]
**Geoff:** Bravo. Terrific. Now, as the director for leadership and organizational development, can you help us parse these two concepts? While I imagine there was ultimately substantial overlap between the mission of leadership development and organizational development, how did you approach these two aspects of your role in defining your agenda?

[01:30:11]
**Stephen:** Yeah, they are intricately related and interwoven. Leaders matter. And so we looked at our leader model to make sure it was clear to everyone that the leaders were selected by the people that were gonna be led and affirmed by the organization. There would be a term limit for them. And that part of the
succession process was owned by them. So when I would meet with them every year, we would make sure that they understood that...we had asked them, "Here is your succession pool. It's not as diverse as we want so how can we improve that?" And their readiness needs to be improved or whatever. So it was a partnership just like quality. This couldn't all be done by a central office.

[01:30:55]
So the leadership development piece of it included executive coaching. We trained all of our chairs as executive coaches. They weren't certified with a national certification but they had a two-and-a-half-day session where they understood how to coach people. And mentorship was something that most of them grew up with. And every incumbent leader was offered an executive coach, either internal, and the higher level in the organization you were offered an external executive coach. It was an investment in them as a leader and as a person. And then we blended that then with action learning, more organizational development, processes, and work.

[01:31:39]
So almost everything we did was more action learning. It wasn't a simulation. It wasn't a lecture. It wasn't a case study. It was actually multidisciplinary teams or occasionally monodisciplinary teams doing the real work of Mayo Clinic, of improving care, communication, and relationships in the context of a learning environment where they would reflect and share with folks from other departments, other parts of the organization, with administrators, with doctors, with clinicians and executive coaches. So this action learning piece was an organization development theme that characterized most of our OD work where we were doing real work, making progress, and learning by reflection as we did that.

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And it was based on a lot of Lombardo's work from the Center for Creative Learning where we understood from his research that leadership and organization development, particularly leadership development, it's a 70:30:10 ratio. So 70% of leadership development comes from being a leader and reflecting on being a leader, and learning from that scrape or bump or bruise about how could I do that better next time? So most of leadership development comes from being a leader with supportive colleagues where there's administrative partner or someone to reflect with. Twenty percent is coaching and mentoring and role models. So we pumped our whole system of leadership and organization development with role models, and mentors, and coaching programs in a formal way.
And then the 70%, the 30%, the 10% is what everybody jumps to right away for leadership development is, "Well, let's go to a course and let's teach leadership, and let's do these case studies and read this book." And that's important, but it's the 90%, the 70% and the 30%, the being a leader, the role models, and mentors, and coaches that are fundamentally how you make important strides forward in organizations for its leadership capability and not reading about it and not going to a course on it.

Geoff: Yeah, so much opportunity for engagement around leadership and organizational development in this action-oriented approach, as you described. Describe to us a little bit about what kind of access you and your team had to the scope of leaders and other participants in the healthcare delivery system at the Mayo Clinic in order to embody this operation. I mean, was it an hour a week? Was it a day a week? How was this structured formally so that you had access to people who were busy providing clinical care?

Stephen: We had access to everything that we requested as being optimal for our strategic plan that was approved at the highest level by the Board of Trustees. And part of what made it particularly enticing for the most senior leadership was this action planning or action development where we would...action learning where we would be doing real work. We had an annual rhythm of looking at, we call it fresh eyes. There were seven different programs or initiatives or ideas that the Board of Governors said and our CEO said, we're either doing, we're starting to do, we wanna do, and we want someone to figure out how to do it or to take the first steps.

And so it was real work for a chair of radiology, or a chair of surgery, or a chair of pediatrics, to be doing something out of their department for the organization. So it was real work. You got the dividends of getting something done for the organization that they were gonna do anyway, and you got organization development and leadership development as a dividend of getting that real work done. All the leaders at Mayo have 10%, 20%, 30%, 40% time, depending on the role, the physician leaders. No one has more than 50% time for their leadership development. Even if you're the chair of surgery or the chair of radiology, half of your time is for clinical or research or the rest of it. And that leverage is the dyad and the team approach.
And so part of that discretionary time that's already paid for, part of that discretionary time that all leaders would have, all these title leaders was to be used for leadership development, coaching programs. And that was just an expectation of that time that you had, and that was an investment of you and had dividends.

Geoff: Amongst all the issues that you have addressed over these past years, physician burnout stands out as becoming a main focus for your energies, particularly over the past few years. In fact, you mentioned you just published a book which is titled "Mayo Clinic Strategies to Reduce Burnout: 12 Actions to Create the Ideal Workplace." What led you to hone in on burnout at this moment in time?

Stephen: Well, that evolved in that last position I had at Mayo, director for leadership and organization development. And so midway through that period, we've been measuring staff engagement and satisfaction, and we added burnout to that annual measurement of all staff. And we saw numbers that were dismaying when we started measuring that. They were above national averages. I mean, the burnout rates were below national averages, but they were still higher than we wanted them to be for what we wanted for each other.

And so our CEO at the time, John Noseworthy, set this as one of his three priorities for the organization and to be accountable to the trustees for. And so in the last four years or so, in this role, that was our office's top priority with all the leadership and organization development. And it's a natural fit, was to measure burnout and to dramatically reduce its prevalence among the professionals at Mayo, and then eventually all the staff at Mayo that we scaled across the 65,000 members.

And so we got into that and, basically, it ended up being a reflection of my whole experience at Mayo as a chair, as head of quality, and in the leadership pipeline piece, to look at how we can use leaders, and measurements, and camaraderie, and actions to improve. So instead of trying to get rid of something bad, professional burnout, and talk about all the terrible things that does to individuals and to colleagues and families and patients, but to focus it...
more on esprit de corps. So how can we build the professional fulfillment, and joy, and satisfaction, and camaraderie of each other?

[01:38:57]
And so from that work led to the book that summarizes what we think will be helpful to the rest of the world. All the royalties from that book go to charity. We didn't have any financial interest in selling more copies. We just wanna share with the world what we...you know, it's incomplete and imperfect but we know there are 12 things that really work. They make a difference. They've been validated in healthcare with good research. And most of them we learned from other business sectors that have paid more attention to the business strategy of employee engagement than healthcare. And that's, in essence, how that evolved. And then when I retired from Mayo three and a half years ago, I said, "Well, I don't wanna stop working," so I wrote the book with Tait Shanafelt, my co-author.

[01:39:42]
Geoff: Well, congratulations. I have little doubt that this is gonna be a very, very important contribution and I'm personally looking forward to reading it. I would love to unpack the 12 actions here but I think we'll have to save that for those who take advantage of reading the book. In our remaining minutes, I wanted to ask you a little bit about some of your personal endeavors. Your career journey has been absolutely fascinating and you also have some pretty interesting avocations. I understand that you founded a winery 20 years ago with friends that is producing Gold Medal French oak cabernets. Tell us about that project and how you get to engage.

[01:40:24]
Stephen: Well, that was something I did...I asked a few friends including my older brother when I transitioned from chair of radiology to... I love plants and I have orchids all over the house and I love nurturing things. And the miracle of photosynthesis is just incredible, to take little sunlight and a plant that can transition that into a little bit of sugar. And, basically, these four organisms of vitis vinifera, vine, cerevisiae, the yeast process, and the cyanococcus for the secondary fermentation and the Quercus alba, the oak. It's four organisms that live in nature and putting those together as a team and you can make wine.

[01:41:08]
So we bought some acreage and we had a business partner who did all the work. We go out there, we planted the vineyard ourselves and got a winery that we invested in, and ended up with our wine in 41 different restaurants making
1,200 cases a year. It was just a fun experience with friends to learn about something and to make something with four organisms and a little sunlight. And so we actually sold it just a couple of years ago intact to an airplane pilot who wanted to retire, and we had mentored and coached and rented out some of our excess capacity to him and he took it over.

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And the vineyard was in eastern Oregon and the winery was in western Idaho, and with the mythological characteristics of Napa Valley, with about 2,500 global degree days which is the amount of sunshine and temperature and the photosynthesis range, which is basically the same as Napa Valley without the brand. But Napa Valley, an acre is a quarter million dollars. And farmland that we bought, it was farmland cost of $2,500 an acre. So like a hundred-fold cheaper. You know, it's like the quality, you can make much higher value wine even though you might not have the brand.

[01:42:24]
Geoff: Wow, it sounds like it was really a lot of fun...

[01:42:27]
Stephen: It was.

[01:42:28]
Geoff: ...and you were just so engaged in it. I'm surprised that you sold it.

[01:42:32]
Stephen: Well, our manager wanted to transition and it was a lot of work for him. He was getting of that age. And we didn't wanna dismantle it and we just had the opportunity of someone who wanted to buy the whole thing so we did.

[01:42:44]
Geoff: Understood. Good. Now you've also completed 39 marathons, either running in shoes or on skate skis, and you train every day. Talk to us about how you budget your time to include such a strong focus on your physical well-being amongst so many other activities?

[01:43:06]
Stephen: Well, I kind of look at my life as a quality improvement project. And one of the best ways to improve work performance is to have a balance and to be physically fit, and get in touch with sunlight and with nature. So I never looked at it as trying to balance it because every time I would run, or lift, or ski,
or meditate, or seek time with nature or sunlight, it improved my productivity and discretionary effort or my thinking. I came up with so many ideas or dealt with so many stressful situations when I was doing one of those activities that it basically improved and enhanced the quality and quantity of my work.

[01:43:55]
So it was an investment of that and it was one way to substantially improve my well-being and durability as a leader. And I can't imagine, if I hadn't done that, how long I might have lasted which may not have been as long.

[01:44:11]
**Geoff:** Yeah. Looking back, what would you say have been your most rewarding moments as a leader?

[01:44:22]
**Stephen:** Well, you know, everything we talked about, Geoff, I found to be very rewarding. And some of those jobs I wouldn't wanna do again, but I learned a ton from them. They were filling and brought me the joy of learning and the joy of helping someone. And almost all is tracked back to the patient. But this social process of engaging colleagues helps them become better leaders, helps them to be satisfied with another dimension of their life. And each element, if you are successful in it, and I was successful in some and not others, but the ones where you can make a difference, you improve the vitality and well-being of those colleagues with whom you worked, and who you worked for. And then as collectively we do that, it improves the vitality of an organization.

[01:45:20]
And so I had the joy of working for, by choice, one organization for three decades that allowed the culture and the team and my leadership work through some of the successes to be better than it would have been if I haven't been there. So that's the fulfillment piece. With all the warts and blemishes, at the end of the day, if you can look back and feel like you left a team or a group of people, a department, or an organization a little bit better than it would have been without you, that's an enduring fulfillment that I'll treasure as long as I'm around.

[01:46:01]
**Geoff:** Well, Steve Swensen, I can't thank you enough for your insights, your inspiring vision that has helped to pave the path for organizations that are perhaps just stepping out on the journey of leadership development,
organizational development, establishing a culture where value for the patient is at the center and where that organization supports the development of leaders and a structure for the organization that allows the realization of those core principles of value for the patient. This has really been a fantastic conversation and I thank you so much for joining us on "Taking the Lead."

[01:46:46]  
**Stephen:** Well, Geoff, thank you so much for taking the time to have this conversation with me. Thank you for what you've done for our profession. It's priceless and important. Leaders matter and we can make a difference by helping others lead.

[01:47:09]  
**Geoff:** Please join me next month when I speak with Katherine Andriole, associate professor of radiology at the Harvard Medical School, assistant medical director of Imaging Information Technologies at Brigham and Women's Hospital, and the director of research strategy and operations at the Massachusetts General Brigham Center for Clinical Data Science where she enables machine learning and powered research across the partners' healthcare system, coordinating the execution of a portfolio of clinical and translational research projects and machine learning and artificial intelligence from inception to real-world implementation.

[01:47:47]  
From the design and deployment to picture archiving and communication systems prior to their commercial availability, to image processing and analysis, business analytics, and machine learning, Dr. Andriole has been a leader in biomedical imaging informatics for over 30 years at both UCSF and Harvard. Recognized as the inaugural winner of the RADxx Trailblazer Award, Dr. Andriole has been a revered role model for women within the field of imaging informatics and data science.

[01:48:21]  
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[01:49:01] Finally, thank you, our audience, for listening and for your interest in radiology leadership. I'm your host, Geoff Rubin from Duke University. We welcome your feedback, questions, and ideas for future conversations. You can reach me on twitter @G-E-O-F-F-U-B-I-N or the RLI, @rli_acr. Alternatively, send us an email at rli@acr.org. I look forward to you joining me next time on "Taking the Lead."