# Linda Elting, PhD MPH

Interview #63

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# Linda Elting, PhD, MPH

Interview #63

## Interview Profile

**Interview Information:**

Four interview sessions: 19 February 2015, 5 March 2015, 26 March 2015, 23 April 2015
Total approximate duration: four hours
Interviewer: Tacey A. Rosolowski, Ph.D.

For a CV, biosketch, and other support materials, contact:

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**About the Interview Subject:**

Linda S. Elting (b. 10 February 1951, Houston, Texas) came to came to MD Anderson in 1970, working in coding and data collection in the Department of Epidemiology. She joined the faculty in 1991 as an assistant professor in the Department of Epidemiology and today holds joint appointments in the Department of Biostatistics & Applied Mathematics, the Department of Health Services Research, and the Department of Health Disparities Research. Dr. Elting is best known for conducting research on the value of care and the effects of health policy on delivery of care. Trained as an epidemiologist, Dr. Elting has brought a populations-based focus to research on MD Anderson patients and Texas cancer patients in general.

Dr. Elting retired to part time in January 2014. She served as Chief of the Section of Health Services Research in the Department of Biostatistics and Applied Mathematics from 2001 until her retirement. She worked with MD Anderson's Institutional Review Boards for many years and served as Chair of IRB IV, created to review protocols for non-clinical and community based research.

**Major Topics Covered:**

Personal and educational background

Career shift from a classified employee to faculty member

The epidemiological perspective on healthcare issues

Creating a unique niche in epidemiology studies: value of care

Research on treatment for infections, value of care, effects of health policy, Texas health care systems

Training clinicians and researchers to take a population focus on treatment and care delivery

History of MD Anderson Institutional Review Boards

Women's careers at MD Anderson

Mentoring researchers and leaders

MD Anderson growth and changes to MD Anderson culture

# Linda S. Elting, PhD, MPH

Interview #63

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# Linda S. Elting, PhD, MPH

Interview #63

## Segment Summaries

Interview Session One: 19 February 2015

Segment 00A
*Interview Identifier*

Segment 01
*An Early Interest in Writing Serves a Career in Science*
A: Educational Path;
2:40 – 7:22+

Story Codes
A: Personal Background;
A: Professional Path;
A: Influences from People and Life Experiences;
A: Character, Values, Beliefs, Talents;

In this segment, Dr. Elting briefly talks about her parents then sketches her early educational experiences. She explains that though she took science and math courses, she loved to write and planned on focusing on writing and literature when she attended Lindenwood University in Saint Charles, Missouri. She explains how her skill in writing has served her career in the sciences. Dr. Elting talks about the learning environment and then explains why she returned to Houston to attend the University of Houston.

Segment 02
*Inspired by J Freireich and Doing Support Work for MD Anderson Researchers*
A: Joining MD Anderson/Coming to Texas;
7:22+ - 11:37

Story Codes
A: Personal Background;
A: Professional Path;
A: Inspirations to Practice Science/Medicine;
A: Influences from People and Life Experiences;
B: MD Anderson Culture;
B: MD Anderson History;

In this segment, Dr. Elting explains that after a friend suggested she work at MD Anderson to make money for college, she got a job as a clerk-typist in the Tumor Registry, where she learned about diagnoses, anatomy, and treatment. She tells an anecdote about how she came

to attend rounds one day in Developmental Therapeutics. The outcomes for patients that day were particularly bad, she recalls, and Dr. Emil J Freireich [Oral History Interview] talked the faculty to remind that that a cure could be discovered at any moment. She says, "I was a goner," she was so inspired.

Segment 03
*Finding a Way to Have a Research Career at MD Anderson*
A: Professional Path;
11:37 – 22:29

Story Codes
A: Personal Background;
A: Professional Path;
A: Inspirations to Practice Science/Medicine;
A: Experiences Related to Gender, Race, Ethnicity;
A: Influences from People and Life Experiences;
B: Controversy;
B: MD Anderson Culture;
B: MD Anderson History;
C: Mentoring;

In this segment, Dr. Elting explains why she rethought her career path so she could come to MD Anderson and conduct research. She was interested in her work in the Coding Department, where she was recognized, and rewarded. She decided to switch her studies to medicine and thought of applying to medical school, however, ultimately attended Houston Baptist University for a degree in Nursing (BS conferred in 1974). In 1976 she began working at MD Anderson working for Dr. Gerald Bodey [Oral History Interview]. She explains the pharmacological studies she worked on and notes the status of research nurses.

Dr. Elting describes the unstructured environment in Developmental Therapeutics, where it was possible to be innovative. Dr. Elting tells a story of taking such an opportunity to aggregate data on one study when Dr. Bodey was away. She observes that some people thought it was presumptuous to take over a task usually performed by a physician, a fact that led to a divide between floor nurses and research nurses, but that didn't stop many people from simply taking over a task. Dr. Elting notes that in an unstructured environment, mentoring is unstructured as well.

Segment 04
*Earning a Master's in Public Health and a Landmark Study of Infections*
A: The Researcher;
22:29 – 33:12

Story Codes
C: Discovery and Success;
A: Overview;
A: Definitions, Explanations, Translations;
A: The Researcher;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;

D: The History of Health Care, Patient Care;
C: Evolution of Career;
C: Professional Practice;
C: The Professional at Work;

In this segment, Dr. Elting explains the work she did under Dr. Gerald Bodey while also attending the UT School of Public Health to work on her Master's and supplement the information she knew she lacked. She talks about the open environment that provided her with a good learning experience. She notes that she was interested in infections caused by multiple organisms. Dr. Elting explains that she did a large study of polymicrobial septicemia, which still may be the largest study ever conducted.

Next Dr. Elting explains the main lessons she learned during her Master's program: that she could offer clinicians a view of entire populations (rather than a focus on individual patients); that she could strengthen studies by insisting that the basic research question be articulated. She also explains that she learned to communicate effectively with clinicians and non-biostatisticians by using graphic charts and pictures, rather than tables of numbers.

Segment 05
*A Doctorate in Public Health and Appointment to the Faculty*
A: Professional Path;
33:12 – 38?/39?

Story Codes
A: Professional Path;
B: MD Anderson Culture;
B: Institutional Processes;

Dr. Elting begins this segment by explaining that her Master's program gave her confidence in the quality of her own research questions and helped spur her to pursue doctoral work.

Dr. Elting explains why she never considered leaving MD Anderson.

Next she sketches the skills her doctoral program helped build, particularly computer skills. She observes that computers were not much in use in research at MD Anderson during the eighties.

Next Dr. Elting explains MD Anderson rules that made it difficult for her to be promoted to the faculty. She also notes that it was difficult to get some physicians to see her as a colleague when they had known her for years as a nurse/technician. She describes her duties once she was promoted to the faculty.

Segment 06
*Early Research Studies*
A: The Researcher;
38?/39? – 46:42

Story Codes
A: The Researcher;
C: Discovery and Success;

B: MD Anderson Culture;
B: Devices, Drugs, Procedures;

In this segment, Dr. Elting talks about research studies she conducted just after receiving her DrPH. She worked on two emerging types of infections (alpha streptococcal infection and pseudomonas maltophilia) and explains how here research was constructed to enable her to draw solid conclusions about infection risk factors.

Dr. Elting notes that she conducted this research with Dr. Gerald Bodey's research money, then explains that she was able to get an independent grant to study how to effectively present data from clinical trials so clinicians would understand and use it. She designed a study using comparing the use of numbers versus pictures in communicating information about drug toxicities and patient responses. It was clear that pictures worked best, and Dr. Elting's conclusions were adopted at many other institutions. Dr. Elting notes that MD Anderson has always been "behind the curve" in adopting medical records systems.

Segment 07
*Research Focus Expands to Risks and Outcomes of Care;*
A: The Researcher;
46:42 – end of session

Story Codes
A: The Researcher;
A: Professional Path;
C: Mentoring;
C: Discovery and Success;

Dr. Elting begins this segment by explaining that the threat of infections was decreasing and so she expanded her research focus to supportive care. She transferred to the Department of General Internal Medicine (GIM) and worked with the Ambulatory Treatment Center.

Dr. Elting notes that she was advised to begin working independently of Dr. Gerald Bodey, as many professionals attributed her research to him because of their long working relationship.

Dr. Elting explains that in GIM she conducted research on nausea and vomiting. She also developed an interest in effectiveness, efficiency, and cost and conducted time/motion studies and studies to demonstrate the effectiveness of expensive drugs that insurance companies were unwilling to cover. She began to study economics.

She then makes observations about her own learning and mentoring styles.

Dr. Elting discusses the first study she conducted independently of Dr. Gerald Bodey: a study of the frequency and outcomes of thrombocytopenia (low platelet count) and the cost/benefits of transfusion versus drugs to treat the condition. This study brought her recognition and established her as the primary researcher in the field of risk and the outcome of care.

## Interview Session 2: 5 March 2015

Segment 00B
*Interview Identifier*
about 1:04

Segment 08
*A Study of Thrombosis Opens New Research Niche in Side Effects*
A: The Researcher;
About 8 minutes

Story Codes
A: The Researcher;
A: Professional Path;
C: Discovery and Success;
C: Discovery, Creativity and Innovation;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
B: MD Anderson Culture;
C: Patients;
C: Patients, Treatments, Survivors;

Dr. Elting explains how her study of thrombosis in cancer patients enabled her to establish a new research niche.

She explains how her study of thrombocytopenia led to her interest in thrombosis and helped shape her approach: looking at individual patients at MD Anderson and carefully describing symptoms in this large population in a way that had relevance to current practice. This was the beginning of her focus on side effects, she notes.

Next, Dr. Elting compares her approach to the typical retrospective study often conducted by fellows. She notes that the most frequent question she received from reviewers was, Are these symptoms as bad outside of MD Anderson, in ordinary practice? She explains why MD Anderson has a different patient population, but notes that it was possible to generalize this information to the general population and she began to look at expanding studies accordingly.

Segment 09
*Departing from Epidemiology and Conducting Cost-Effectiveness Studies*
A: The Researcher;
about 15 minutes

Story Codes
A: The Researcher;
A: Professional Path;
C: Discovery and Success;
C: Discovery, Creativity and Innovation;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;

D: The History of Health Care, Patient Care;
B: MD Anderson Culture;
C: Patients;
C: Patients, Treatments, Survivors;
D: Fiscal Realities in Healthcare;
D: The Healthcare Industry;

Dr. Elting talks about how her interest in value of care evolved.

She sets context by noting that in the 2000s many states began requiring that hospitals report the quality of results, making available data about procedures and surgical outcomes. Dr. Elting was able to look at toxicities that caused death and fees for procedures. She explains that expensive and effective new drugs were available to treat toxicities, but insurance companies were unwilling to cover the cost. She says that she initiated cost effectiveness studies to demonstrate that the more expensive drugs ultimately saved money. Her studies were very successful at convincing payers to change their policies. She then talks about the reactions of her colleagues to her change in research direction.

Dr. Elting explains that this research took her away from traditional epidemiology and allowed her to differentiate herself, a fact that was critical to her success.

Dr. Elting tells a story about a period when General Internal Medicine didn't have enough beds because they were filled with patients made too sleepy to function by their anti-toxicity medications.

Segment 10
*Research on Health Effects of Policy Decisions and a Study of Childhood ALL*
A: The Researcher;
about 17 minutes

Story Codes
A: The Researcher;
C: Discovery and Success;
C: Discovery, Creativity and Innovation;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
C: Patients;
C: Patients, Treatments, Survivors;
D: Fiscal Realities in Healthcare;
D: The Healthcare Industry;
D: Politics and Cancer/Science/Care;
D: Women and Diverse Populations;
D: On Texas and Texans;
B: Beyond the Institution;
B: MD Anderson and Government;

In this segment Dr. Elting talks about her current research focus on the health effects of policy decisions made by state and local governments.

She begins by noting that there is no federal health policy in the United States, so policy decisions made at a “semi-macro level” have an effect locally on subpopulations. Dr. Elting gives an example from Texas health care.

Dr. Elting explains that to study these effects, she began to study outcomes by volume of cancer procedures. She then gives an example of a study she conducted on the availability of mammogram machines across Texas, showing that in areas with no machine, patients suffered more late-stage breast cancer. She notes she is currently working with a pediatric surgeon looking at pediatric cancer in Texas.

Dr. Elting notes that few families can afford care for childhood cancer. She explains the funding of the study and its impact. She gives an example of partnering with the University of Texas Medical Branch to produce video talks and other educational materials for communities and primary caregivers. She mentions some other efforts to disseminate information beyond academia.

Dr. Elting talks about why Texas is an interesting state to study and why it allows conclusions about how barriers to care operate and affect outcomes. She talks about interventions her office has helped to create.

Segment 11
*Providing Data to Inform Policy Makers*
A: Overview;
about 8 minutes

Story Codes
A: The Researcher;
C: Discovery and Success;
D: The History of Health Care, Patient Care;
C: Patients;
C: Patients, Treatments, Survivors;
D: Fiscal Realities in Healthcare;
D: The Healthcare Industry;
D: Politics and Cancer/Science/Care;
D: Women and Diverse Populations;
D: On Texas and Texans;
B: Beyond the Institution;
B: MD Anderson and Government;

Dr. Elting begins this segment by talking about how the Affordable Care Act has had an impact on the study of health outcomes. She also notes that the ACA has provided an opportunity for her to provide information to the state legislature in Austin and influence the conversation about healthcare. As an example of the issues she might take on, she explains her work on Medicaid has shown that people who have gaps in insurance coverage have worse outcomes than those with continuous coverage. The latter is ultimately more cost effective.

Next Dr. Elting talks about the mechanisms her office uses to deliver information to Austin. She explains that, as a public institution, MD Anderson can only educate, not lobby. A report goes to every legislator. Individuals specifically interested in public health receive an email and those who interact with legislators on behalf of health issues also receive information.

Segment 12
*Training Laboratory and Clinical Researchers in a Populations Perspective*
B: Building the Institution;
about 15 minutes (to end of session)

Story Codes
B: Education;
C: Research, Care, and Education;
B: Beyond the Institution;

In this segment, Dr. Elting talks about Project 4, a training initiative run by Dr. Carlos Barcenos to inform junior faculty about health policy issues and encourage them to integrate a population-focus into their thinking and research. She gives examples of how they encourage this integration and how the training changes the faculty's thinking about resource allocation, the cost of care, and what insurance can and cannot accomplish. Dr. Elting explains that the participants will become leaders in their fields and educators of the next generation of oncologists, so this training is key to shift their practice and contributions to how the healthcare system works.

## Interview Session Three: 26 March 2015

Segment 00C
*Interview Identifier*

Segment 13
*Developing the Ambulatory and Supportive Care Oncology Research Program*
B: Building the Institution;
to about 16:42

Story Codes
A: The Researcher;
A: The Administrator;
C: Patients;
C: Patients, Treatment, Survivors;
C: Discovery and Success;
C: MD Anderson Impact;
C: Leadership;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
C: The Professional at Work;

In this segment, Dr. Elting talks about her roles as Director of Clinical Epidemiology and Informatics within the evolving Ambulatory and Supportive Care Oncology Research Program (1992 – 1998), housed in the Department of General Internal Medicine.

She explains the vision and goals of this new research program, designed to provide data to guide initiatives to de-hospitalize chemotherapy patients to outpatient status and she brought quantitative methods to this clinical department.

Dr. Elting talks about research conducted when a new group of antibiotics became available, making it easier to treat infections and fevers in chemo patients. She explains that the research conducted in the new program shifted the standard of care from inpatient to outpatient treatment. She notes that this was considered "a wild and crazy thing to do," very risky and dangerous.

Dr. Elting talks about how the study offered a leadership opportunity. She reflects on the success of the program.

Segment 14
*Training Clinicians to Think Analytically about Research Problems*
B: Building the Institution;
16:42 – 26:10

Story Codes
A: The Researcher;
A: The Administrator;
A: Overview;
B: Building/Transforming the Institution ;
C: Leadership;
D: Understanding Cancer, the History of Science, Cancer Research;
C: The Professional at Work;
D: On Research and Researchers;

In this segment, Dr. Elting talks about how expanding General Internal Medicine's research program allowed her to train clinicians in analytical thinking. She explains how physician's generally think about clinical problems, defines what analytical and quantitative thinking are, and the effect that training in these methods has on clinicians.

Dr. Elting ends this segment by explaining what she learned from working with clinicians in this way. She notes that her role as Director of Research (1998-1999) in the Section of General Internal Medicine was simply an expansion of her role as Director of Clinical Epidemiology and Informatics.

Segment 15
*Developing Health Services Research in the Division of Cancer Prevention*
B: Building the Institution;
26:10 – 44:50

Story Codes
A: The Researcher;
A: The Administrator;
B: Building/Transforming the Institution ;
B: Multi-disciplinary Approaches;
B: Growth and/or Change;

B: MD Anderson History;

Dr. Elting talks about her role as Chief of the Section of Health Services Research (2001 – 2013) and explains the department affiliation.

She sketches the research focus on the outcomes (including economic and business outcomes) of treatments, not the treatments themselves.

Dr. Elting explains why she was selected to take on this role and how she was asked to head the section and "go find a department to be in and make us famous." She explains why she identified the Department of Biostatistics and Applied Mathematics as the most likely home.

Dr. Elting then sketches this administrative history of the Departments of Biostatistics and Applied Mathematics. She describes the challenges of finding a way to work with other department members whose perspectives were different and notes a landmark moment of finding common ground for collaboration.

Dr. Elting notes that her appointment to the role of Vice Chair of the Institutional Review Board raised the profile of Health Services Research and further credentialed her and her Section.

Segment 16
*Institutional Review Boards at MD Anderson*
B: An Institutional Unit;
41:10 – end of session

Story Codes
B: Institutional Processes;
B: MD Anderson History;
B: Building/Transforming the Institution;
A: The Administrator;
C: Controversies;

Dr. Elting sketching her role in MD Anderson's Institutional Review Boards, including establishing a new IRB when the board overseeing clinical research didn't serve the needs of non-clinical researchers. She talks about the role of the research review committee (PBHSRC) that also looks at protocols.

Next, she sketches a history of IRBs at MD Anderson, first established in 1966, before the federal requirement to establish such review processes. She explains how attempts were made to create effective processes that would not slow research.

Next, Dr. Elting explains the value of IRBs and traces how their role has changed as more resources have been provided to support monitoring.

Dr. Elting explains that the computer system that enables efficient entry and management of data has lagged behind the development of IRB processes and causes problems with the system. She also notes that when HIPPA requirements were set in place without consideration for researchers, they "crippled" the IRB.

## Interview Session Four: 23 April 2015

Segment 00D
*Interview Identifier*

Segment 17
*A Brief History of Office Space Occupied*
A: Personal Background;
about 2 minutes

Story Codes
A: Personal Background;
C: Funny Stories;
B: MD Anderson History;

Dr. Elting begins this funny segment by announcing that she has "done some homework." She goes on to explain that she has had twenty-four different offices at MD Anderson, two of them in buildings that were ultimately imploded. She notes that the fact that she was asked to relocate before the implosion, and jokingly adds that she sees this as proof that the institution values her work.

Segment 18
*A Brief History of Institutional Review Boards at MD Anderson*
B: An Institutional Unit;
About 11 minutes

Story Codes
B: Building/Transforming the Institution;
B: Institutional Processes;
C: Understanding the Institution;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
D: Ethics;

Dr. Elting begins this segment by reviewing the proliferation of IRBs at MD Anderson. She discusses the reasons why they were necessary and how they have emerged as pressures on researchers were changing. She explains why the mid-nineties were a key time for rising resources to fund IRB oversight. She explains that when HIPPA went into effect, MD Anderson's Compliance office became more concerned about adherence to proper policy.

Next Dr. Elting talks about the need for IRB oversight given ethical issues that have arisen with the increase in genetic/genomic research and increases in projects involving 'big data' requiring that personal health information moves from institution to institution.

Segment 19
*Researchers in Relationship to Institutional Review Boards: A Perspective from an IRB Chair*
B: An Institutional Unit;
about 16 min

Story Codes
B: Building/Transforming the Institution;
B: Institutional Processes;
C: Understanding the Institution;
C: The Professional at Work;
A: The Researcher;
D: Ethics;
A: Contributions;
C: Leadership;

In this segment, Dr. Elting responds to the observation that many researchers have an adversarial view of IRBs. She underscores the importance of training in IRB issues and then explains that she was responsible for formalizing MD Anderson's IRB training program for new faculty members and research nurses.

She explains her strategy of addressing IBR mistakes while she served as Chair (Institutional Review Board IV, 2003-2005). She gives examples of the kinds of issues that would arise and explains why they appear, particularly in the social sciences departments.

Dr. Elting notes that the IRB she chaired was formed to handle issues arising from research projects, such as hers, conducted in the community with non-MD Anderson patients. She explains the issues that would arise and gives examples of creative solutions to these unexpected situations.

Segment 20
*Adding Biostatistician to Research Protocols Raises the Bar of MD Anderson Research*
B: Institutional Processes;

Story Codes
B: Institutional Processes;
B: MD Anderson Culture;
C: Research, Care, and Education;

In this segment, Dr. Elting explains how it became a requirement to include a biostatistician to all MD Anderson research protocols. When Dr. Don Berry was recruited to head the Department of Biostatistics, this new requirement was a condition for accepting the position.

Dr, Elting agreed with his requirement and talks about its significance. She explains how important a biostatistician's view can be in designing and protocol as well as interpreting data. (She comments on the design of research conducted by pharmaceutical companies.) She talks about the positive effect on MD Anderson research.

Dr. Elting observes that PIs were at first skeptical, because they didn't know how they would pay for biostatistics services, but Don Berry secured substantial funds from MD Anderson to provide this support free of charge and most people were happy to have the help.

Segment 21

*A View of Women's Careers at MD Anderson*
B: Diversity Issues;
about 22 min

Story Codes
A: Professional Path;
A: Experiences Related to Gender, Race, Ethnicity;
A: Critical Perspectives;
B: Critical Perspectives on MD Anderson;
B: Gender, Race, Ethnicity, Religion;
C: Women and Minorities at Work;
C: Leadership;
C: Mentoring;
C: Obstacles, Challenges;
C: Experiences of Injustice, Bias;

Dr. Elting offers observations and personal experiences to illustrate changes in the climate for women at MD Anderson.

She talks about challenges when she was not accorded respect or opportunities. She notes that she was the fortieth woman at MD Anderson to be promoted to full-professor.

Dr. Elting observes that the executive leadership at MD Anderson expresses concern about women's representation, but this was not repeated at the mid-level of management until Dr. Elizabeth Travis [Oral History Interview] began working on advancement for women. Dr. Elting explains why she was reluctant to align herself with the Women Faculty Organization and Women Faculty Programs. She observes that women have an equal chance at becoming a department chair, but not at rising any higher. She explains why this is the case.

Dr. Elting points out some differences in the ways that men and women look at their subject matter, particularly the way men are quicker think in entrepreneurial ways about their work. She explains how she developed this perspective.

Segment 22
*Cultivating Talented People Willing to Dedicate Themselves to a Research Life*
A: Researcher;

Story Codes
C: Leadership;
C: Mentoring;
C: The Life and Dedication of Clinicians and Researchers;
C: On Texas and Texans;
C: Women and Minorities at Work;

Dr. Elting talks about her mentoring strategy of identifying talented people who can dedicate themselves to the demanding life of a researcher and principle investigator. She talks about the role of senior faculty in weeding out junior faculty who will not be worth a department's investment.

Next, she explains that leadership involves a wide range of skills, including presentation and fund-raising skills and the ability to sell their ideas to for-profit companies.

Dr. Elting observes that too many women accept roles that involve a lot of work, but that do not showcase their skills. She talks about her style of mentoring women for leadership.

Segment 23
*Projects Remaining Before Retirement*
A: View on Career and Accomplishments;
about 15 minutes

Story Codes
A: Career and Accomplishments;
A: Contributions;
B: MD Anderson History;
B: MD Anderson Impact;
B: MD Anderson Culture;
C: Patients, Treatment, Survivors;
C: Personal Reflections, Memories of MD Anderson;
C: MD Anderson Past;
B: Discovery and Success;
C: Patients;
C: Offering Care, Compassion, Help;
C: This is MD Anderson;

Dr. Elting first talks about the writing and research she will focus on in her remaining time at MD Anderson. She notes that she is very proud of her work on the Institutional Review Boards (she was the first woman chair of an IRB) and her early work on treatment outcomes. **(Health Issue raised, no HIPPA authorization needed.)** She says she never realized how much her work on controlling infection effectiveness mattered until her mother was treated for cancer.

Dr. Elting recalls that when she came to MD Anderson nearly everyone died from infection. She notes that it could be a depressing place, but the researchers and support people who stayed helped each other through that time and achieved great things.

Dr. Elting also observes that she was one of the first people at MD Anderson to look at health issues from a population perspective. She is pleased at how far the institution has come in supporting that research.

Segment 24
*Overview of MD Anderson Presidents and the Effects of Rapid Growth*
B: Institutional Change;
about five minutes

Story Codes
A: Critical Perspectives;
C: Portraits;
B: MD Anderson History;
B: Growth and/or Change;

B: The MD Anderson Brand, Reputation;
B: Institutional Mission and Values;
B: MD Anderson Culture;
C: Understanding the Institution;

Dr. Elting begins this segment by sketching the approaches of MD Anderson's presidents. (She worked under all of them.) She observes that R. Lee Clark was primarily focused on patient care. Dr. LeMaistre [Oral History Interview] was an "ambassador president" who worked well with the University of Texas System. Dr. Mendelsohn [Oral History Interview], she says, brought a research perspective and now Dr. Ronald DePinho [Oral History Interview] is moving MD Anderson into new areas of science.

Dr. Elting states that MD Anderson's next challenge is to determine how to function as a research institution and deliver care at the same time. She explains how MD Anderson has "seesawed" between these two poles over time. She observes that the negative press the institution is receiving is a function of the institution growing big very rapidly in an environment of financial complexity. She asks, How big is big enough? She observes that the institution has lost its cohesive feel. She compares MD Anderson with the Dana Farber Institute, which has remained small and focused.

Partial CV – Linda Elting, DrPH

Updated 2015

THE UNIVERSITY OF TEXAS
MD Anderson Cancer Center

# CURRICULUM VITAE
# Linda S Elting, Dr P H

## PRESENT TITLE AND AFFILIATION

### Primary Appointment

Professor, Department of Health Services Research, Division of Cancer Prevention and Population Sciences, The University of Texas MD Anderson Cancer Center, Houston, TX

### Dual/Joint/Adjunct Appointment

Associate Member, The University of Texas Graduate School of Biomedical Sciences, Houston, TX

Professor, Department of Health Disparities Research, Division of Cancer Prevention and Population Sciences, The University of Texas MD Anderson Cancer Center, Houston, TX

## CITIZENSHIP

United States

## OFFICE ADDRESS

The University of Texas MD Anderson Cancer Center
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## EDUCATION

### Degree-Granting Education

Houston Baptist University, Houston, TX, BS, 1974, Nursing

The University of Texas School of Public Health, Houston, TX, MPH, 1981, Disease Control

The University of Texas School of Public Health, Houston, TX, DrPH, 1988, Epidemiology, Biometry, Infectious Diseases

### Postgraduate Training

Disease Control, The University of Texas School of Public Health, Houston, TX, 1/1981-

## CREDENTIALS

### Board Certification

Association of Practitioners in Infection Control - Certified in Infection Control, 1/1986

### Licensures

#### Active

N/A

#### Inactive

Registered Nurse, TX, n/a, 1974

## EXPERIENCE/SERVICE

### Academic Appointments

Coding and Data Collection, Department of Epidemiology, The University of Texas M.D. Anderson Cancer Center, Houston, TX, 1970-1971

Health Educator, Harris County Center for the Retarded, Adult Residential Facility, Houston, TX, 1974-1975

Staff Nurse, Hermann Hospital, Houston, TX, 1975-1976

Research Assistant, Research Nurse Supervisor, Project Coordinator, The University of Texas M. D. Anderson Cancer Center, Houston, TX, 1976-1988

Instructor in Epidemiology and Assistant Epidemiologist, The University of Texas M. D. Anderson Cancer Center, Houston, TX, 1988-1991

Assistant Epidemiologist and Assistant Professor in Epidemiology, The University of Texas M. D. Anderson Cancer Center, Houston, TX, 1991-1998

Associate Epidemiologist and Associate Professor in Epidemiology, The University of Texas M. D. Anderson Cancer Center, Houston, TX, 1998-1999

Associate Professor, Department of Health Services Research, The University of Texas M. D. Anderson Cancer Center, Houston, TX, 1999-2001

Associate Professor, Department of Biostatistics and Applied Mathematics, The University of Texas M. D. Anderson Cancer Center, Houston, TX, 2001-2004

Associate Member, The University of Texas Graduate School of Biomedical Sciences, Houston, TX, 2003-present

Professor, Department of Biostatistics, Division of Quantitative Sciences, The University of Texas MD Anderson Cancer Center, Houston, TX, 2004-2013

Professor, Department of Health Disparities Research, Division of Cancer Prevention and Population Sciences, The University of Texas MD Anderson Cancer Center, Houston, TX, 2004-present

Professor, Department of Health Services Research, Division of Cancer Prevention and Population Sciences, The University of Texas MD Anderson Cancer Center, Houston, TX, 2013-present

**Administrative Appointments/Responsibilities**

Director, Clinical Epidemiology and Informatics, Ambulatory & Supportive Care Oncology Research Program, The University of Texas MD Anderson Cancer Center, Houston, TX, 1/1992-1/1998

Director of Research, Section of General Internal Medicine, The University of Texas MD Anderson Cancer Center, Houston, TX, 1/1998-1/1999

Chief, Section of Health Services Research, Department of Biostatistics & Applied Mathematics, The University of Texas MD Anderson Cancer Center, Houston, TX, 6/2001-present

Vice-Chairman, Institutional Review Board, The University of Texas MD Anderson Cancer Center, Houston, TX, 9/2003-8/2005

Chairman, Institutional Review Board IV, The University of Texas MD Anderson Cancer Center, Houston, TX, 9/2005-1/2014

Vice-Chairman, Institutional Review Board IV, The University of Texas MD Anderson Cancer Center, Houston, TX, 2/2014-present

**Other Appointments/Responsibilities**

Design and Management, Ambulatory Treatment Center and General Internal Medicine Information Systems, Houston, 1/1994-1/1999

Design, Patient Satisfaction Survey for the Ambulatory Treatment Center and General Internal Medicine Clinics, Houston, 1/1997-1/1999

**Endowed Positions**

N/A

**Consultantships**

Endo Pharmaceuticals, Chadds Ford, PA, Advisory Board Steering Committee, 12/2002-8/2003

**Military or Other Governmental Service**

N/A

**Institutional Committee Activities**

Quality of Life Steering Committee, Chairman, 1/1994-1/1995

Health Services Research Working Group, Member, 1/1994-1/1998

Psychosocial, Behavioral and Health Services Research Review Committee, Co-Chairman, 9/1997-1/2001

Surveillance Committee (Institutional Review Board), Member, 9/1997-present

Division of Medicine, Executive Council - Research Sub-Committee, Member, 1/1999-12/1999

Faculty Senate, Member, 1/1999-1/2002

Faculty Senate - Research Affairs Committee, Member, 1/1999-1/2002

Study Section Review Committee for Clinical, Translational and Population-Based Research Projects, Member, 1/1999-1/2002

Employee Satisfaction Steering Committee, Faculty Senate Representative, 1/2000-1/2002

Cancer Prevention Subcommittee for the Faculty Achievement Awards, Member, 1/2001-12/2001

Search Committee, Head, Division of Internal Medicine, Member, 1/2001-1/2002

Economist Faculty Search Committee, Chairman, 1/2001-1/2002

Prostate Outcomes Faculty Search Committee, UT M.D Anderson Cancer Center, Member, 1/2001-1/2002

Center for Research in Minority Health, Internal Advisory Board, Member, 1/2002-present

Search Committee, Department of Health Disparities Research, Member, 1/2003-1/2004

Department of Epidemiology Faculty Search Committee, Member, 1/2003-1/2004

IRB Task force to develop standard operating procedures for members conflicts of interest, Chairman, 8/2003-1/2004

Education Subcommittee for Faculty Achievement Awards, Member, 9/2003-12/2003

Institution Review Board, Vice-Chairman, 9/2003-9/2005

Biostatistics Faculty Search Committee, Member, 1/2004-1/2005

Institutional Review Board 4, Chairman, 9/2005-2014

Institutional Review Board 3, Member, 9/2005-present

Comprehensive Cancer Strategic Plan Steering Committee, Member, 9/2008-present

Data and Prioritization Committee for Comprehensive Cancer Control, Member, 12/2008-present

Institutional Review Board 4, Vice-Chairman, 2014-present

**HONORS AND AWARDS**

Best Proffered Paper Award, Annual Meeting, Multinational Association for Supportive Care in Cancer, 1997

Selected to attend Senior Women in Medicine Professional Development Seminar, Association of American Medical Colleges, 2000

Best Research Presentation, Kelsey Research Foundation Health Services and Outcomes Research Conference, 2001

Best Research Presentation, Texas Public Health Association Annual Meeting, 2003

Best Research Presentation, Texas Public Health Association Annual Meeting, 2005

Outstanding Research Presentation, Texas Public Health Association Annual Meeting, 2006

MASCC Distinguished Achievement Award, Multinational Association of Supportive Care in Cancer, 2011

Senior Fellow, Sealy Center on Aging, The University of Texas Medical Branch, 2011-present

Texas Business Women's Award, Texas Business Women Inc., 2012

Contact the RML for the full CV.

# Linda Elting, DrPH

**Interview Session One: February 19, 2015**

**A note on transcription and the transcript:**

This interview had been transcribed according to oral history best practices to preserve the conversational quality of spoken language (rather than editing it to written standards).

The interview subject has been given the opportunity to review the transcript and make changes: any substantial departures from the audio file are indicated with brackets [ ].

In addition, the Archives may have redacted portions of the transcript and audio file in compliance with HIPAA and/or interview subject requests.

## Chapter 00A
## *Interview Identifier*

***Tacey Ann Rosolowski, PhD***
00:00:00
All right, so we are now recording. And today is February 19th, 2015. The time is about two minutes after two. And I'm Tacey Ann Rosolowski, and today I am on the ninth floor of Pickens Academic Tower in the office of—and I'll make sure I get this right—the Department of Health Services Research. And I'm interviewing the Chief of Section in that department? Is that correct? No. So—

***Linda S. Elting, DrPh***
00:00:26
No. Not since my retirement.

***Tacey Ann Rosolowski, PhD***
00:00:30
Oh my gosh, I didn't know about that. (laughter) Well, I'm interviewing Linda Elting—

***Linda S. Elting, DrPh***
00:00:35
Yes.

***Tacey Ann Rosolowski, PhD***
00:00:35
And so tell me—

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***Linda S. Elting, DrPh***
00:00:38
And I'm a professor in the Department—

***Tacey Ann Rosolowski, PhD***
00:00:40
Okay.

***Linda S. Elting, DrPh***
00:00:41
—of Health Services Research.

***Tacey Ann Rosolowski, PhD***
00:00:41
Okay.

***Linda S. Elting, DrPh***
00:00:42
But I no longer work full-time.

***Tacey Ann Rosolowski, PhD***
00:00:44
Oh, I see. Okay. Well, as you can see, my background research is not totally up to date. (laughter) Well, thank you for that. This project is being conducted for the Making Cancer History Voices Oral History Project run by the Historical Resources Center at MD Anderson Cancer Center in Houston, Texas. And, please correct me along the way. Dr. Elting first came to MD Anderson in 1970 working in Coding and Data Collection in the Department of Epidemiology, is that—so, very long history with the institution. She held a number of positions at MD Anderson and elsewhere, and currently, as you just said, you are part-time with the department. You were Chief of Section in Health Services Research?

***Linda S. Elting, DrPh***
00:01:28
Mm-hmm.

***Tacey Ann Rosolowski, PhD***
00:01:29
And that was from what year to what year, do you recall? I'm sure I—

***Linda S. Elting, DrPh***
00:01:33
I'd have to look at my CV. (laughter)

***Tacey Ann Rosolowski, PhD***
00:01:33
I'll find it on your CV when we talk about that. And if you could tell me, because are you still joint appointment in three departments, or—?

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***Linda S. Elting, DrPh***
00:01:42
Probably on paper I am—

***Tacey Ann Rosolowski, PhD***
00:01:45
Okay.

***Linda S. Elting, DrPh***
00:01:47
But not functionally.

***Tacey Ann Rosolowski, PhD***
00:01:47
Okay.

***Linda S. Elting, DrPh***
00:01:48
And not since my retirement.

***Tacey Ann Rosolowski, PhD***
00:01:51
And those three departments were Biostatistics and Applied Mathematics, let's see, Biostatistics, isn't that [inaudible]?

***Linda S. Elting, DrPh***
00:02:07
Biostatistics was the name of Biostatistics and Applied Mathematics.

***Tacey Ann Rosolowski, PhD***
00:02:08
Until 2003?

***Linda S. Elting, DrPh***
00:02:11
Yes.

***Tacey Ann Rosolowski, PhD***
00:02:11
All right.

***Linda S. Elting, DrPh***
00:02:12
So first it was Biostat Applied Mathematics. Then it became Biostatistics.

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***Tacey Ann Rosolowski, PhD***
00:02:17
I see.

***Linda S. Elting, DrPh***
00:02:20
And I was jointly appointed in Health Disparities Research.

***Tacey Ann Rosolowski, PhD***
00:02:24
Okay, great. Okay. Well, and we'll sort all—because I'm sure that's an interesting history of how those departments—

***Linda S. Elting, DrPh***
00:02:26
Yes.

***Tacey Ann Rosolowski, PhD***
00:02:27
Yes. This session is being held in Dr. Elting's office, and this is the first of a number of planned interview sessions. So thank you for your corrections and for your time this afternoon. (laughter)

***Linda S. Elting, DrPh***
00:02:40
You're welcome.

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Chapter **01**
## *An Early Interest in Writing Serves a Career in Science*
## A: Educational Path;
2:40 – 7:22+

**Story Codes**
A: Personal Background;
A: Professional Path;
A: Influences from People and Life Experiences;
A: Character, Values, Beliefs, Talents;

***Tacey Ann Rosolowski, PhD***
00:02:43
All right, well let's start with the kind of chronological beginning. And if you could tell me where you were born and when?

***Linda S. Elting, DrPh***
00:02:55
I was born in Houston, raised in Houston—

***Tacey Ann Rosolowski, PhD***
00:02:56
Wow.

***Linda S. Elting, DrPh***
00:02:56
Went to school in Houston. The furthest I've ever lived is Friendswood.

***Tacey Ann Rosolowski, PhD***
00:02:58
Wow. (laughs)

***Linda S. Elting, DrPh***
00:03:01
So I'm a Houston girl.

***Tacey Ann Rosolowski, PhD***
00:03:06
And what's your birth date?

***Linda S. Elting, DrPh***
00:03:07
February 10th, 1951.

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***Tacey Ann Rosolowski, PhD***
00:03:08
Happy belated birthday.

***Linda S. Elting, DrPh***
00:03:12
Thank you.

***Tacey Ann Rosolowski, PhD***
00:03:16
And tell me a little bit about your family. Was there anyone else in your family involved in healthcare, sciences, math?

***Linda S. Elting, DrPh***
00:03:26
No, my dad's an attorney. Now my grandfather was a dentist, my mother's father, and she got an interest in anatomy and physiology from him. She's a speech and hearing pathologist, so she was very interested in that field.

***Tacey Ann Rosolowski, PhD***
00:03:49
And tell me your parents' names.

***Linda S. Elting, DrPh***
00:03:50
My dad's name is Sam Sterrett and my mother's name is Sue Warrick Sterrett.

***Tacey Ann Rosolowski, PhD***
00:04:00
Now, tell me a little bit about kind of your educational path, and when you were starting to feel like, oh yeah, I kind of know where my interests lie, and what my gifts are starting to be.

***Linda S. Elting, DrPh***
00:04:13
Well, I reached that several times on different occasions, all with different decisions. (laughter) I went to Lutheran School through eighth grade, loved to write. And in high school, I went to Houston Independent School District, went to Robert E. Lee High School in Houston and graduated from there. I took a fair amount of science, a little bit of math, not a lot, not as much as I needed later on. But mostly, I was interested in literature and writing. My freshman year in college, I went to Lindenwood College in St. Louis, Missouri.

***Tacey Ann Rosolowski, PhD***
00:05:03
Can I interrupt you just for a sec, and ask, what do you think that interest in literature and writing, you know, showed about your skills at that time, and now?

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***Linda S. Elting, DrPh***
00:05:17
At the time, I thought what I wanted to do was write or teach. When I ended up where I ended up along the pathway, it was a skill that I didn't need to remediate. It has allowed me to be a fairly skilled writer from the beginning, as a faculty member. That's a skill a lot of faculty members who are science from the beginning don't have. So it saved me time in the long run. I think it's enabled me to write clearly for the lay public, which is often important for us in getting our message across to people who are not scientists. So I think it's been helpful.

***Tacey Ann Rosolowski, PhD***
00:06:03
Is there something, too, about, you know, I mean, being a writer takes a very special sensitivity to meaning and kind of the nuance of words, the impact.

***Linda S. Elting, DrPh***
00:06:18
Mm-hmm?

***Tacey Ann Rosolowski, PhD***
00:06:21
You know, is there—do you see any kind of similarity between your skill and working with that and other areas of your professional life?

***Linda S. Elting, DrPh***
00:06:26
I do. But I think what I would say is the thing that has helped me the most. And I don't know if it was a skill I developed or a gift, maybe both. But to be a good writer, and to be a good scientist, you have to synthesize information effectively; whether it's numerical information or verbal information. And then you have to put it together to draw a conclusion. And I think those same thought processes work, whether it's numbers or cells or words.

***Tacey Ann Rosolowski, PhD***
00:06:59
Interesting. Yeah. Well, tell me about the next step, I mean, when did you start to think, saying to yourself, wait a minute, teaching, writing may be not where my main center of gravity is.

***Linda S. Elting, DrPh***
00:07:15
Well, I went to college at Lindenwood, and it's a very small school at that point. It's bigger now. But it was a small school, very small classes. And all of my professors were full professors as a freshman, which was very rare then, in classes of twelve and fifteen people. And I took a class as an undergraduate in literature and art history, taught together, and decided that I had to be an art historian. So I thought through that process for a while and recognized that I would have to put together enough money to be able to study overseas. So I came home to go to school at University of Houston, and I enrolled there in art history at night.

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Chapter **02**
## *Inspired by J Freireich and Doing Support Work for MD Anderson Researchers*
## A: Joining MD Anderson/Coming to Texas;

**Story Codes**
A: Personal Background;
A: Professional Path;
A: Inspirations to Practice Science/Medicine;
A: Influences from People and Life Experiences;
B: MD Anderson Culture;
B: MD Anderson History;

***Linda S. Elting, DrPh***
00:07:15]+
And a friend of my father's, who was a pharmacist here at MD Anderson, suggested that I apply here just for a clerical job so I could support myself. And so I was hired as a Clerk Typist I. (laughing)

***Tacey Ann Rosolowski, PhD***
00:08:28
You still remember the grade?

***Linda S. Elting, DrPh***
00:08:31
I do! I do. I had a number of those jobs with number—Roman numerals after them. And I worked in the Tumor Registry. And amazingly enough for someone with zero skills and nothing to bring to the job really, other than, you know, I was smart enough to read, I was sat down at a desk, handed medical records and said, "Read these charts and figure out what kind of cancer they have." And so I learned about diagnoses, I learned a lot about anatomy and physiology that they taught the coders, how to code treatment and things like that. And I was the most junior person. So that meant I got the worst assignments, and what was considered the worst assignment at that point was to go to a hospital unit called 3 West, which was Developmental Therapeutics. It was where chemo was given, that was a new treatment then in 1970. Most patients were treated with radiation or surgery. So I went with my little pen and pencil and my forms to go and review the charts of the patients who were in there.

And one day, I got trapped in the back of the conference room when the whole medical team walked in to have their rounds. And I couldn't get out before they all arrived, so I had to sit through it while they discussed all the cases. And they discussed one after the other, and many were doing—of the patients were not doing well that day. They had had three Code Blues since the early morning; it was a bad day on the leukemia service. And Dr. [Emil J.] Freireich was on service that day. And he recognized, I think, everyone's feeling. And he just stopped the meeting in the middle, and he looked everyone in the eye, and he said, "This has been a bad day. We have a lot of bad days." But he said, "Remember, a new cure could be right around the corner." And he said when he first took vincristine, one of the first chemo drugs from his laboratory to the bedside at the NCI [National Cancer Institute], children who had been bleeding to death from leukemia, who had only a few hours to live, were cured. And he said, "That could happen anytime." And I was a goner at that point. My imagination was captured, and I thought, "Oh, this is very cool, there's this thing right around the corner, so we should all sign up and do this."

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Chapter **03**
## *Finding a Way to Have a Research Career at MD Anderson*
## A: Professional Path;

**Story Codes**
A: Personal Background;
A: Professional Path;
A: Inspirations to Practice Science/Medicine;
A: Experiences Related to Gender, Race, Ethnicity;
A: Influences from People and Life Experiences;
B: Controversy;
B: MD Anderson Culture;
B: MD Anderson History;
C: Mentoring;

***Linda S. Elting, DrPh***
00:08:31]+
So I thought through my options at that point, and was very interested in the kinds of things that we were doing in the Coding Department, and in particular, there were a few physicians who would come to the department to do research. And they would arrive with forms they would fill out, and my job was just to go to Medical Records and get the charts for them; I was just the chart person. And then my other job was to sit next to them and take the chart away when they were finished, it was a highly responsible job. (laughter) But I recognized that they were coming with these forms, and they had all this stuff to fill out, and there was a fair amount of that stuff I could fill out before they arrived. So I started doing that. And they recognized the value of that. So they started teaching me more and more about the stuff they were studying, and about things that I could fill out for them, and pretty soon I was filling out a lot of the form for them, and doing their research. So I came to the conclusion that I wanted to switch from art history to something to do with medicine and research. So I looked at applying to medical school. Looked at—I hadn't finished college yet, but looked at potentially applying for medical school, or doing something else, and recognized I really didn't have the money to ever go to medical school. But you could get very good scholarships to get a degree in nursing. And there was a good baccalaureate program here in Houston, at Houston Baptist [University]. So when I had saved up enough money for that and gotten some scholarship money, I quit my job here and then went to school more or less full time, until I got my nursing degree. So when I graduated, I just wanted to go to work at MD Anderson doing research; that's what I wanted to do.

***Tacey Ann Rosolowski, PhD***
00:13:32
Okay. Interesting.

***Linda S. Elting, DrPh***
00:13:33
So I couldn't get that job immediately. And I took a job temporarily as a health educator at Harris County Center for the Retarded, until I could get a job as a research nurse at MD Anderson.

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***Tacey Ann Rosolowski, PhD***
00:13:54
Now, the year—let's see, you graduated in 1974 with your nursing degree. Now, that was very early years of research nurses.

***Linda S. Elting, DrPh***
00:14:01
Yes.

***Tacey Ann Rosolowski, PhD***
00:13:59
So—

***Linda S. Elting, DrPh***
00:14:03
In fact, there was no such title.

***Tacey Ann Rosolowski, PhD***
00:14:04
Yeah. So how did you understand what you were going to be doing, or tracking into, at that point?

***Linda S. Elting, DrPh***
00:14:12
Oh, I didn't. I was very open-minded, I just wanted to do research. And so, I came to MD Anderson and applied for a job in research. And they said, "Well, we don't have anything for you right now," but eventually they called and said they had a job as a Research Technician III—another one of those things—(laughs) for Dr. [Gerald] Bodey [oral history interview] in infectious diseases. And so, and the job then was basically to do procedures and to assist in collecting data on forms for clinical trials of new antibiotics, and then to do the procedures in the protected environments, the sterile environments, and help to collect the data for that. And at that point, that's what I wanted to do, and I aspired to be a Research Technician IV. (laughs) And I became a Research Technician IV after a while. But—and I enjoyed that. I did a lot of pharmacology studies of new antibiotics. We put in some of the first long lines, central lines, that nurses put in. But we didn't have the title "Nurse," we were called "Technicians." We did bone marrow aspirations and biopsies, some superficial skin biopsies and then a lot of data collection. So—

***Tacey Ann Rosolowski, PhD***
00:15:48
Were there—along the way, did you have people that you felt were particularly—worked as mentors for you? I mean, obviously, Dr. Freireich was a real inspiration at that one particular moment.

***Linda S. Elting, DrPh***
00:16:00
Mm-hmm.

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***Tacey Ann Rosolowski, PhD***
00:16:01
Were there people that were starting to help you think about how your career was unfolding?

***Linda S. Elting, DrPh***
00:16:09
I learned a lot of medicine from the fellows who were assigned to the studies that I worked with. And we would work together on the same charts. And so—and the fellows I worked with, the junior fellows I worked with were Mike [Michael] Keating and Gabe [Gabriel] Hortobagyi, and people like that who are big names in the institution these days. But they were doing their fellowships then. And I learned a lot from them. I wouldn't say I had mentors; you know, mentors are kind of new. What I would say is that because it was a really sort of non-structured environment, there were lots of times when you could just sort of step in and seize an opportunity, because it was something new, and there really wasn't any plan for how it ought to come off.

00:17:22
So I got interested in aggregating data, and actually putting it all together one time when Dr. Bodey was gone off to Russia, and the people, a sponsor of a company was coming to look at preliminary data from a study, and there was no one to put it together. And I looked at his desk, and there was a big, enormous green sheet of paper with rows and columns, and I could see kind of what he did, so I just did some more of it, added to it. And I got a real interest in looking at things not at the individual patient level, but in aggregating the information. And so, when he came back, there it all was, and I said, "Well, you weren't here, and they were scheduled to be here. So here it is, if we need to correct it then we'll do that, and I'll send it off." And after that, he started handing it to me to do. And so because it was sort of a new area with lots of new people doing it, there weren't a lot of rules and regulations about what kind of person ought to do which job, so when something was interesting or needed to get done, there were opportunities to step in and do it.

***Tacey Ann Rosolowski, PhD***
00:18:40
I mean, I don't know if you felt this way at the time, or even maybe in retrospect, but as I'm hearing you tell the story, I'm thinking, wow, that was also a great opportunity for a woman, too—

***Linda S. Elting, DrPh***
00:18:49
Yes.

***Tacey Ann Rosolowski, PhD***
00:18:52
—to have that openness.

***Linda S. Elting, DrPh***
00:18:52
Mm-hmm.

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***Tacey Ann Rosolowski, PhD***
00:18:52
Do you agree with that, looking back?

***Linda S. Elting, DrPh***
00:18:54
Yeah, at that point there was so much work to be done, and so few people to do it that when people stepped up and did stuff, that was always good. I don't ever recall at that point hearing, "Well, nurses don't do that," or, "Women don't do that," it was, "Okay, cool, you can do that? That means I can do this over here." So I think that was a good environment. It's environments like that don't have structured mentoring, it's easy to get lost in a system like that. There are all kinds of bad things about it, too. But for someone who's willing to do some work and take some risks, there were a lot of opportunities to step in and do stuff.

***Tacey Ann Rosolowski, PhD***
00:19:50
Now, what about that risk-taking opportunity? I mean, was it taking risks for you?

***Linda S. Elting, DrPh***
00:19:51
Oh, yeah.

***Tacey Ann Rosolowski, PhD***
00:19:53
Or was it just doing what—it was?

***Linda S. Elting, DrPh***
00:19:54
Yeah, it was considered by some to be presumptuous for someone who is not a physician to step in and take over doing something that had been done in the past by physicians. And in fact, there was a feeling among the nurses in the institution that the sort of thing that we did as research nurses was not appropriate work for nurses. They didn't do bone marrow aspirations and biopsies, or those kinds of procedures. Those were done by fellows, by physicians. And so at that point, there was a real—a divide, you know, between the nurses on the floors and the nurses who did research kind of work. And it took a number of years before we were allowed to call ourselves nurses.

***Tacey Ann Rosolowski, PhD***
00:20:49
Interesting. Hmm. Where do you think you got the ability to step up and take those risks, you know?

***Linda S. Elting, DrPh***
00:21:07
I guess from the time I was little, my parents always told me I could do anything in the world; all I had to do was work hard, and I believed them. I think their statement was—it was a little bit of an overstatement; (laughs) there are a fair number of things I can't do at all. But I was still a believer back then. So it didn't seem odd at all that someone with no math background should an analysis of a study. (laughter)

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***Tacey Ann Rosolowski, PhD***
00:21:37
And do it successfully.

***Linda S. Elting, DrPh***
00:21:38
Yes. And have no problem doing it. So—

***Tacey Ann Rosolowski, PhD***
00:21:40
Yeah, very interesting. Well, I'm sure just taking on a challenge like that, doing it successfully, gives you the confidence to say, "Well, sure, I'm going to stretch my wings even more."

***Linda S. Elting, DrPh***
00:21:50
Yeah, yeah. It was an exciting time. People did a lot of cool stuff, and a lot of it seemed really successful. So there weren't a lot of negative things going in our little world in chemotherapy, you know, there was so much progress, big steps being made, that it was easy to jump on that bandwagon.

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Chapter **04**
## *Earning a Master's in Public Health and a Landmark Study of Infections*
## A: The Researcher;

Story Codes
C: Discovery and Success;
A: Overview;
A: Definitions, Explanations, Translations;
A: The Researcher;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
C: Evolution of Career;
C: Professional Practice;
C: The Professional at Work;

***Tacey Ann Rosolowski, PhD***
00:22:17
Now, tell me about the next kind of change, because then you went for your master's in public health.

***Linda S. Elting, DrPh***
00:22:23
Yeah.

***Tacey Ann Rosolowski, PhD***
00:22:23
What about that decision?

***Linda S. Elting, DrPh***
00:22:29
Well, I got to a place where I was—Dr. Bodey's organization grew, and instead of doing just the clinical trials of antibiotics and working with infections, he was in charge of all the chemotherapy. And so I ended up with a bunch of research nurses working for me, coordinating those studies. So I was mostly just training new people, doing the analyses, and it became clear to me that while I could step in and do stuff, there was an awful lot I didn't know; particularly about statistics. So I just made the decision to get a master's degree. And I went to the School of Public Health, because it was a very—it was also a new organization, just sort of getting started here in the Medical Center and at UT [University of Texas]. And it was also very unstructured, just like where I was working. And you could walk into that school at that point and say, look, this is what I want to be doing when I walk out of here. Here are the skills I already have, these are the ones I know I need. That's where I want to focus. And somebody would say to you, "Okay, I'll be your advisor and you can do that, but I think you need to learn this too and have this exposure. But you're going to do it pass-fail, so it's not a huge risk to take this weird class that you don't feel prepared for."

And so that was a really good experience for me. You know, I walked into classes and most of the students there had no clue what they wanted to be when they grew up, so they were just sort of floundering in that open environment, but it's great for me, you know, because I could tell every professor when I walked in the door, "I already know these things, but I don't know anything about this. You need to help me learn this. This is where I want to focus." And so it was a very good experience for me.

***Tacey Ann Rosolowski, PhD***
00:24:32
What did you do your thesis on? What was your research?

***Linda S. Elting, DrPh***
00:24:36
I was still working at Dr. Bodey at that point, and I was very interested in infections caused by multiple organisms, because they were very deadly for patients in our hospital. When I first went to work at MD Anderson, most people with cancer died from infection. So we were developing antibiotics, and the worst of the worst infections were the ones caused by multiple organisms. And it had been decades since anyone actually did a study to describe the epidemiology of those problems; what are the most common ones, what antibiotics usually work? And if you think you have somebody who has this problem, what should you start with first? And so I did a large study on polymicrobial septicemias or bacteremias. I think it's still the largest one ever published—

***Tacey Ann Rosolowski, PhD***
00:25:27
Really?

***Linda S. Elting, DrPh***
00:25:31
—even these many years after that. So that's what I did my thesis in.

***Tacey Ann Rosolowski, PhD***
00:25:39
And what were some of the big—I mean, obviously you learned new skillset areas. Were there some ways in which your own perspectives on data management-data analysis changed, and you started getting a philosophy about running epidemiological research?

***Linda S. Elting, DrPh***
00:25:59
I guess a couple of things; the first thing that really was impressed on me as I studied epidemiology and the classic studies that have been done over time and things like that is that you have to take a population perspective. But everybody I worked with on a daily basis, being a clinician, took a perspective that was strongly influenced by the last individual they saw. And consequently, many of the sweeping statements that were made and some of the hypotheses they came up with occurred as a result of failing to take a population perspective. And so I felt that, particularly as I began doing some of my first research and preparing myself to do those things that what I could really add to a department full of clinicians who looked at—take this individual perspective is the skills and the view of the whole population. And so that was probably one of the two most important things I learned.

The other thing I learned is that, and it became more and more obvious to me, the things that we failed to do well at MD Anderson when we were doing studies, and that was that in doing our clinical trials and other projects, we failed to clearly specify the question. And consequently, we wasted some resources collecting data we didn't need to collect, and often we couldn't answer the most important question because we didn't do a good enough job at the beginning of specifying the question. And so, my mantra as a member of the department became, "What's the question," every time somebody would sit down in my office, "I want to do this study." "What's the question? Let's get the question right, and then where's the data to support it?" You know, "Are we really going in a direction that is going to be relevant, or are we just going in a direction that is influenced by the last patient you saw, who is a train wreck, but those train wrecks are very rare." So I think that perspective was really, really helpful to me. The other thing that I learned there from studying the classic epidemiologic studies is the value of seeing the whole picture as a picture, and not numbers. And when I started working with using that idea with the clinicians I worked with, it's amazing the difference it made. You know, instead of showing them a table with numbers, I showed them a graph. That's so much more accessible than a bunch of numbers and P-values that we started getting through preliminary results and various things very fast, because I learned how to graph things properly and how to picture them instead of just write them in tables and numbers.

***Tacey Ann Rosolowski, PhD***
00:29:16
I was going to ask you a kind of related question, because you were talking about that difference in perspective between the public health epidemiological mentality and the clinical mentality; that just seemed like a gap that was made for miscommunication.

***Linda S. Elting, DrPh***
00:29:30
Mm-hmm. (laughter)

***Tacey Ann Rosolowski, PhD***
00:29:35
And so I was going to ask you, well, how did that all happen? Are there some other areas where you've seen emerge where there's kind of a communication gap between a biostatistician and a clinician, I mean a gap that needs to be overcome with effective communication strategies?

***Linda S. Elting, DrPh***
00:29:57
I guess because I have worked with some of the best statisticians in the world, and they're very knowledgeable about medicine, the gaps are not so obvious, or so influential. I have never felt that it was effective, even to show really expert people only numbers and only significance levels, because it's just a different way to think. And I have always thought that the way to bridge that is with pictures. That is in graphs, and that's how most statisticians work these days, I think.

***Tacey Ann Rosolowski, PhD***
00:30:48
Is with more visualization.

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***Linda S. Elting, DrPh***
00:30:48
Mm-hmm. Mm-hmm.

***Tacey Ann Rosolowski, PhD***
00:30:49
Yeah. I'm blanking on the guy who does the beautiful data—the *Beautiful Data* books, but I'll think of it.

***Linda S. Elting, DrPh***
00:30:54
Ed [Edward] Tufte.

***Tacey Ann Rosolowski, PhD***
00:30:57
That's—Ed Tufte. That's right. (laughter)

***Linda S. Elting, DrPh***
00:31:01
I have his books right up there.

***Tacey Ann Rosolowski, PhD***
00:31:03
There you go! (laughter) Yeah, I've admired his communications styles—

***Linda S. Elting, DrPh***
00:31:09
Yeah.

***Tacey Ann Rosolowski, PhD***
00:31:09
—very much, too, sure. Yeah, how to inspire with information, not basically put people to sleep.

***Linda S. Elting, DrPh***
00:31:16
Yeah. Yeah. Or, have people miss it. You know, I was involved in some studies with a colleague from a different university for a while, and he would show survival curves to patients and families. And what he discovered was that people never looked at the end of the curve. They looked at the difference between the lines right on the left side of the graph. So if you had a treatment that was really good initially, but actually worse at the end, patients and their families didn't pick up on that. And if you took it to the extreme, no treatment usually is best at the very beginning because there's no toxicity and no deaths. And then you might have something that actually cures people, but it didn't. The patients missed it.

***Tacey Ann Rosolowski, PhD***
00:32:08
They didn't see that either?

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***Linda S. Elting, DrPh***
00:32:10
All the stuff off at the right hand side of the graph was missed. So that really impressed on me how innumerate our society is.

***Tacey Ann Rosolowski, PhD***
00:32:15
Yeah.

***Linda S. Elting, DrPh***
00:32:17
How bad we are at synthesizing data in our heads. Because when I look at those graphs, the first thing I look at is the far right hand corner at the overall survival of the two groups. And no matter how close they are here, down here at ten years, if one's better, that's what I want. But people missed that entirely.

***Tacey Ann Rosolowski, PhD***
00:32:38
Yeah. But that's almost like you already know that that's where the punchline of a data story is.

***Linda S. Elting, DrPh***
00:32:40
Sure. Yeah. That's where it is for me.

***Tacey Ann Rosolowski, PhD***
00:32:40
Yeah.

***Linda S. Elting, DrPh***
00:32:43
And they looked at that the next year.

***Tacey Ann Rosolowski, PhD***
00:32:44
Yeah.

***Linda S. Elting, DrPh***
00:32:44
And no treatment was better than a curative treatment, in some cases, so—

***Tacey Ann Rosolowski, PhD***
00:32:49
Hmm.

***Linda S. Elting, DrPh***
00:32:52
Visualizing that is an important way to do it.

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Chapter **05**
## *A Doctorate in Public Health and Appointment to the Faculty*
## A: Professional Path;

Story Codes
A: Professional Path;
B: MD Anderson Culture;
B: Institutional Processes;

***Tacey Ann Rosolowski, PhD***
00:32:56
Yeah. Well, what happened after you got your master's? What then? What turn did your career take here at MD Anderson?

***Linda S. Elting, DrPh***
00:33:10
I liked the work that I was doing. But I came to the conclusion that my research questions were better (laughs) than the questions—and more interesting than the research questions of the people around me. And I recognized that I was not going to be able to address my own research questions unless I was a member of the faculty. So I resolved to pursue doctoral work in order to gain additional skills, but also to have the credentials that I needed to build a program to address my own questions.

***Tacey Ann Rosolowski, PhD***
00:33:56
Did you ever consider going anywhere else?

***Linda S. Elting, DrPh***
00:34:01
Any—a different number—

***Tacey Ann Rosolowski, PhD***
00:34:02
Any other institution?

***Linda S. Elting, DrPh***
00:34:03
Oh, other than MD Anderson?

***Tacey Ann Rosolowski, PhD***
00:34:04
Yeah.

***Linda S. Elting, DrPh***
00:34:04
Oh, no.

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***Tacey Ann Rosolowski, PhD***
00:34:05
Why?

***Linda S. Elting, DrPh***
00:34:09
Because it's the best place. (laughter) Despite all the bad press, it still is. I mean, there is no place else as big with as many patients with as many resources. And my experience has been that even if you do stuff, as I often have, that's far outside the mainstream of research in the institution, there's always an opportunity to do it. There's nobody who shuts you down and says, "Oh, that shouldn't be done here." You know? So it's not easy, but it is possible to do all kinds of stuff at a place this big, partly because of money and partly because of the number of patients, and that sort of thing.

***Tacey Ann Rosolowski, PhD***
00:35:02
So tell me about that next step. So you're committed to staying here.

***Linda S. Elting, DrPh***
00:35:05
Yeah.

***Tacey Ann Rosolowski, PhD***
00:35:07
So you go for your PhD. Tell me about that.

***Linda S. Elting, DrPh***
00:35:11
Yeah. Well, it was five years out of my life that I don't even remember, to tell you the truth! (laughter) I worked full time and I went to school, and I had teenage kids, and it was horrific. But I got a lot of math skills, statistical skills that I had not had previously. That was a big plus for me. I honed computer skills. That was a really big plus for me, because the late '80s, and early '80s, we weren't using computers much at MD Anderson in everyday research. The Statistics Department did, but just the everyday use, people weren't doing that, so getting a computer and starting to put all of this into easily-searchable information that meant we could reuse the data from clinical trials for other things. That was a big step for our department and a big step for me in learning how to manage databases and design them, so you could ask future questions, and those sorts of things. So I got some very good skills, but more importantly I got the piece of paper that I needed. (laughter)

***Tacey Ann Rosolowski, PhD***
00:36:36
And just for the record, that was a PhD in epidemiology?

***Linda S. Elting, DrPh***
00:36:37
No, it's a Doctor of Public Health.

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***Tacey Ann Rosolowski, PhD***
00:36:41
Doctor of Public Health.

***Linda S. Elting, DrPh***
00:36:43
Yeah, DrPH.

***Tacey Ann Rosolowski, PhD***
00:36:44
Oh, okay.

***Linda S. Elting, DrPh***
00:36:44
Yeah.

***Tacey Ann Rosolowski, PhD***
00:36:45
Okay, great.

***Linda S. Elting, DrPh***
00:36:47
And my focus was in epidemiology.

***Tacey Ann Rosolowski, PhD***
00:36:48
Okay.

***Linda S. Elting, DrPh***
00:36:50
And my minors were statistics and infectious diseases.

***Tacey Ann Rosolowski, PhD***
00:36:53
And that was, again, through the UT School of Public Health?

***Linda S. Elting, DrPh***
00:36:56
Yeah.

***Tacey Ann Rosolowski, PhD***
00:36:57
Okay. So, and your degree was conferred in ‘88. And that was also the year that you had a big change in status, and so you became—

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***Linda S. Elting, DrPh***
00:37:06
Yeah. Yeah.

***Tacey Ann Rosolowski, PhD***
00:37:11
Tell me about that next step.

***Linda S. Elting, DrPh***
00:37:11
So, I asked Dr. Bodey to appoint me to the faculty. And he finally agreed. (laughter)

***Tacey Ann Rosolowski, PhD***
Now, what was the hold-up, or do you think—

***Linda S. Elting, DrPh***
00:37:26
Well, he didn't think anyone would say yes.

***Tacey Ann Rosolowski, PhD***
00:37:30
Oh.

***Linda S. Elting, DrPh***
00:37:29
He said, "Well, nurses can't be on the faculty." And I said, "Well, I'm not a nurse anymore, now I have this doctoral degree." And so, but he says, "You're not my nurse anymore?" (laughs) I said, "I'll still be your nurse if you'll appoint me!" But he did not expect for that to be approved.

***Tacey Ann Rosolowski, PhD***
00:37:51
Okay.

***Linda S. Elting, DrPh***
00:37:53
And they approved it. I'm not sure why; it wasn't something that was done.

***Tacey Ann Rosolowski, PhD***
00:38:03
And again, it was because you had a nurse status, or—

***Linda S. Elting, DrPh***
00:38:03
Well, it wasn't just that. I was a classified employee.

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***Tacey Ann Rosolowski, PhD***
00:38:07
Oh, I see.

***Linda S. Elting, DrPh***
00:38:08
Classified employees don't get promoted to faculty, ever. I don't know if they do now, either. You know? And I was—he felt strongly that I would not be able to succeed as a faculty member because all the rest of the faculty knew me as a nurse. And he felt strongly if I wanted to succeed as a faculty member, I needed to go elsewhere, and that was a very reasonable thing, except that this is the best place to be. So I told him I would take that risk, and it wasn't his problem if it didn't happen. But I wanted to try to make it work. And he was right, it was hard to get physicians who had known me for a decade as a research nurse to give me a chance to prove that I was credible as a faculty member, and as a peer. It took a while. But it wasn't impossible. And there were lots of people who were very open-minded about it, you know, who agreed to work with me from the very beginning. So it's a big enough faculty that you can usually find another reasonable human (laughter) for every project.

***Tacey Ann Rosolowski, PhD***
00:39:29
Lots of doors to knock on.

***Linda S. Elting, DrPh***
00:39:34
That's right.

***Tacey Ann Rosolowski, PhD***
00:39:34
Now, so in '88, so you were an instructor, an Assistant Epidemiologist, from 1988 to 1991.

***Linda S. Elting, DrPh***
00:39:42
About that, yeah.

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Chapter **06**
## *Early Research Studies*
## A: The Researcher;

**Story Codes**
A: The Researcher;
C: Discovery and Success;
B: MD Anderson Culture;
B: Devices, Drugs, Procedures;

***Tacey Ann Rosolowski, PhD***
00:39:46
About that, okay. And so what were you doing during that period?

***Linda S. Elting, DrPh***
00:39:54
I was doing all that I had been doing previously, running the program in the department, and managing the research nurses, and additionally, doing my own research and trying to get a grant and become independent, and that sort of thing.

***Tacey Ann Rosolowski, PhD***
00:40:11
What was the research that you were focusing on?

***Linda S. Elting, DrPh***
00:40:14
Most of the research that I was producing was epidemiology of infections, as the research I was doing as a first author. I did a case control study and some work on two emerging new kinds of infections that got some press, and were highly regarded.

***Tacey Ann Rosolowski, PhD***
00:40:40
What were those?

***Linda S. Elting, DrPh***
00:40:41
There was one, at that point we considered alpha streptococcal infections as mostly contaminants, but we started seeing patients who seemed to have a real infection from them, and we were losing patients from what appeared to be a variation of toxic shock syndrome. And so I did an epidemiologic investigation in the hospital of all the cases, and was one of the first to publish on that as a new clinical entity. So that was a milestone for me to get a high-profile paper.

***Tacey Ann Rosolowski, PhD***
00:41:23
What—now, you said that you had this belief coming out of your doctoral program that you asked better questions.

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***Linda S. Elting, DrPh***
00:41:28
Yeah.

***Tacey Ann Rosolowski, PhD***
00:41:28
So how was your question better, leading to this important high-profile study?

***Linda S. Elting, DrPh***
00:41:36
So everything that had been reported so far on that and the plan for reporting from MD Anderson was that somebody in infectious diseases who had seen five cases was going to write a paper about them. So I got Dr. Bodey to agree that I could do it instead, and so I got all of the cases at MD Anderson, went to where they were, we looked at all of their risk factors, and by having the whole population, not just five cases, we could draw conclusions about the risk factors. And we could put together a very good clinical picture of how the problem presented, so you could identify it early and give treatment early. With the other one I looked at, what was then called *pseudomonas maltophilia*, and has changed names about four times since then, but somebody was going to write a report, a case report about, gee, we saw this weird infection in two patients. But by getting all the cases, and going there and actually culturing the environment and culturing the sinks in various places, we found an index case, we found the risk factors and we found the reason that it was—how it was transmitted, and how we could do a better job of preventing it in the future, or identifying it early.

***Tacey Ann Rosolowski, PhD***
00:43:07
I think when I interviewed Dr. Bodey, he talked to me about that study.

***Linda S. Elting, DrPh***
00:43:09
Yeah. (laughs)

***Tacey Ann Rosolowski, PhD***
00:43:11
I remember pseudomonas and I remember him describing the sampling—

***Linda S. Elting, DrPh***
00:43:12
Uh-huh. Yeah.

***Tacey Ann Rosolowski, PhD***
00:43:13
—of all of these different areas. Yeah. How interesting.

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***Linda S. Elting, DrPh***
00:43:20
Yeah. So that was the research I was producing, and I was producing that on his dollar. He was paying my salary and he would, you know, pay for any stuff that I needed. But I needed a grant. So my first grant was from the Higher Education Coordinating Council to look at how to visualize clinical trial data. And so I had put clinical trial data into a database, but we were hav—our problem was, we were doing a lot of work on brand new anti-fungal agents. And some of them were pretty toxic, but we would never know about it until the end of the study, because we'd have one patient here, and one patient on another floor, and another patient over here. And then there'd be a month and nobody—nobody saw all those patients.

00:44:11
So there wasn't anybody who was putting it together on a daily basis. So I designed a database system to have all of that clinical trial information just dump into there automatically, which allowed us to make reports on a weekly basis of new toxicities as they came up. So the project was to look at response and toxicity from the system, which was called "Bugman," (laughs) and the pictures were little pictures of bugs. And they were red if they were gram negative and blue if they were gram positive, and they had an X across them if they died, and they had pictures of toxicities around them. And I did a randomized trial of handing a clinician, who was supposed to be monitoring the study, a table of results, or a picture of bugs. And we timed them, and we determined how they best got the data quickly and efficiently, and understood it. And the pictures were the best. And it was a grant. So once you have one grant, then you can get more. But it's that first one that's so hard to get. And it gave me a little bit of money and a little bit of breathing room on my salary so that I could start moving forward.

***Tacey Ann Rosolowski, PhD***
00:45:40
Now, what was the impact of that study? I mean, did it change how communications happened here at MD Anderson?

***Linda S. Elting, DrPh***
00:45:43
It's like a lot of things. It was like a whole lot of things that you do. It was implemented at a whole lot of other places. (laughs)

***Tacey Ann Rosolowski, PhD***
00:45:54
You're never a hero in your own land!

***Linda S. Elting, DrPh***
00:45:57
No. And in reality, MD Anderson's computer systems are still not such that they could accommodate such a thing. You know, we've always been behind the curve in the electronic medical records business, and in the clinical trial record business. So we're still behind the curve, it's not used here. But it was implemented at a lot of places around the country, and got some notice here and there at some meetings.

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Chapter07
## *Research Focus Expands to Risks and Outcomes of Care;*
## A: The Researcher;

**Story Codes**
A: The Researcher;
A: Professional Path;
C: Mentoring;
C: Discovery and Success;

***Tacey Ann Rosolowski, PhD***
00:46:27
So how did your research evolve next? Because there are a number of areas, different areas—

***Linda S. Elting, DrPh***
00:46:36
Yeah.

***Tacey Ann Rosolowski, PhD***
00:46:38
—that you've done research in.

***Linda S. Elting, DrPh***
00:46:40
Yeah. So I decided I wanted to do something in addition to infections, because to be honest, we were having fewer of them; we did a good job in developing new antibiotics. And because the chemotherapy regimens were more effective, we were having fewer and fewer deaths from infections. But the chemo regimens that were being developed were really toxic in terms of nausea and vomiting and some other problems, and so I wanted to expand to some other supportive care areas. So I transferred to the Department of General Internal Medicine. They managed the Ambulatory Treatment Center, where all the chemo was given. And there was an opportunity to work there, to be more independent. Many people told me I needed to get out of infectious diseases, because what I did was assumed to be Dr. Bodey's work by many people on the outside, and that I needed to get out and be independent of him, because I had worked with him for, I don't know, seventeen years, or something. And we were considered a unit. (laughs)

***Tacey Ann Rosolowski, PhD***
00:47:55
Right.

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***Linda S. Elting, DrPh***
00:47:55
So that, plus the need to branch out a bit and do some other things, I moved to General Internal Medicine and started working on nausea and vomiting and some other things, and at that point got very interested in effectiveness and efficiency in care and in cost, because we had some really cheap anti-nausea medicines that worked Okay, but the expensive ones were more effective, and they didn't leave you with a patient who was sound asleep in the clinic bed all day long taking up the bed when someone else could have used it.

***Tacey Ann Rosolowski, PhD***
00:48:37
Mm-hmm.

***Linda S. Elting, DrPh***
00:48:37
So we started doing some studies of—time and motion studies, how to effectively treat patients and get them home, how to do things on an outpatient basis, and how to look at the cost of treatment. There were insurers who were balking at paying for the expensive new drugs, but they were so much better than the old ones, that they were so much better for the patients and their families and everything else. So we started working a lot to look at not just the efficacy, but the value of the treatment. So that really captured my imagination. I started studying economic some to begin to look at those sorts of things.

***Tacey Ann Rosolowski, PhD***
00:49:32
So I'm getting the impression that when you need to know something, you just kind of say, "Okay, fine, I'll go learn that."

***Linda S. Elting, DrPh***
00:49:36
Yeah. Actually when I was doing my doctoral work, because the place was really—the school was really open, and I didn't have a set number of courses, it was hard to tell how close I was to being finished. And I can remember going in and sitting down with my advisor one day when I was supposed to be signing up for classes and telling him that I didn't really want to go to any more classes because they slowed me down, I learned faster alone, it was a waste of time to go to a lot of the classes, and how much more did he want me to do? He said, "Well, if that's the case, you're finished." (laughs) He says, "If you can learn faster on your own than you learn here, then you're ready to be graduated."

***Tacey Ann Rosolowski, PhD***
00:50:18
Oh, that's very cool!

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***Linda S. Elting, DrPh***
00:50:20
He says, "It's time for you to do your dissertation." He says, "Let me know when you're ready." "Okay." (laughter) And that's my mark now for when students are ready to finish. You know, if they can learn what they need to learn to do the research that interests them, they're ready to be finished and go do it. Getting money is not the mark of independence. Being able to frame a good question is the mark of independence, and know how to get the answers. Once you can do that, the money will fall into place. Somehow. Most times. (laughter)

***Tacey Ann Rosolowski, PhD***
00:51:12
That's the laugh of a person who recognizes realities.

***Linda S. Elting, DrPh***
00:51:15
Oh, yeah. Not all times, but sometimes. In those situations, it's good to have lots of questions.

***Tacey Ann Rosolowski, PhD***
00:51:20
Yes. Yes.

***Linda S. Elting, DrPh***
00:51:21
Some of them will pan out.

***Tacey Ann Rosolowski, PhD***
00:51:24
Some of them will pan out, yes. Well, we have about five minutes left, until 3:00.

***Linda S. Elting, DrPh***
00:51:28
Mm-hmm.

***Tacey Ann Rosolowski, PhD***
00:51:30
Would you—I'd like it if you would take me through maybe one of those studies that you worked on in General Internal Medicine, whichever one you feel kind of had the most impact, either in its sort of significance of data or for yourself in terms of advancing your own research. Or, is there a better question for me to ask?

***Linda S. Elting, DrPh***
00:51:53
Well, I guess a really big one for me when I was in General Internal Medicine was a study that I designed and initiated to look at the frequency and the outcomes in cost of thrombocytopenia, which is low platelets. And there were a lot of new drugs that were being developed at that point to increase the platelet count. There was a hope that that would be really effective. But we knew they would be very expensive drugs. But nobody had any idea how much it really cost to have low platelets, how frequent

bleeding was, how often it was that you couldn't just give a transfusion and have it work. And that was, I guess, the first really big study I did as a principal investigator separate from Dr. Bodey; it wasn't in his area. And I got—was fortunate enough to get a drug company interested in it, so they funded the whole thing.

And I was very blessed as a junior person that I was that Bob Benjamin [Robert Benjamin, MD; oral history interview], who was a very senior member of the faculty, agreed to work with me on that, even though he had known me for many years as a research nurse. He agreed to work with me on that, which gained credibility for my project with other departments around, and they agreed to participate. And so that brought in enough money for me to hire somebody to help with the work, I didn't have to do it all myself. And it gave me an in with a company, and I learned how to deal with sponsors myself as a principal investigator. I had the opportunity, because it ended up being the only study that had been done on that topic, I ended up testifying before an FDA [Food and Drug Administration] committee for the—when they were considering licensing some of these drugs and approving them. And that was another—you know, a high-profile thing to do that established me as in the field. It gave me an in at some organizations, professional organizations, because it was an area that was attributed to me, that it was my thing. It wasn't more work, or more independent than work I had done when I was in Dr. Bodey's department. But it was viewed differently from outside. And so that was a really important project for me. It gave me the money I needed to hang on for a while, and it allowed me to establish my independence and my own reputation, which was important.

00:54:59
So I think I would name that—there were some other things that may have been more scientifically important, but that put me on the map as the person who does the risk and outcomes and cost studies in supportive care. And from there, I went on to studies in oral mucositis and diarrhea and all kinds of different things. That one study kind of meant, I'm not just infections, you know? I do these other things, and it sort of emphasized to everybody that it was not the infection part that I did, it was the risk and outcomes in that other piece. And that gave me a really good kick-start to do that, and bought me enough time to get an ACS grant approved in febrile neutropenia. So then I was in pretty good shape.

***Tacey Ann Rosolowski, PhD***
00:55:59
Well, we're almost out of time, so why don't we leave it there for today?

***Linda S. Elting, DrPh***
00:56:03
Okay.

***Tacey Ann Rosolowski, PhD***
00:56:04
That's a good, like, closing off the chapter, you know?

***Linda S. Elting, DrPh***
00:56:07
(laughing) Okay.

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Interview Date: February 19, 2015

***Tacey Ann Rosolowski, PhD***
00:56:10
With promise of things to come.

***Linda S. Elting, DrPh***
00:56:11
Okay.

***Tacey Ann Rosolowski, PhD***
00:56:12
So thank you very much for your time today, Dr. Elting.

***Linda S. Elting, DrPh***
00:56:13
Sure. My pleasure.

***Tacey Ann Rosolowski, PhD***
00:56:15
And I am turning off the recorder at about two minutes of three.

***Linda S. Elting, DrPh***
00:56:19
Okay.

# Linda Elting, DrPH

**Interview Session Two: March 5, 2015**

## Chapter 00B
## *Interview Identifier*

***Tacey Ann Rosolowski, PhD***
00:00:00
[laughs] All right, okay, so we're officially recording now. And I am in the office of Health Services Research, interviewing Linda S. Elting, DrPH. This is our second session together, and today is March 5th, 2015. And we were strategizing a little bit before we turned on the recorder, and also admired the dancing giraffes—

***Linda S. Elting, DrPh***
00:00:27
Giraffes—

***Tacey Ann Rosolowski, PhD***
00:00:28
—who have yet to dance.

***Linda S. Elting, DrPh***
00:00:28
—yes. [laughter] Hey, stay tuned.

Interview Session: 02
Interview Date: March 5, 2015

Chapter **08**
## *A Study of Thrombosis Opens New Research Niche in Side Effects*
## A: The Researcher;

Story Codes
A: The Researcher;
A: Professional Path;
C: Discovery and Success;
C: Discovery, Creativity and Innovation;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
B: MD Anderson Culture;
C: Patients;
C: Patients, Treatments, Survivors;

***Tacey Ann Rosolowski, PhD***
00:00:32
Stay tuned. [laughter] That's good. And we decided today to spend time talking about your research. And last time we ended up talking about the study—the first study that you did independently, really, of Dr. Gerald Bodey, which was your study of thrombocytopenia. And so, I wanted you to continue the story of the evolution of your research, because it certainly moved into a whole variety of different areas of policy and population.

***Linda S. Elting, DrPh***
00:01:02
Okay. The thrombocytopenia study led to another similar study on thrombosis. So, in one case, we were worried about people not having enough platelets. And in the other, we were worried about them having too many platelets, and developing clots. They were similar studies to what I had done in the past, and that is, they were about individual patients at MD Anderson. And it—the contribution was—to the literature and to the field was to describe the side effects in a really, really large population. Because MD Anderson is so large in terms of the people it cares for, we're able to put together a large population of people treated in a short period of time. And so, it provides information about the outcomes of these side effects, and the serious nature of these side effects, in a relatively small time period, so it's relevant to current practice when it gets published.

And that was—the thrombocytopenia and the thrombosis studies were sort of my beginning to look at other side-effect problems. I had moved to general internal medicine from infectious diseases, and so I was seeing a wider range of problems there.

***Tacey Ann Rosolowski, PhD***
00:02:28
Could I ask a question?

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***Linda S. Elting, DrPh***
00:02:28
Mm-hmm.

***Tacey Ann Rosolowski, PhD***
00:02:30
Now, it sounds like, from our conversation last time, too, that you were really involved in putting together these very large studies—kind of landmark studies—investigating—putting together data from populations in ways that had never been done before. Why hadn't it been done before?

***Linda S. Elting, DrPh***
00:02:50
Well, some people had done it. It was not uncommon at all for new fellows to come to MD Anderson to do their clinical year as fellows, and then to do a year of research, and as one of their projects, to do a retrospective chart review of some clinical problem. And it was also extremely common for those fellows to see an interesting case of something, and then to publish that. Because part of their research experience is to publish and to aggregate data and those sorts of things. I think what I did was take what had been done by many fellows and ramp up the methods. I worked really hard to be able to put denominators on things.

***Tacey Ann Rosolowski, PhD***
00:03:52
What does that mean?

***Linda S. Elting, DrPh***
00:03:53
Instead of just saying, "We had fifty-seven cases of this," I added into that, "and there were 123 people at risk, and so, this is a common problem." When you don't have that denominator, you don't really know how big the problem is, particularly if you're reporting from MD Anderson, which is different from everyplace else on earth.

So I think that that attention to the methodologic issues—the focus on the epidemiology of the problem as opposed to the clinical aspects of the problem—took that kind of research to a new level. And it allowed me to do some very good descriptions of toxicities and side effects. At that point, virtually all the information we had about toxicity and side effects of treatment of cancer came from randomized clinical trials of treatments. And the problem with those studies it that those are highly selective patients. They're very compliant. They start out pretty healthy compared to other cancer patients. They're the cream of the crop in terms of cancer patients. And so, we didn't have a very good feel for how serious or severe these toxicities were in all comers who needed our treatments. And so, looking at that—looking—comparing trends over time with different drugs outside of clinical trials, getting large experience with the elderly, who are almost never on clinical trials, and those kinds of things really expanded our knowledge about what the—some of the patient burden associated with our treatments is.

So, as I did that, I think two things happened kind of, in my mind, around the same time. The first was that the biggest question I got from reviewers, from colleagues all over the world and everything, well—was, "Well, but you're from MD Anderson. MD Anderson is not like anyplace else. Do you have any idea if these things are as a bad or as frequent or worse in just everyday clinical practice everyplace else, where all the rest of us work?" So there was this question about the generalizability of MD Anderson's patient information.

***Tacey Ann Rosolowski, PhD***
00:06:38
Can I—can I ask you why—I mean, when these colleagues and reviewers said MD Anderson is unique, I mean, what kinds of factors were they referring to? What was the gap between MD Anderson and sort of the more ordinary practice environment?

***Linda S. Elting, DrPh***
00:06:54
Well, MD Anderson is a referral institution. So, we get the—the largest part of our population has always been people that no one else would treat because they had something that was quite rare, or they had something that was quite advanced. It's also a place with some profile in the community, so it's a place where some people want to be treated. That means the people who manage to get themselves here were very motivated; they're educated; those sorts of things. So there are all kinds of things. They're—they tend to be younger than the population with cancer, in general. They're a little bit healthier. They don't have as much diabetes and hypertension and those sorts of problems, because you have to have a certain amount of good health to enable you to travel here and to have the stamina to keep up with treatments that are away from your home.

So, we understand that. We know that's true. We recognize that we see a biased sample that is worse off for their cancer, but better off for everything else. So, the ability to take our patient information and apply it in everyday practice in the community has been questioned, and we understand that. That's a perfectly reasonable and—question to ask. And so, because of that, I started trying to explore opportunities to examine similar problems, but in the general population. And so, that's when I began to expand to looking at these toxicities, using large databases.

***Tacey Ann Rosolowski, PhD***
00:08:43
And what—about what year was that? Kind of what time period?

***Linda S. Elting, DrPh***
00:08:47
Maybe late '90s, early 2000s.

Interview Session: 02
Interview Date: March 5, 2015

Chapter **09**
## *Departing from Epidemiology and Conducting Cost-Effectiveness Studies*
## A: The Researcher;

**Story Codes**
A: The Researcher;
A: Professional Path;
C: Discovery and Success;
C: Discovery, Creativity and Innovation;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
B: MD Anderson Culture;
C: Patients;
C: Patients, Treatments, Survivors;
D: Fiscal Realities in Healthcare;
D: The Healthcare Industry;

***Linda S. Elting, DrPh***
**00:08:47**
At the same time that was happening, in my mind, in the community there had been a lot of research published outside of cancer and inside of cancer about the relationship between surgical outcomes and how many procedures are done every year at certain hospitals. And if you go to have a pancreatectomy for cancer of the pancreas at a hospital that's done one in the last three years, your outcomes are not so good as those that do one a month.

And so, because of that and the publicity it got, hospit—well, legislatures all over the United States were requiring of the hospitals licensed in their state that they report their quality results—their results, to the state. And they addressed questions like volume of procedures per year, and death in the hospital, and those kinds of things. Those kinds of data were made available to researchers. Beginning right about—around that time period, in the early—about 2000, these started to appear.

And so, that was a very good opportunity for me to look at the kinds of toxicities that were causing deaths across Texas or across the United States. And so, my interests sort of moved to the population at about the same time population kinds of data became available. It's like measuring something with a pretty blunt tool, because it's claims. It's not medical records. But it does give you some notion about what's going on. And the cool thing is that it includes the—what's charged and in some cases what was paid in the databases. And so, it—as I began to do that, I would just begin to look, you know, at those kinds of issues.

The other thing that I became really aware of in general internal medicine was that, when I looked across the broad spectrum of toxicities, was that there was a huge amount of development at that point in new drugs for toxicities: antibiotics, particularly anti- nausea medicines, all kinds of things like that. And they were really successful. They worked great. But they were expensive. And because of the cost of cancer care in general, we were getting pushback from the—from payers about paying for what we considered the best care. And so, it got me really interested in why they were making those decisions, because I was looking at the same time of how costly those toxicities were, not just to the patients but also to the insurance company, in terms of extra days in the hospital and extra hospitalizations.

And so, I started looking and it—no one had really studied that, at all. So there really—what we—what seemed real obvious to all of us who sat in the clinic and saw people coming back into the emergency room and into the hospital because they were nauseated and throwing up, wasn't really making it onto the radar screen of payers. And so, I sort of went on this crusade to describe not only the outcomes and the frequency of these problems, but the cost, you know? And not just the cost when it occurred in an individual, but the cost if you averaged that cost across every single person who got the treatment, what—how much was it incrementally increasing the total cost of care for a provider and a payer?

So, those were two kind of big things for me, at that point. And it really—it took me in a—in a different and really productive direction. Before I was doing what I thought was superior epidemiologic studies. But the vast majority of researchers in the field who were clinicians felt like were already addressing the epidemiology of problems, even though I was big into denominators, [laughs] they were also studying these things. But it set me apart from the clinical turf a little bit, and it allowed me to really sort of differentiate myself from that whole huge bunch of clinicians who were doing similar research, but not identical. And I think that was really critical in my success. It was a natural progression for me, academically. But it was also just good luck, because it kind of set me apart, gave me an identity of my own that was real separate from physicians. And it was one that they don't like thinking about, too. [laughs] You know, that—they don't want to prescribe what medicine is cheapest. They want to prescribe what medicine they know is best, and they don't even worry about those dollar things for the most part, if they can avoid it.

So, it was—it was a fortuitous development. I'd love to say I planned it that way, but [laughs] it just sort of fell out that way. I didn't—in retrospect, I recognize that. But at the time, I wasn't attempting to differentiate myself. I was just trying to answer interesting questions that seemed like nobody else was answering.

***Tacey Ann Rosolowski, PhD***
00:14:54
What was it that intrigued you about the money dimension? You know, was—

***Linda S. Elting, DrPh***
00:14:58
Well, it was the patients. I mean, I would walk through the clinic, and at that point I was doing a lot of interaction with patients. And I would walk up and I would say, "How are you feeling today?" And they would say, "Oh, I'm so nauseated." And I said, "You know, we have drugs for that." "Yeah, but my insurance company won't pay." And, you know, at the same time, we were—we were in the ambulatory treatment center where all the chemo is given, and we didn't have enough beds.

And, for example, in the case of nausea and vomiting, the most common and probably the most feared side effect of chemotherapy by anyone who ever gets chemo. And when people couldn't use the new drugs that are very effective, we had to give them the—an alternative that made them really sleepy. And they were in our bed three or four times as long. And we couldn't move them out safely and send them home. And so, we could on—we couldn't treat as many people, and we were always backed up in the clinic. And, you know, we were running till 12:00 or 12:00 at night because people were sound asleep in the bed from their nausea medicine.

And so, from—you know, just from the efficiency standpoint in moving people efficiently through the clinic; from the patient standpoint, because they were miserable from being nauseated. We had patients who wanted to come from work and get their chemo and go back, and they couldn't because they were sound asleep, or because they were too nauseated. And they couldn't drive themselves home, so their spouse had to take off from work. So, those sorts of issues—and so, when we had a drug [cell-phone ringtone] that worked, and we—let me just silence this. This can't be an emergency.

***Tacey Ann Rosolowski, PhD***
00:16:57
It's nice that you know that. [laughter]

***Linda S. Elting, DrPh***
00:17:02
So, we couldn't get people to pay for the drugs, and it was costing us more money. It was costing our patients. It made no sense to anybody for anyone to do it this way. And it was just the absence of information, in my view, because any drug that is, you know, four times better at controlling a side effect, and gets people in and out quickly, and doesn't have long-term downstream events like coming back to the emergency room, has to be cost effective if anybody'll just bother to look at it properly. You know, it just—it's logical.

So that's really what got me into that whole area. And we did some studies that were just simple cost-effectiveness studies of commonly used treatments. We did some that were big claims-database things that just elucidated how frequently people have to be readmitted to the hospital with these side effects if they're not well-controlled at the beginning And they were very, very, very effective with payers. You know, the payers aren't bad people. They're not jerks who are trying to deliver cheap, bad care. They're trying to deliver good care as cost-efficiently as they can with the available money. And when you show them that this is no more expensive to get this drug than it is for the alternative that isn't as good, they always opt for the best drug.

So, that was a—it was a big step for me. It was a very different way to look at things. You know, I had to teach myself a fair amount of economics and that sort of thing. But it was—it was a real eye-opener for me, and it was very—it was very successful for my career, to move in that direction at that time.

***Tacey Ann Rosolowski, PhD***
00:19:20
What—how were your colleagues reacting to this shift in focus?

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***Linda S. Elting, DrPh***
00:19:26
Initially, there were an awful lot of people—an awful lot of clinicians who would say, "I really don't want to hear about it. I don't want to think about money. It's hard enough to do the clinical job I have already." And I would explain why I was doing it, and they said, "Oh, that's fine. Somebody ought to do it." There were some people who said, "You know, you're a very good epidemiologist. It's a shame you're wasting yourself on these cost studies." But it didn't take more than a couple years before the impact of cost and economics was so enormous on everybody's practice that I started getting all kinds of calls from all kinds of people who would say, "Can you please figure out this, so that we can go on and do this?" You know, "Can you tell us whether this is gonna be cost-effective, or how we can frame this and deliver it so that it will be reimbursable?" Because that was the hu—in 2000 and after, that's been the huge issue. You know, not just how do we—how should we treat our patients, but how can we get people to let us treat them, who are payers? So it wasn't very long before that all caught up with every person in the hospital, and every person in the medical community.

Interview Session: 02
Interview Date: March 5, 2015

Chapter **10**
## *Research on Health Effects of Policy Decisions and a Study of Childhood ALL*
## A: The Researcher;

**Story Codes**
A: The Researcher;
C: Discovery and Success;
C: Discovery, Creativity and Innovation;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
C: Patients;
C: Patients, Treatments, Survivors;
D: Fiscal Realities in Healthcare;
D: The Healthcare Industry;
D: Politics and Cancer/Science/Care;
D: Women and Diverse Populations;
D: On Texas and Texans;
B: Beyond the Institution;
B: MD Anderson and Government;

***Tacey Ann Rosolowski, PhD***
00:20:55
So what was the next direction that you took?

***Linda S. Elting, DrPh***
00:20:59
I guess the next direction I took—and I consider myself still in that phase. I started like—you know, the—there's one thing that's really interesting about our country that I'm not sure everyday people recognize. And that is that, in spite of the number of organizations and people who tell us what our health policy should be or our public-health policy, there really is no health policy in the United States. It's managed by so many different factors, both public and private. The decision-makers are everywhere. And there is no one, other than occasionally Congress or Medicare, who specifies, "This shall be done for everyone." There are—there are very few of those specifications. And so, it became really clear—that's very different, for example, from the United Kingdom or from Canada or other places with a national health service, where there are national health policies and you can say, "Okay, this works better than this," and it can actually have an impact on a whole country, or big numbers of people. The United States—that's not the case. And so, even Medicare—Medicare doesn't decide what's covered. Lots of people don't know that.

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***Tacey Ann Rosolowski, PhD***
00:22:29
No, I didn't.

***Linda S. Elting, DrPh***
00:22:30
There are people—there are for-profit companies called fiscal intermediaries that dole out Medicare money, and they're all over the country. There's one for Texas. There's a separate one for other states. And they decide what they're gonna cover with very few exceptions. And so, you may be able to get one thing covered in—by Medicare in Texas, but not in California, and vice versa. So, I got very interested in how those kinds of decisions made it sort of "semi-macro levels," like state levels, local levels, and that have an impact on care in a community, in a pop—subpopulation.

But it—but it's completely different if you go across the state border. So, Medicaid is administered at the state level. A state decides what it's gonna pay for, and whom it's going to insure. And those—that varies around the whole United States. Medicare fiscal intermediaries vary, although not as much as Medicaid, in what they'll approve. What—the public-health budgets for states vary a lot in how much money they set aside. In Texas, we have—we have property taxes, and in large municipalities those property taxes go into county health departments and city health departments. In places that don't have property taxes, they have city budgets or state budgets that are paying for large hospitals.

And so, people who have chronic illnesses, like cancer, that cost a boatload of money, are the people who either benefit or suffer the most from these differences from one municipality to another. And that got me really interested in how, at that policy level, we allocate resources for cancer care. So the—I did some studies on volume and outcome, as I described before, on surgery, that were specific to the state of Texas. And we looked at—not only at outcomes, which everybody who had studied that had done in the past—to see if you do only a few per year, then do you have worse? But also, we looked at, well, what would happen if we told the people that—who normally go to these little hospitals, "Go to this other hospital, which is a high-volume provider." How far will they have to travel to do that? And, at the same time, if they take these very profitable big procedures and move them out of the little hospitals, will we h—will we have any surgical capacity left in the small places if somebody has a car accident on Saturday night and needs a surgeon to operate on them to save their life, if the surgeons don't have a steady income from profitable procedures like cancer procedures, they go and move to Fort Worth or Houston or Dallas or San Antonio. What's gonna happen if you're in Luling, Texas, and you have—and you need a surgeon?

Those sorts of pluses and minuses of approaching things from a policy level are really fascinating to me. And so, I started doing some projects like that, and then started looking additionally to the allocation of resources, for example, like I did a study on mammography in Texas. And we looked at, you know, there are 254 counties in Texas. With a very blunt tool, we

just said how many of them have a mammogram machine? And it was only half. [laughs] And in—and so—and people have studied that before, but we would look—we looked at the outcomes. So, in women who are diagnosed with breast cancer in those counties, are they likely to have early-stage disease or late? And the answer was late. I mean, there was a real outcome that you could associate, at least biologically plausibly, with the notion that there was inadequate screening facilities.

So, we're—currently, I'm working with a pediatric surgeon. We're doing the same thing looking at pediatric cancer facilities. It's a rare cancer. Most children are treated in the hospital. So it's a risky kind of treatment, but in most children—particularly those in—children with leukemia, most of them are curable if you treat them well, you don't kill them with the treatment, and you do a good job of follow-up. And so, we're now looking, in Texas, at where the children are who get cancer, and we're looking at how far they travel to be treated; how far to the ho—nearest high-volume children's cancer provider is; and how—whether or not there are racial and ethnic disparities in who gets to the high-volume providers. So—

***Tacey Ann Rosolowski, PhD***
00:28:17
So what is the cancer that you're looking at?

***Linda S. Elting, DrPh***
00:28:19
Well, currently we're looking at acute leukemia in children—ALL [acute lympocytic leukemia]—lymphocytic leukemia. That's the most common cancer in children. And we're looking at it because eighty percent are cured, or can be cured. So it makes a whole lot of sense, if you had a pot of money, to invest it in children who will have a long, healthy life because they'll be cured, in getting them to a high-volume provider.

***Tacey Ann Rosolowski, PhD***
00:28:48
Who is your colleague on this project?

***Linda S. Elting, DrPh***
00:28:51
I'm working with a fellow of our CERCIT [Comparative Effectiveness Research on Cancer in Texas]—a junior faculty member who's a pediatric surgeon named Mary Austin. And she came to our—CERCIT is a—it's a grant that we hold with UTMB [University of Texas Medical Branch] and Rice [University]. And in the renewal, we hope to add in UT [University of Texas] Southwestern. And w ha—as a part of that, it's funded by CPRIT, the Cancer Prevention and Research Institute of Texas. And we—as part of that, we—they gave us the money to link the Texas Cancer Registry data over a ten-year period to Texas Medicare and Texas Medicaid. So we have all the cases, and then we have them linked to their Medicare and Medicaid claims, and to some other datasets as well, but primarily to the claims.

And so, part of that grant is a training program for junior faculty members at the participating institutions. And Mary Austin a junior faculty member in pediatric surgery here. So, she has an interest in—she's working at the School of Public Health on her certificate in disparities, and has a background in public health. And so, she has a real interest in the ability of children to travel to get the care they need. And we can say a lot, because about—between seventy-five and eighty percent of children with cancer are Medicaid beneficiaries. Nobody can afford the care for those kids. And so, virtually everybody, you know, gets Medicaid for their—as their primary, and they have backup insurance as well. So, we have a good population to draw from.

***Tacey Ann Rosolowski, PhD***
00:30:56
And how many years has that study been in progress?

***Linda S. Elting, DrPh***
00:31:00
We got the grant in 2010. We, just this month, started our fifth year, so we're busily planning our renewal application, which will go in after this year, probab—we expect it to be probably going in next fall. We think that's when the call will be for the RFA [request for application].

***Tacey Ann Rosolowski, PhD***
00:31:23
And what do you think the impact will be of this study—the information that you're gathering?

***Linda S. Elting, DrPh***
00:31:28
Well, to tell you the truth, we've had a lot of impact that I never anticipated. We teamed up with a group at UTMB that has a network of primary care providers throughout the state. And we do video talks and educational sessions that are distributed to all of those places in order to talk about—one of our projects is about screening. And so, all of that screening information is then done by video out to all the—these primary care practices. We have one group that's paid in our grant to disseminate information to the public. And it's all done via editorials in newspapers. And so, we have a group that's writing editorials full-time. UN, the most recent one that I was working on—some of it is just taking our papers that we publish, translating it into normal human talk, and putting it out in a press release. But the editorial usually have a theme and a purpose, like all—every year in May, Mary Austin and I write one on screening for melanoma in children because it's Sunscreen Awareness Month in May. And when it's Colonoscopy Awareness Month, we put out all of these editorials that go out to newspapers across Texas with the information from Texas, and information about screening: who should get it, who shouldn't, how often. You know, where can I—where can you go, and that sort of thing?

So, we've done that. We've done a l—we've done some major reports. So, we did a major report on cancer in Hispanics in Texas that was circulated widely to providers, but also to all members of the legislature, because they make decisions about money that goes to the Hispan—for treatment of the Hispanic community. Went throughout the UT system. So, we worked hard to use mechanis—unusual—less usual mechanisms to get information out to people other than other academic researchers. So, it has provided probably the first good picture of cancer in Texas. And it's a—it's an interesting state to study. There is such a database for the US [United States] as a whole. Texas is not represented in it. We have a lot of Hispanics. Unlike many places in the US, we have a lot of rural Hispanics in Texas. And we have a lot of African Americans, but they live almost exclusively in cities. And that's very different from the rest of the South, where you have Hispanics in cities and African Americans in the rural areas. And because distance from providers can be really important in those groups, and particularly because they have high rates of insurance, it allows us to compare the effect of those problems in Texas to other state. And where you can tease out, then, how much of this is because you're far away from a center, and how much of it is because you don't have insurance, and how much of it is for other reasons? So, it's a—it's an interesting dataset to be able to study.

***Tacey Ann Rosolowski, PhD***
00:35:36
What's your hope for this—the long-term hope? And you'll get—hopefully get this renewed for another five years. What's the long-term vision, really?

***Linda S. Elting, DrPh***
00:35:45
Our initial vision was to provide a picture of cancer care in Texas. I think our next renewal—our renewal will be to provide a roadmap for progress. We've done a lot, in the first five years; to identify gaps; to find problems, to find situations where there is no problem. [laughs] All of these areas are places—and when you put it together in a picture that's the whole state, it allows you to have a pretty persuasive discussion with the legislature about where to put money and where to save money. So, I think that's—we're still sort of noodling about what our renewal needs to look like. But I'm—I think that's where we're gonna go, in some form or another. And I think what we're—we will probably do is add new—a new focus in—probably much more focus in children, because we did mostly adults in the first five years. I expect that we will have at least some component that involves contacting patients across the state and asking them how they're doing, and about their satisfaction with care, and getting real patient outcomes from them. And I think we will probably begin to look far more carefully at expenditure of funds, where it's been effective, and where it hasn't been—where we need to do better.

Interview Session: 02
Interview Date: March 5, 2015

Chapter **11**
## *Providing Data to Inform Policy Makers*
## A: Overview;

**Story Codes**
A: The Researcher;
C: Discovery and Success;
D: The History of Health Care, Patient Care;
C: Patients;
C: Patients, Treatments, Survivors;
D: Fiscal Realities in Healthcare;
D: The Healthcare Industry;
D: Politics and Cancer/Science/Care;
D: Women and Diverse Populations;
D: On Texas and Texans;
B: Beyond the Institution;
B: MD Anderson and Government;

***Tacey Ann Rosolowski, PhD***
00:37:50
To what extent are some of your pl—are your plans influenced by the Affordable Care Act—the ongoing discussion about the economic environment for providing healthcare?

***Linda S. Elting, DrPh***
00:38:08
If you look at it just sort of from 40,000 feet, the plans that are provided by the Affordable Care Act are just another bunch of plans that get added to the long list of plans that we already have, and that we already know are very different from one person and one plan to the next and, you know, that sort of thing. So it has some impact methodologically on how well we can aggregate data. We have to be really careful about coming up with an average cost because, I mean, what's the average cost? MD Anderson—no provider, including MD Anderson, has an average cost of anything. They negotiate the cost of everything with each individual provider, or payer.

So, it adds some methodologic issues. It provides us an opportunity to try and inform the conversation and the decision-making process. My current projects are all focused on Medicaid. I am trying really hard to get this information sent in the direction of Austin. [laughs] They're making decisions often in the absence of information: not because they're stupid or don't look, but because the information doesn't exist. We're trying to produce the kind of information that can inform decision-making, particularly for me, right now, in Austin, about expansion of Medicaid. The current work I'm doing on my own in Medicaid, in this stu—in this project shows clearly that people who have gaps in their coverage, or people who only get covered when they get cancer, have much poorer outcomes.

And so, we're actually wasting the money that we spend on Medicaid, because they have terrible outcomes. You know, the people who are diagnosed at an early stage are the people who are continuously covered for months and years before they get cancer, because they're being managed appropriately and screened. And the people who don't get covered until the—three days after they know they have cancer all have end-stage disease. Now, I don't think we should deny care to those people, but our care is not going to result in a cure. You know, and those monies don't cure cancer, whereas, you know, with breast cancer, you can cure that disease if it's an early stage. It makes no sense to put your money in the basket of end-stage disease in that setting. It makes more sense to move it to the front and get people covered continuously.

But because Medicaid—you have to qualify for Medicaid every six months. You have to reapply. I mean, you can imagine, knowing yourself, what it's like to try and get insurance coverage. Medicaid beneficiaries do it every six months. And just imagine what it would be like to try to attempt that if you don't speak English, or if you have no car to go to the office, or if you're so sick from treatment that you can hardly hold your head up. So, gaps in Medicare cover—Medicaid coverage, and failure to be covered so you can be screened, are causing us to spend money on Medicaid that could be better spent, and have better outcomes.

***Tacey Ann Rosolowski, PhD***
00:41:56
What is the mechanism that you're foreseeing, for getting this information to the legislature in Austin?

***Linda S. Elting, DrPh***
00:42:04
Well, I guess you could say we use, sort of, three methods. The first one is that when we put out a big report, we send it to every legislator, to their office. It goes to them. So, when we put out a report like that, or a press release, we send it to them, to their offices, so some member of their staff will see it. There are some people who are—who are very involved and interested in public health and in the health of the state. Those legislators we target specifically for, you know, an email or something like that. And then, we get these kinds of information out to people who often speak with the—with legislators. You know, we try to get every—so we send it to the ACS [American Cancer Society] representative in Austin. We make sure they hear it. We send it to the Komen folks. You know, all of those people—to the Armstrong Foundation people if it applies there, to survivorship. We try to get the people who lobby on board. You know, we don't lobby. We're state employees. [laughs] But we try to inform their lobbying. We try to inform the decision-making with the kind of information that we produce.

***Tacey Ann Rosolowski, PhD***
00:43:37
It sounds like a really exciting project.

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***Linda S. Elting, DrPh***
00:43:41
It's really cool. Not many people around MD Anderson do this. [laughs]

***Tacey Ann Rosolowski, PhD***
00:43:48
Yeah, yeah.

***Linda S. Elting, DrPh***
00:43:52
They mostly do genes—

***Tacey Ann Rosolowski, PhD***
00:43:53
Right.

***Linda S. Elting, DrPh***
00:43:54
—and cells.

***Tacey Ann Rosolowski, PhD***
00:43:55
Right. Yeah, and—but this is so important to, you know, have an impact on a community and which is obviously—was part of MD Anderson's mission from the very beginning.

***Linda S. Elting, DrPh***
00:44:08
Yeah, yeah, it is.

***Tacey Ann Rosolowski, PhD***
00:44:10
Yeah, yeah. We have about five minutes left in our time today. It—would you like to start talking about another type of study you've been doing, or do you have some related observations to these issues, about community and health and policy?

***Linda S. Elting, DrPh***
00:44:32
No, I don't—I don't think I have—I think we've gone over my research really well.

Interview Session: 02
Interview Date: March 5, 2015

Chapter **12**
***Training Laboratory and Clinical Researchers in a Populations Perspective***
**B: Building the Institution;**

Story Codes
B: Education;
C: Research, Care, and Education;
B: Beyond the Institution;

***Tacey Ann Rosolowski, PhD***
00:44:38
Okay, okay. Work with Carlos Barcenos—have we talked about that? You haven't mentioned his name, so—

***Linda S. Elting, DrPh***
00:44:50
He did some—he was a fellow in this research—this CERCIT project. Project 4—I lead Project 4 on the CERCIT project, and that is about supportive care.

***Tacey Ann Rosolowski, PhD***
00:45:06
Oh, okay.

***Linda S. Elting, DrPh***
00:45:07
He had an interest in supportive care of breast cancer patients, and so, although I was not his director mentor—Sharon Giordano is his—was his mentor in the program, he was interested in supportive care. And so, he did some studies on that, and he—like many others of the junior faculty members—may not make this area his primary research interest for the rest of his career, but I'm impressed at how much understanding they gain from doing—just going through the motions of doing a single study—how much better understanding they have of reading this kind of research, and of what the policy implications of their own work are.

When we initially started the training program, I was concerned that we were—at UTMB, the people they get seem to me to be people who want to focus on this as their research area full-time, whereas the people we were getting at MD Anderson were clinicians. And they're doing—at the same time, they're doing clinical trials, you know, or they're doing laboratory work. And it was not clear to me that those different groups were gonna benefit equally. But I have to say that despite my initial misgivings about the lab guys coming in [laughs] and doing these population-based studies, it's amazing how well they have integrated these concepts into their own thinking, you know?

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***Tacey Ann Rosolowski, PhD***
00:47:06
How—what's the way in which you see that impact?

***Linda S. Elting, DrPh***
00:47:11]
A lot of ways. And it could be that when they speak to me they immediately know what they ought to talk to me about. [laughs] But I hear them saying things like—I don't hear them say anymore, "This is what we do at MD Anderson. This is how we do it." I hear them say things like, "We would like to do this in all our patients at MD Anderson. There are important considerations that cause us not to be able to do this, and one of them is being unable to get reimbursement. Another one is having somebody fifty miles away or 500 miles away, and they can't get here very often. And they're so far, and we need to deal with that distance issue. Or we can't do this, and we're concerned about doing this specific treatment because they're so far away, and they don't have the facilities in the—close by to manage it."

And so, they think in terms of allocation of resources and things like that. I've had fellows say to me, "After I have done this, I'm thinking that I want to keep everybody on my studies limited to people who are within a fifty-mile radius, because I've seen how few and far between the emergency facilities are in this part of the state." You know, s—and they've learned some geography. [laughs]

***Tacey Ann Rosolowski, PhD***
00:48:40
Yeah.

***Linda S. Elting, DrPh***
00:48:41
Lots of them aren't from Texas. So, I've seen that. I've seen people be very aware—become more aware of the cost of care, and of how in—what insurance does and what it doesn't do. I think that a lot of our fellows believed—and junior faculty believed that everybody who was too poor to afford insurance could get Medicaid if they would just apply. I don't think they had any idea of how many people are excluded. I don't think they had a good understanding of how few people are covered under Medicaid. And I've had people listen to that lecture that I give to them about who gets it and who doesn't, and they've said, "You mean to tell me if I lose my job and I get cancer I can't get Medicaid?" I say, "That's correct. You're able-bodied, male, under the age of 65. Unless you are declared disabled, there's no Medicaid for you." They say, "But where will I be treated." [laughs] I said, "Well, you're lucky. You live in Harris County. You'll get treated at the Harris County Hospital district. If you don't live in Harris County, you may be out of luck."

Interview Session: 02
Interview Date: March 5, 2015

***Tacey Ann Rosolowski, PhD***
00:50:09
Yeah. What do you think the long-term effects of these changes in perspective are gonna be? I mean, it's like you're educating—you know, it's one of these, you know, pebble-in-a-pool kind of things. It's—

***Linda S. Elting, DrPh***
00:50:23
Yeah.

***Tacey Ann Rosolowski, PhD***
00:50:23
—gonna ripple out. What do you think the ripple effect will be from this training in these individuals?

***Linda S. Elting, DrPh***
00:50:28
Well, you know, when we do this at MD Anderson, the people that are going through this training program will be the leaders in the field in the future. And perhaps even more importantly, they are the educators of the next generation of oncologists. And, you know, I've heard—I've had junior faculty fellows say to me, "You know, I had never read the most recent version of the guideline for nausea. And I've changed the way I treat patients because of a study they did with me. And I'm teaching my fellows to do that, too." So, I think that know—understanding how the healthcare system works is an important part of being a physician. It's just that nobody ever educates you about it. You have to get bits and pieces of it, and it's kind of trial and error in trying to get your patients cared for. And particularly in institutions like MD Anderson, where so many of the details are handled by departments that are not managed by you, if you're a physician, it's important to understand those bits and pieces.

***Tacey Ann Rosolowski, PhD***
00:51:41
Well, thank you very much. Really, it was really interesting.

***Linda S. Elting, DrPh***
00:51:42
Sure. [laughs

***Tacey Ann Rosolowski, PhD***
00:51:43
Yeah, no, I mean, it was a really great—

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Interview Date: March 5, 2015

***Linda S. Elting, DrPh***
00:51:45
My pleasure.

***Tacey Ann Rosolowski, PhD***
00:51:45
—perspective. And it's three o'clock, so I don't want to—

***Linda S. Elting, DrPh***
00:51:48
Okay.

***Tacey Ann Rosolowski, PhD***
00:51:49
—abuse your time today. And so, I want to thank you.

***Linda S. Elting, DrPh***
00:51:52
Okay.

***Tacey Ann Rosolowski, PhD***
00:51:52
Thank you for the time today. And I am turning off the recorder at about two minutes after 3:00.

***Linda S. Elting, DrPh***
00:51:57
Okay.

# Linda Elting, DrPH

**Interview Session Three: February 19, 2015**

## Chapter 00C
## *Interview Identifier*

***Tacey Ann Rosolowski, PhD***
00:00:00
It's just amazing how each interview has a different sound level that needs to be set; it's so peculiar. Okay, so we are recording, and I'm Tacey Ann Rosolowski. Today is March 26th, 2015, and it's about 2:30. I forgot to wear my watch today. And I'm in Linda S. Elting, DrPH's office, and this is our third session. So thank you again for agreeing to do this.

***Linda S. Elting, DrPh***
00:00:37
Mm-hmm.

Interview Session: 03
Interview Date: February 19, 2015

Chapter **13**
## *Developing the Ambulatory and Supportive Care Oncology Research Program* **B: Building the Institution;**

Story Codes
A: The Researcher;
A: The Administrator;
C: Patients;
C: Patients, Treatment, Survivors;
C: Discovery and Success;
C: MD Anderson Impact;
C: Leadership;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
C: The Professional at Work;

***Tacey Ann Rosolowski, PhD***
00:00:38
And we strategized a bit before we started, and we're going to be talking today about your administrative role. So I was gonna kind of go through chronologically, if that's okay with you, and kind of get your—you know, what I'd like, is sort of what your role was, what your vision was, what you felt you accomplished. And the first one, Director of Clinical Epidemiology and Informatics in the Ambulatory and Supportive Care Oncology Research Program. And you were in what department in that time, that was the department you were in? And that—just to get names.

***Linda S. Elting, DrPh***
00:01:21
The department was General Internal Medicine.

***Tacey Ann Rosolowski, PhD***
00:01:24
Okay. All right. So—so let's see, you held that role between 1992 and 1998, and how did you come to occupy that directorship position?

***Linda S. Elting, DrPh***
00:01:39
It was a new research program that was developing in general internal medicine, which was a clinical department. They provided—they oversaw the ambulatory treatment center, the emergency center, the sort of general internist's view of all our patients. And they gave all the chemotherapy that was not given as an inpatient. So all the outpatient chemotherapy was given there—[coughs]—excuse me, and there was more and more interest in—in dehospitalizing people with cancer, and treating them in the outpatient setting. And so, the chairman of that department, Ed Rubenstein, was very interested in accompanying his trials of dehospitalizing care and treating in the outpatient setting with a collection of good data, with documenting the outcomes, and potentially identifying groups of people who were good candidates for treating in the outpatient setting. So the first few studies we did, we just sort of chose criteria out of our heads. Who would be safe to treat in the outpatient setting? But then, as more and more information

accumulated, we began to be able to specify some very clear criteria, clinical criteria for safe treatment outside. So, he started putting together a team to do good work in that area.

So I came in; I moved from Infectious Diseases to General Internal Medicine, primarily to oversee the first trials of outpatient treatment of fever and infection, which was pioneered in this institution. After the observation from all of us that, for example, the majority of breast cancer patient who were getting chemo who got fever were put into the hospital, and for about three or four, or seven days, we pushed their IV poles around the hall and walk up and down the street on Holcombe, and there was no reason for them to be in the hospital. It was just the standard of care, and everybody was afraid not to. And most of them would have been much more comfortable at their own home. So we started--

***Tacey Ann Rosolowski, PhD***
00:04:20
You seem very emphatic about that.

***Linda S. Elting, DrPh***
00:04:23
Oh yeah. Yeah, it was real obvious; the patients would tell you, "Why do I have to be here? I feel better; I'm fine." Usually, they were afebrile by the next day. So, they were ready to get up and go and do their thing again, and we were keeping them in the hospital for five to seven days on IV antibiotics for really no reason other than nobody had ever tried doing it outside.

***Tacey Ann Rosolowski, PhD***
00:04:50
Why do you think that was, and what made—why was MD Anderson the place where that happened first?

***Linda S. Elting, DrPh***
00:04:57
I—a couple of reasons. I think that originally, when we used to treat patients with infection, who had cancer, and had gotten chemo, a lot of them were leukemia patients, and those patients tended to get real low white counts that stayed really low for a long time. And they had really terrible infections that often killed them. When MD Anderson started doing chemotherapy in people who had solid tumors, particularly early in the course of their treatment, not late when they were really debilitated, but early in the ca—course of their treatment, they were pretty healthy. And the regimens that we used for chemo didn't cause your counts to be low for a really long time. And so, we had a population of people who was pretty healthy to start with. Their chemo was not keeping their counts low for a long time, and most of them were out of the hospital to get their chemo. So they didn't have hospital-acquired infections that were hard to treat. Most of them responded to one dose of antibiotics. So, I think those observations were made, and at the same time, frankly, we needed the beds. You know, all we ever do is add beds, and add beds, and add beds, and if you fill up all the beds with a bunch of people who don't need them, then surgeries get delayed, and there are all kinds of problems. So there was a real interest—I think the third thing that happened around the same time was that a bunch of newer antibiotics that were very broad spectrum, covering lots of organisms, were very effective, were available orally, as opposed to IV. So that made treatment in the outpatient setting a lot more practical.

So, Dr. Rubenstein just decided he would try. And he treated two or three people as a pilot, and usually what he would do, is they typically were at home, so they would come into the emergency room because they were told to do that if they got a fever. They would put them in the emergency room in the bed, give them a dose of IV antibiotics, and observe them for some number of hours. Usually their fevers went right back down, and then they would send them home with oral antibiotics, and tell them to come back in two days. And they would call them at home a couple times a day to be sure they're doing all right, find out what their temperatures were. And they did okay, so he developed a protocol—we developed a protocol together to do that, and to—to begin testing that. It was considered a wild and crazy thing to do. There were people, particularly in the northeast part of this country, who thought that it was unethical. Far too risky, too dangerous. And—but it turned out to be doable, and it's now the standard of care throughout the world.

But there was a goal to do this kind of work. And so, he wanted to beef up the science part of his faculty. So, I joined that faculty, and we also had a statistician, who was hired to join the faculty there. And we started doing trials and research. It was a good opportunity for me, because it pushed me to develop to think strategically. I had done a lot of management of people; you know, keeping all the balls in the air, and keeping the studies going, and that sort of thing, previously. What I hadn't done was really lead, and think strategically about what was a good direction to go, and what wasn't. And so, that was a real good experience for me.

***Tacey Ann Rosolowski, PhD***
00:09:47
Can you give me an example of that, a kind of strategic thinking that you learned during that time?

***Linda S. Elting, DrPh***
00:09:55

I think the—I guess what I'm calling "strategic thinking" is taking into consideration what the research program should be, so that—[coughs]—it leads to the next step. [coughs

***Tacey Ann Rosolowski, PhD***
00:10:19
Do you want to pause?

***Linda S. Elting, DrPh***
00:10:19
And that's—that's hard for junior people to learn. You know, you come up with an idea, and then you get the answer, but if it doesn't lead you to the next step, then it's not a program; it's a one-off.

***Tacey Ann Rosolowski, PhD***
00:10:40
Right, right.

***Linda S. Elting, DrPh***
00:10:42
So, and I had all these junior faculty running around—[coughs]—excuse me.

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Interview Date: February 19, 2015

***Tacey Ann Rosolowski, PhD***
00:10:48
Do you want—let's pause just for a second.

***Linda S. Elting, DrPh***
00:10:50
Let me get some water, that's--

***Tacey Ann Rosolowski, PhD***
00:10:51
Sure.

[The recorder is paused]

***Tacey Ann Rosolowski, PhD***
00:10:52
Okay, we're recording again after just a quick, quick stop.

***Linda S. Elting, DrPh***
00:10:55
Okay, so I had a bunch of junior faculty who were physicians. They all wanted to become associate professors someday, and they would think up all these ideas based on a patient they saw, or something that piqued their interest. And somehow, I had to get them into some kind of a reasonable program so that people's research complemented each other, so that—and so that we could proceed one step after the other, and it could be viewed as a cohesive program, instead of just some shotgun approach to ideas.

***Tacey Ann Rosolowski, PhD***
00:11:44
Now traditionally, you know, it's either the myth or reality of academic research that everybody has academic freedom. And was there resistance to that attempt to get people to coordinate their initiatives, so it was a cohesive program? Or did you not find it a problem to get everybody organized in that way?

***Linda S. Elting, DrPh***
00:12:05
[clears throat] I had no problem with that at all, because frankly, I think they would have preferred it if I had just told them what to do, you know, so they could get it done and be on with it. But, I mean, we had to think in terms of what we could fund, what was possible with the available resources, and then making the group look, as a whole, more and more attractive to external and internal funders. And, so I never had any trouble with anybody. They always were delighted to step right into line. Now, frankly I tried to tailor things to their interests.

***Tacey Ann Rosolowski, PhD***
00:12:56
Can I—just a quick detail I wanted to go back and catch. What was the name of the biostatistician who was part of that?

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***Linda S. Elting, DrPh***
00:13:03
Chuck Martin.

***Tacey Ann Rosolowski, PhD***
00:13:04
Chuck Martin, okay.

***Linda S. Elting, DrPh***
00:13:06
He's since left the institution.

***Tacey Ann Rosolowski, PhD***
00:13:08
Okay. Now what was your—can you—can you be more specific about what your vision was for this integrated program? What did you want it to accomplish?

***Linda S. Elting, DrPh***
00:13:20
[clears throat] Well it was not anything real rocket science-y. The goal was to describe for—to first, describe the prevalence of the problems that we saw, and get some feel for what problems—what clinical problems took up lots of resources, what—and then to move to what clinical problems were perceived by patients to be the worst. Because we were talking about side effects, mostly, in symptoms. And then, my goal was to have three kinds of studies going simultaneously in those areas. Some, just from observation of charts or whatever. Some clinical trials of new drugs, and then some that was collection of outcomes from patients directly, problems and outcomes, and symptoms and severity.

So, that's basically what we did. We had this—we started collecting, you know, just encounters. Why do people come to the emergency room? How long has it been since they were here in the ambulatory treatment center getting their chemo? What—and then, as we began to see that, and see some patterns, we started going to charts and collecting more detailed clinical information about the clinical problems that were common, or that were really expensive, that were frequently leading to hospitalization. And then, when we would get that far, we would then start another study where we would go directly to the patients and say, "You know, it seems like we've got a lot of people coming in with this problem. You have this problem. Is it because it's a particularly painful thing? Does it make you particularly frightened? You know, do you feel like you don't know what to do about it, or you know, what i—what's the reason why you're here, and is it worse, for example, than this other problem?" And so, from talking to patients about that, we were able to devise some studies to find out what their perception of the outcomes was, of how—of our treatment. So that was a—that was a good test of—of whether or not we were really hitting the mark that we were trying to hit.

Interview Session: 03
Interview Date: February 19, 2015

Chapter **14**
## *Training Clinicians to Think Analytically about Research Problems*
## B: Building the Institution;

Story Codes
A: The Researcher;
A: The Administrator;
A: Overview;
B: Building/Transforming the Institution;
C: Leadership;
D: Understanding Cancer, the History of Science, Cancer Research;
C: The Professional at Work;
D: On Research and Researchers;

***Tacey Ann Rosolowski, PhD***
00:15:55
Now you served in that role for six years. What did you feel you had achieved at the end of that time?

***Linda S. Elting, DrPh***
00:16:06
Well all the clinicians in the department were writing papers, and—and doing research. That was a plus. I never got to a point where I believed that any of them could write a grant application. I just didn't have the time or the inclination. There was not enough time to train them to be able to write an application. But—so I spent my time after false starts in trying to help them learn how to write grants. I spent most of time trying to train them how to be good clinical researchers, and how to think analytically instead of clinically. And I think having done that, it was a much—I was getting much better products from them, after that.

***Tacey Ann Rosolowski, PhD***
00:17:00
Now tell me what you mean when you say "analytical thinking." I mean, last time we talked about the training program where you were teaching clinicians to think in terms of populations. So, as you're talking now about analytical, as opposed to clinical thinking, what are you referring to?

***Linda S. Elting, DrPh***
00:17:17
Um, two things really. Part of it is thinking in terms of populations. And the other part is thinking quantitatively rather than qualitatively. Most of the clinicians would come to me and say, "I want to study this." And I would say, "How often does it happen?" And they would say, "Pretty often." And I would say, "How bad is it?" "Bad." "So, is it worse than this?" "No." So, those kinds of things, it's—it's kind of the difference between getting a precise estimation of something, and having a rank order of something. And until you can think quantitatively, you can't measure things precisely, and you can't figure out where you're starting and when you're finished. So, the move to—physicians think in terms of "common" and "uncommon," because they're going through this whole long list in their heads, of all the things this problem could be, and all the possible outcomes, and they're rank ordering it in their heads, about what they need to worry about, and what they don't need to worry about, or what they need to worry about first, and then what they'll worry about tomorrow if this doesn't work out; that kind of thing.

So it's one patient to many possible outcomes, and trying to sift through that information. And when you think analytically about a research problem, you have to take many patients and find out the few things that are common. And the only way to do that is to think quantitatively, and to begin to compare things by, numerically. Because, when you have one person, you can say, "Oh, common and uncommon," but a "common and an uncommon" multiplied by 20,000 patients and you don't know what you have. So, that's really where I focused my efforts, was getting people to think quantitatively, and getting them to recognize that an n of 1, one single person, did not make a trend. You couldn't make a statement of anything about one person that could be applied to someone else. So, that's mostly, you know, where I focused my work with them, in thinking.

***Tacey Ann Rosolowski, PhD***
00:20:00
Now, I'm not quite sure how to—how to ask this question, but it's kind of a culture question. Now you're trying to kind of shift this mentality within General Internal Medicine. Now—and that was a new way of thinking, sounds like, within General Internal Medicine. So, what—I guess what I'm wondering is, if there were people conducting qua—quantitative research, I assume, outside of that department? And did shifting that culture within General Internal Medicine kind of change the way General Internal Medicine clinicians were able to communicate with people outside? You know, did that help collaboration? Did it help communication?

***Linda S. Elting, DrPh***
00:20:50
I don't know that I would say it helped communication. I do believe it improved their ability to collaborate with other people in other departments, and it—in their adopting that approach, raised their credibility with—in terms of research. You know, they got their research cred by doing that, because that's an important thing to have in this institution. So, I think it was a plus for them.

***Tacey Ann Rosolowski, PhD***
00:21:32
What was the impact that you saw on their careers?

***Linda S. Elting, DrPh***
00:21:44
Some of them—well all of them did get promoted, and were able to do enough research to rise, now, to full professor. Some of them continued to do research, after they got to a point where they could have mostly fallen back on what they were doing. A couple of them—a couple of them changed the way they mentored other faculty and potential students, and—and involved them that way. And there is still a very strong program in General Internal Medicine, and in that area. So I think it became an important part of the department, which had been completely clinical up until then.

***Tacey Ann Rosolowski, PhD***
00:22:48
Who were some of the people who were involved in this period of time when you were developing this research program?

***Linda S. Elting, DrPh***
00:22:47
It was a multidisciplinary program, so Ken Rolston was the Infectious Disease specialist, and he was part of our group. The person in General Internal Medicine other than Ed Rubenstein was Carmen Escalante [oral history interview], and she's the current chair. Ellen Manzullo was really involved. I think that's the—the primary people. And when Carmen took over as chair when Ed left, she started recruiting people to positions with protected time for research. You know, her new positions, she structured that way.

***Tacey Ann Rosolowski, PhD***
00:23:52
What did you feel you had a—had personally accomplished, and that you learned through this—the end of this process, you know, which would then, went on to your next role?

***Linda S. Elting, DrPh***
00:24:07
I learned a lot about working with clinicians, who have no background in research. I learned a lot about—and in particular, about how to make expectations of them realistic, and help them frame a project around something they can really accomplish, instead of some perfect thing that would be the ideal study to do, that they'll never finish. And, I guess what's probably most important about it is that I learned that I didn't want to do that full-time. You know, I—I don't mind doing that a little bit, but I don't want to spend—I didn't want to spend all of my time facilitating research for other people. (laughs)

***Tacey Ann Rosolowski, PhD***
00:25:11
But you went on to another Director of Research project after that. (laughs)

***Linda S. Elting, DrPh***
00:25:14
Well I mean, I consider that all the same thing, together--

***Tacey Ann Rosolowski, PhD***
00:25:17
I see, okay.

***Linda S. Elting, DrPh***
00:25:18
You know, when I—when I worked as—it was just a change in title.

***Tacey Ann Rosolowski, PhD***
00:25:21
Change in title. And so, it was in 1998, and then in—ending in 1999 that you were--

***Linda S. Elting, DrPh***
00:25:26
Yeah.

***Tacey Ann Rosolowski, PhD***
00:25:26
--Director of Research in the Section of General Internal Medicine.

***Linda S. Elting, DrPh***
00:25:29
Yeah. At that point, the other PhDs, the statistician and others were working for me, and I was directing that kind of thing, but it was still the same position.

***Tacey Ann Rosolowski, PhD***
00:25:38
Okay.

***Linda S. Elting, DrPh***
00:25:39
You know, make research happen in that department.

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Interview Date: February 19, 2015

Chapter **15**
## *Developing Health Services Research in the Division of Cancer Prevention*
## B: Building the Institution;

Story Codes
A: The Researcher;
A: The Administrator;
B: Building/Transforming the Institution ;
B: Multi-disciplinary Approaches;
B: Growth and/or Change;
B: MD Anderson History;

***Tacey Ann Rosolowski, PhD***
00:25:41
Okay. And so, in 2001, you became Chief of the Section of Health Services Research, and we also have to talk about departments at that point. So, tell me a little bit about that change, going from Director of Research to this chief of this section.

***Linda S. Elting, DrPh***
00:26:05
Well, it's kind of an odd story. The institution—that was a time when it was believed that health services research was going to be really important for the future of healthcare institutions.

***Tacey Ann Rosolowski, PhD***
00:26:22
Can you give me a definition of what "health services research" is, please?

***Linda S. Elting, DrPh***
00:26:26
It's research about the delivery of services, and about the outcomes of health services, rather than specific treatments, and about both their healthcare and economic business outcomes. So—[coughs]—there was this believe that that was an important area. I was one of the few people doing that kind of research. So, there was a decision made to start a new Department of Health Services Research.

***Tacey Ann Rosolowski, PhD***
00:27:06
Who made that decision?

***Linda S. Elting, DrPh***
00:27:08
Oh, who knows? Someone above my pay grade. [laughs] And it was going to be in the Division of Cancer Prevention, so they started it up and invited me to join the department, along with Scott Cantor, and so we moved to the new department with all our students and people, came with us. And they began a search for a chairman. And they searched, and searched, and searched. And then they realized that there wasn't anybody, so I got a call one morning from the provost, at that—she wasn't the provo—what was her—what was Margaret's title, Margaret Kripke [oral history interview]? She called me up, and she said, "Well, we can't find a chairman. You're too young. You're going to be a Section. You're in charge. Go find a department to be in." [laughs]

***Tacey Ann Rosolowski, PhD***
00:28:09
[laughs]

***Linda S. Elting, DrPh***
00:28:12
And I said, "Well, am I making this decision for me, or for our whole group?" She says, "The whole group. You're in charge now."

***Tacey Ann Rosolowski, PhD***
00:28:21
Wow.

***Linda S. Elting, DrPh***
00:28:21
So I started interviewing department chairmen, which was odd. And I interviewed—I talked to, I guess, three or four or five department chairmen, where it might sort of make sense. And we—and I made a decision that we belonged in biostatistics, primarily because what we were doing was very quantitative at that point. They had the best quantitative resources and computer resources in the institution, and everyone else that I talked to was desperately trying to get more resources of that sort. So I felt like that was going to give us the best shot at having the resources that we needed. The chairman, Don Berry, was interested in this kind of work, and in that kind of statistical modeling you might do with this sort of work, and he was real supportive, so that's what happened. And, we were the applied mathematics piece.

***Tacey Ann Rosolowski, PhD***
00:29:41
So, because it was Biostatistics and Applied Mathematics?

***Linda S. Elting, DrPh***
00:29:44
Mm-hmm, mm-hmm.

***Tacey Ann Rosolowski, PhD***
00:29:45
Okay. Now was "Applied Mathematics" appended to the name once you joined, or was it already part of--

***Linda S. Elting, DrPh***
00:29:52
No. Actually, at sort of the same time, although it could have been a year apart, they were consuming the Biomath department. Biostats and biomath originally were together decades and decades ago. And then, biostatistics became its own department. And then, when I was—when we were joining, biomath was coming back into biostatistics. So--

***Tacey Ann Rosolowski, PhD***
00:30:32
What was the reasoning for that? I mean, was it another, "who knows?" or—[laughs].

***Linda S. Elting, DrPh***
00:30:40
I suspect a lot of the—I suspect a lot of the issues were political, but one of them was that the Chairman of Biomath, Stu [Stuart] Zimmerman, who had been the—I think, the first Chairman of Biomath here. I mean, he had been here as the chairman for forty years or something, or thirty years or something, was getting older, and was beginning to look at retirement. It really made no sense to have two separate departments, since their work, although not the same, was very closely related. And there was good reason to believe that there would be synergy by having them together. So I think it was just the goal to get the people who did a lot of the same kinds of work to be closer to each other, and learn from each other, and I suspect there were lots of skeletons involved in it too, but from the outside, that's kind of what it looked like.

***Tacey Ann Rosolowski, PhD***
00:31:37
So tell me about your kind of—what were your marching orders, as section chief?

***Linda S. Elting, DrPh***
00:31:46
You just heard them.

***Tacey Ann Rosolowski, PhD***
00:31:47
Okay. [laughs

***Linda S. Elting, DrPh***
00:31:47
Find a place to be.

***Tacey Ann Rosolowski, PhD***
00:31:49
Find a place to be.

***Linda S. Elting, DrPh***
00:31:49
And then when I found a place to be, then I was supposed to make us famous.

***Tacey Ann Rosolowski, PhD***
00:31:54
[laughs] And how did you go about doing that?

***Linda S. Elting, DrPh***
00:31:56
[laughs] We did it by writing papers and getting grants, you know? And that was the only way I knew to be famous. I didn't want to be infamous. [laughs] I didn't march, or get arrested or something. So when I—when I was told I was a section chief, I can't believe I did this, but in the same conversation, I said, "Can I have a position for an economist?"

***Tacey Ann Rosolowski, PhD***
00:32:25
Oh, wow.

***Linda S. Elting, DrPh***
00:32:27
And Margaret said yes.

***Tacey Ann Rosolowski, PhD***
00:32:30
Now why did you want that position?

***Linda S. Elting, DrPh***
00:32:32
Well, I felt like—you know, health services research departments are usually departments in a school of public health. They're multidisciplinary, and they have lots of different kinds of people. And there are some health services departments, and sort of clinical institutions, they tend to be really focused on clinical outcomes. Although some programs are focused on clinical and patient decision-making and shared decision-making. And I felt that, for us, what we needed was to be a little different; to have something unique to offer. And one thing that no one else had was someone doing healthcare econom—economics, in cancer. I mean, there just wasn't anybody doing that at that point. And so, I felt that that would be a way to distinguish us from other groups, in particular because it was something that really interested me at that point. I was starting to teach myself some economics, starting to look at the cost of care, and you know, because patients often told me it was a real burden for them. So, I asked for a position, and she gave it to me. So, I recruited Tina Shih to come here and start a program in cancer economics. And—and she did that, and did a very fine job of it too.

***Tacey Ann Rosolowski, PhD***
00:34:06
And her last name is spelled--

***Linda S. Elting, DrPh***
00:34:07
Shih, S-H-I-H. And she worked here for about—I don't know, five years, or seven years or something, and then left to go to the University of Chicago, the mecca for economists. But we just recruited her back, so she's back here.

***Tacey Ann Rosolowski, PhD***
00:34:26
Oh, interesting.

***Linda S. Elting, DrPh***
00:34:27
In this department. So, that was a—that was a good recruit.

***Tacey Ann Rosolowski, PhD***
00:34:33
Yeah, yeah. So, now you held that position until your retirement.

***Linda S. Elting, DrPh***
00:34:41
Mm-hmm.

***Tacey Ann Rosolowski, PhD***
00:34:42
And, tell me--

***Linda S. Elting, DrPh***
00:34:44
Well I held that position until we moved from Biostatistics to this new Department of Health Services Research, where I am now.

***Tacey Ann Rosolowski, PhD***
00:34:51
Okay, and so that position officially ended when, then? So from 2001 until--

***Linda S. Elting, DrPh***
00:34:58
Yes, we moved here in 20—13?

***Tacey Ann Rosolowski, PhD***
00:35:06
Okay. Okay, so what—what was your—how did your plan evolve during that time, for how things were to evolve?

***Linda S. Elting, DrPh***
00:35:20
We had to fit our program into the biostatistics model, which was awkward.

***Tacey Ann Rosolowski, PhD***
00:35:34
Why so?

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***Linda S. Elting, DrPh***
00:35:36
Well we—all our research we did as PIs, all of the—a lot of what they did, and there are some statisticians who don't—aren't PI on anything. You know, they work full-time with other PIs doing the statistics. So there wasn't great infrastructure to support a principal investigator. Nor was there really an understanding of what that infrastructure might be like. And so, we had some—it was a very strange marriage of our group to theirs, because we didn't do the same things, in the same way. We had really different issues, but we figured out a way to work together, and we didn't fight much, so I consider it a success. [laughs]

***Tacey Ann Rosolowski, PhD***
00:36:46
So what were some of the kind of landmarks of evolution?

***Linda S. Elting, DrPh***
00:36:55
I guess when we first arrived, Don Berry, I think, had told everybody they had to be nice to us and make us happy. And so for awhile, we got invited to every meeting, and every new project, and every new this. Well after we did that for awhile, they realized we didn't know anything that they needed to know. They were doing other kind of stuff. So for a—after that, there was this long period when we said hello, we saw each other at the elevator—we would say hello over lunch. And it was a really social relationship that we had with everyone else in the department. And we were never in meetings, or any projects together. And—but finally, we sort of figured out what they did, and what they were good at, and they figured out the same thing about us, so we actually started to work together to do things, and to do some research, and then it was fun.

***Tacey Ann Rosolowski, PhD***
00:38:01
So what were the projects you began to collaborate on?

***Linda S. Elting, DrPh***
00:38:04
I started asking a statistician to work with me on some of my population-based studies, because I was interested in multi-level modeling, where patients are nested in doctors who are nested in hospital, who are nested in regions of the country, or networks, and that kind of thing. And when we started working together on—and that's a very sophisticated statistical model; it's not one I would build myself. I would want a statistician to do it. And when we started working together on that, and we started talking, and going back and forth, I think we all started to realize about how we could collaborate together. Because a lot of what I was doing, was similar—very similar mechanically to what they were doing with gene arrays.

***Tacey Ann Rosolowski, PhD***
00:39:01
Oh, interesting.

***Linda S. Elting, DrPh***
00:39:03
You know, because there are—you know, there are chromosomes, and genes, and they're in regions, and all of that. And once they figured out what my challenge was mathematically, they immediately understood kind of what I was doing, and—and so, that's when we started to talk back and forth, and work productively.

***Tacey Ann Rosolowski, PhD***
00:39:29
What were some other landmark moments? And while you're thinking, I'm going to pause, just for one sec.

[Recorder is paused]

***Tacey Ann Rosolowski, PhD***
00:39:36
Okay, there we go. [laughs]

***Linda S. Elting, DrPh***
00:39:39
I guess, the other landmark for me in that department was when I was appointed to be Chair of the Institutional Review Board [IRB], because statisticians deal so much with the IRB. And so, pretty soon I got all of their questions, and—and all of their concerns.

***Tacey Ann Rosolowski, PhD***
00:40:07
And you were appointed as vice-chair in 2003.

***Linda S. Elting, DrPh***
00:40:11
Mm-hmm.

***Tacey Ann Rosolowski, PhD***
00:40:12
Okay.

***Linda S. Elting, DrPh***
00:40:16
Vice-chair in 2003?

***Tacey Ann Rosolowski, PhD***
00:40:17
That's what I have from your CV.

***Linda S. Elting, DrPh***
00:40:19
And Chair in 20--

***Tacey Ann Rosolowski, PhD***
00:40:21
And five.

***Linda S. Elting, DrPh***
00:40:22
Five, okay. Okay. Yeah. So, that raised my profile and credibility in the department, as elsewhere. But in particular, that was a place where we could provide some service to them, and so we were all getting along much better then.

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Chapter **16**
## *Institutional Review Boards at MD Anderson*
## B: An Institutional Unit;

Story Codes
B: Institutional Processes;
B: MD Anderson History;
B: Building/Transforming the Institution;
A: The Administrator;
C: Controversies;

***Tacey Ann Rosolowski, PhD***
00:40:47
Now explain to me this role on the Institutional Review Board. Now, did you just serve that role within the department, or was that a go-to place for individuals throughout the institution who needed this--

***Linda S. Elting, DrPh***
00:41:02
Oh, it's for the whole institution.

***Tacey Ann Rosolowski, PhD***
00:41:03
That's what I thought, okay. So, explain to me what that role entailed.

***Linda S. Elting, DrPh***
00:41:09
Well I joined as a vice-chair—well let's see. I joined as a member years before that when it was recognized that the research that was not clinical trials, that was going to the IRB, and for scientific review, was not getting the kind of review it needed from the clinicians who populated the IRB and the Clinical Research Committee. And so they started what they called a Psychosocial, Behavioral, and Health Services Review Committee [PBHSRC] that was paralleled to the Clinical Research Review Committee, and it was staffed with people who were psychologists and health services researchers and epidemiologists, to do the scientific review. And then it gets—once passed, the scientific review goes to the IRB for human subjects review, and final approval. And so, I was asked to chair that committee when it started, the PBHSRC. And, so as Chair of that, I was reported as a member to the IRB where all of our protocols would be going. And I presented our protocols there to the group, and you know, that sort of thing. So, my role was to chair the scientific review, and once the scientific review had been approved, then to present the protocol to the Institutional Review Board, and at that point, there was only one IRB. And then it would be voted on, and approved, and then monitored in the future by the IRB.

***Tacey Ann Rosolowski, PhD***
00:43:08
Now, was there a sense—I guess I'm interested in kind of the history of the IRB at MD Anderson. You know, were there changes during the time that you were here, and how that was looked at? I mean, the complexity of the review process, what was looked at, what the benchmarks were, how did that evolve? I mean, because research was changing so much. So that's what I'm trying to get a sense of.

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***Linda S. Elting, DrPh***
00:43:42
Yeah. Well the IRB started in MD Anderson in 1966, I think? It was at—it actually began before it was a requirement of the federal government. It was a group of six or eight physicians to start with, and it only reviewed research that was funded by the NCI originally. And I think at their first meeting, they only reviewed three protocols. And over time, it had morphed to a large committee. We—MD Anderson had signed a federal-wide assurance agreement, which is a contract with the federal government that says all research conducted at MD Anderson will comply with the federal regulations; not just the federally-funded research. And when we did that, that meant everything had to go through the IRB. And so, when I joined the IRB, Aman Buzdar [oral history interview] was the chair, and—our meetings were just interminable. You know, we would go through twenty or thirty protocols a month, and there was this huge backlog. And so, as I began to be in the IRB group, there was a huge push to make the review and oversight process more effective, more efficient, and not to slow research down. So, while I was still on the IRB, it split into two. And we—that meant there were two meetings a month, and we hoped that would clear the backlog. And when that happened, I was appointed as a vice-chair. As Vice-chair of the IRB at that point, that was the o—there were only two IRBs, and they were the same. They reviewed the same research; research was randomly assigned to the two. They were always chaired by physicians, male physicians. [laughs] And—but there were a lot of duties of the IRB that could be performed outside the actual meeting, and approvals that could be done by a chairman administratively, but only if you had enough vice-chairmen to do the work, because no IRB chair could get all that done. So--

***Tacey Ann Rosolowski, PhD***
00:46:38
Tell me a little bit, because I actually don't know anything about how the IRB works. So what would you do, what is the work that you're referring to, in reviewing these protocols?

***Linda S. Elting, DrPh***
00:46:51
The researchers protocols, written protocols are submitted to the IRB for review. We have to review, first of all, that the language and the informed consent is appropriate; that it accurately reflects the risks and benefits of the study. We had to review the whole protocol design for risks and ensure that there is no way that we could further reduce risks, and make a decision about whether there are risks that have not been appreciated by the principal investigator. We are required once a protocol was approved to monitor the conduct of the study, to monitor all adverse events, to check their reporting status to ensure that the status is going adequately, and then to—at the close of the study, to look at the results, and ensure that everything was conducted according to the federal regulations. Our other job to train researchers what the regulations are.

***Tacey Ann Rosolowski, PhD***
00:48:14
I'm just—this may be a "tip of the iceberg" kind of question, but I'm wondering how do you define, for example, an "adverse event"? I mean, I'm wondering is there discussion about how to interpret risk, how do interpret (inaudible)--

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***Linda S. Elting, DrPh***
00:48:31
[coughs] Oh yeah. There's a lot of back-and-forth. An "adverse event" is something that happens that's bad during the conduct of the study. And it could be, the patient threw the medicine up. It could be they get an infection; it could also be there was a breach of confidentiality and their data was lost, or distributed. It could be that, you know, they shocked themselves with the little device they're using.

***Tacey Ann Rosolowski, PhD***
00:48:56
I see, okay.

***Linda S. Elting, DrPh***
00:48:59
All kinds of things can be adverse events, and they are all reviewed. So there's one vice-chair who spends full time reviewing adverse events. There's another vice-chair who spends a lot of time looking at changes to protocols, because every change that's made has to be approved by the IRB. There's a vice-chair that spends full time, one or more, reviewing protocols that don't have to go to full review, that are, for example, chart reviews, or things like that, a study to establish a database. That doesn't need to go to full review at the committee. A vice-chair can sign off on it.

***Tacey Ann Rosolowski, PhD***
00:49:44
Now, I mean, very candidly, I've had so many conversations with people in the process of doing these interviews, and a great many of them, particularly older generation folks, you know, are not shy in saying that the IRB process has become extremely top-heavy and stands in the way of research, and you know, that's clearly their perspective. I mean, as someone who's been very, very involved in this for over a decade now, what is your view of the IRB process and its value to research, to the institution, et cetera?

***Linda S. Elting, DrPh***
00:50:26
I guess I would say two things. The first is that when I first came to this institution, the IRB did not have sufficient resources to provide hardly any oversight. And as a result, there were never any situations where the IRB came to you and said, "Your study is deficient in this area. You have to stop until you fix it." So, there's no one who randomly chooses a protocol, and then verif—was no one who would verify that everyone had signed an informed consent. After some inspections from the Food and Drug Administration in the early eighties where we were unable to produce informed consents for clinical trials and such, we began to have a lot more interest—the administration had a lot more interest in ensuring that we were truly complying with the regulations. So the regulations governing research have not changed, but our attention to them has changed dramatically. So that's the first thing. So anyone who was here in the seventies was here in the cowboy research days, where you just sort of decided you wanted to do something, and you did it, and there was no oversight.

So, after this started, there was more and more interest in this oversight job, because the oversight piece is what was lacking, and that's what could end up having MD Anderson's right to do research stopped, as has happened in other big institutions in the nation. Which would cost MD Anderson an arm and a leg. So, there was this sudden—recognition that oversight needed to be happening. And so they said, "Okay, now we're going to do it." Unfortunately, there was no trained infrastructure to make it happen efficiently and correctly. And so, over time, the infrastructure has increased. The processes have gotten more—in some cases, more efficient, but the computer systems lagged behind, and they were almost entirely paper systems, which is not a good way to manage the number of studies at MD Anderson. So they're still in the process of trying to come up with an electronic system that will, you know, make the—automate the IRB functions, reporting and everything. So that's one of the reasons that someone who has been here a long time would perceive this to be very egregious, because it's so much more specifically-directed at oversight than it was initially.

So the other thing I would say is that when HIIPA, the Health Insurance Information and Portability Act, was passed, the intention of which was to ensure that information could move between entities, that act crippled us by putting so many regulations and rules in place that affected research that we have to jump through ten times more hoops than we used to. Now, that is not specifically governing research, but at this institution, as in most others, the IRB is also the privacy board, and manages the HIIPA regulations. And that has been just nightmarish for all of us—you know, for me too as a researcher, to deal with the requirements. And the requirements were put into place without ever really considering researchers. So it's a federal law, and unlike the research regulations, which are also federal laws, instead of just being subject to civil penalties, under HIIPA, all of us as researchers are subject to criminal penalties for violation of HIIPA regulations. So, the stakes have changed considerably as well.

***Tacey Ann Rosolowski, PhD***
00:55:35
We're almost at our hour time. Can I ask you one more question--

***Linda S. Elting, DrPh***
00:55:40
Sure.

***Tacey Ann Rosolowski, PhD***
00:55:41
--because you've been working with the IRBs, you know, for all of this time. Why have you—what is the commitment that you felt to dealing with this important part of the institution?

***Linda S. Elting, DrPh***
00:55:55
Initially, I did it because it was an opportunity to raise my profile professionally. Getting put in that chairmanship position of the PBHSRC when I was a junior associate professor, was the kind of opportunity that almost no one ever gets, particularly for someone who's not a physician. So, that was an opportunity I needed to capitalize on. I was interested in the whole issue because it was something I didn't understand or know, so as I learned about it, I realized how big a problem it was, and how simple it would be to fix if people had ever read the regulations themselves. But you know, none of us read the instructions when we should. And then, it became really clear as we—as I worked there that the whole IRB process, as it was done at MD Anderson for clinical research, didn't fit for research that wasn't clinical research. And just the whole thing didn't work. And we needed a completely different process.

And that became more and more and more evident, and—then a decision was made, I think, by Aman Buzdar, and—who I—could have been Maurie Markman, who was Vice President for Research then, that they needed to add another IRB, and it needed to focus on the issues that dealt with social science kind of research, and non-clinical research, and they asked me to be chair, which was a once-in-a-career kind of opportunity to take a leadership position in the institution. So, I felt like I could do the job, and I liked the idea of starting from scratch, and building it, and fixing the issues that I knew were there. And it was a great job. Hard, time-consuming, stressful, but it was a really good job.

***Tacey Ann Rosolowski, PhD***
00:58:07
Would you like to leave it there for today? I mean, I don't want to abuse your time.

***Linda S. Elting, DrPh***
00:58:11
Sure.

***Tacey Ann Rosolowski, PhD***
00:58:12
Okay. And then we can—I hope I can impose on you for another session, because I know we have more things to ask.

***Linda S. Elting, DrPh***
00:58:18
Sure. Sure.

***Tacey Ann Rosolowski, PhD***
00:58:19
All right, great. Well thank you so much. I mean, this is just a really interesting look at a part of the institution that nobody's really talked about from an insider's perspective before, so very, very interesting. Thank you, Dr. Elting for your time today.

***Linda S. Elting, DrPh***
00:58:31
Sure. My pleasure.

***Tacey Ann Rosolowski, PhD***
00:58:33
Thanks.

# Linda Elting, DrPH

**Interview Session Four: April, 23, 2015**

## Chapter 00D
## *Interview Identifier*

***Tacey Ann Rosolowski, PhD***
00:00:00
The interview officially here, because we weren't recording before. OK. So I just want—we are now recording. And I just wanted to say that I'm in the office of Linda S. Elting, DrPH. And this is our fourth session together. The time is about seven minutes after 2:00. And today is April 23rd, 2015. I'm not missing a day, am I? I mean the days—

***Linda S. Elting, DrPh***
00:00:24
No, you're not.

***Tacey Ann Rosolowski, PhD***
00:00:25
Oh, good. I was like oh great, how embarrassing, it's actually 2016, and it's the 24th. (laughter)

***Linda S. Elting, DrPh***
00:00:32
That's right.

***Tacey Ann Rosolowski, PhD***
00:00:34
OK.

***Linda S. Elting, DrPh***
00:00:35
That would be bad.

Interview Session: 04
Interview Date: April 23, 2015

Chapter **17**
## *A Brief History of Office Space Occupied*
## A: Personal Background;

**Story Codes**
A: Personal Background;
C: Funny Stories;
B: MD Anderson History;

***Tacey Ann Rosolowski, PhD***
00:00:36
So you were going to say you did some homework for our meeting today.

***Linda S. Elting, DrPh***
00:00:39
I did homework. I calculated, and it took me a while, the number of offices that I have had in almost forty years at MD Anderson. And it's twenty-four.

***Tacey Ann Rosolowski, PhD***
00:00:50
Twenty-four offices.

***Linda S. Elting, DrPh***
00:00:51
Twenty-four offices, which means twenty-three moves. (laughter) I've been in many buildings. Two of the buildings have been imploded and no longer exist.

***Tacey Ann Rosolowski, PhD***
00:01:06
I know one was the Prudential Building or the Main Building.

***Linda S. Elting, DrPh***
00:01:09
One was the Old Main, Prudential Building. The other one was a building that used to stand across the street here, the Center Pavilion Hospital.

***Tacey Ann Rosolowski, PhD***
00:01:17
Oh.

***Linda S. Elting, DrPh***
00:01:18
Both of those buildings were imploded, and in both cases they notified us beforehand and we were not in the building. (laughter)

***Tacey Ann Rosolowski, PhD***
00:01:27
And you considered that a real vote of confidence in your work.

***Linda S. Elting, DrPh***
00:01:29
I take that as a measure of the value the institution places in my work.

***Tacey Ann Rosolowski, PhD***
00:01:42
(laughter) Hey, you take it where you can find it.

***Linda S. Elting, DrPh***
00:01:44
That's right, that's right.

***Tacey Ann Rosolowski, PhD***
00:01:44
You totally do.

***Linda S. Elting, DrPh***
00:01:45
It's not all that available around here. So I try to view things in a positive way.

***Tacey Ann Rosolowski, PhD***
00:01:51
There we go, there we go. So what other homework did you do? Did you think of some subjects that you wanted to cover?

***Linda S. Elting, DrPh***
00:01:59
I don't think so. My first parking place at MD Anderson was right about where we're now sitting. This was the remote parking for MD Anderson.

***Tacey Ann Rosolowski, PhD***
00:02:17
And I have to say we are in Pickens Academic Tower on the ninth floor. Now literally was the parking this high? Or was it—it was a surface lot.

***Linda S. Elting, DrPh***
00:02:25
No, no, it was surface parking, and it was actually a little closer to Holcombe than we are right now. It was closer. But this was the remote parking when I first came to MD Anderson.

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***Tacey Ann Rosolowski, PhD***
00:02:36
Isn't it staggering? That's staggering how much the institution has grown, really. Wow, wow.

***Linda S. Elting, DrPh***
00:02:40
Yes. So that's my two bits of trivia for the day.

***Tacey Ann Rosolowski, PhD***
00:02:46
OK. Those are good bits of trivia. They really are good bits of trivia. I'm actually planning on putting together a matchup game with fun facts about people and guess who, which one of our interview subjects, has that. So it could be who has had twenty-four offices, two of them in imploded buildings.

***Linda S. Elting, DrPh***
00:03:03
Well, I suspect there are people who have had more offices than I've had. But not many. (laughter)

***Tacey Ann Rosolowski, PhD***
00:03:11
I'm amazed you got any work done with all those moves. That can be such a pain in the neck. All right.

Interview Session: 04
Interview Date: April 23, 2015

Chapter **18**
## *A Brief History of Institutional Review Boards at MD Anderson*
## B: An Institutional Unit;

**Story Codes**
B: Building/Transforming the Institution;
B: Institutional Processes;
C: Understanding the Institution;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
D: Ethics;

***Tacey Ann Rosolowski, PhD***
[00:03:11]+
Well, if I may, I'll start with some of my questions. And the first one is actually a little detail thing. You had given me a very complex acronym for an IRB that you set up, the one for nonclinical work. Begins with PR or something. And I did not take it down properly. So I wonder if you could review that for me.

***Linda S. Elting, DrPh***
00:03:39
Yes. So actually it's not for the IRB. So IRBs are the last committees that research goes to. Prior to that there is scientific review by a separate committee. And the scientific review for clinical IRBs is the CRC, the Clinical Research Committee. And currently there are four of those and two clinical IRBs. And then for the Behavioral and Psychosocial and Health Services IRB, there is the PBHSRC.

***Tacey Ann Rosolowski, PhD***
00:04:18
PBHSRC. That was the one that I missed.

***Linda S. Elting, DrPh***
00:04:23
Which is Psychosocial, Behavioral, and Health Services Research Committee.

***Tacey Ann Rosolowski, PhD***
00:04:30
OK. So there are the two IRBs associated with clinical. Now there are four IRBs total at the institution, right? What are the other two related to?

***Linda S. Elting, DrPh***
00:04:39
Well, there are actually now three clinical IRBs. There were two a while back. But there are three clinical IRBs. There's the Psychosocial and Health Services IRB. And then there's the executive IRB. And the executive IRB deals with policy issues, deals with serious problems that come to the various IRBs.

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***Tacey Ann Rosolowski, PhD***
00:05:13
What kind of a problem? Can you give me an example?

***Linda S. Elting, DrPh***
00:05:15
Well, serious mistakes made in research. Failure to obtain—serious violation of regulations. And then policy making dealing with problems that are common to all the IRBs in order that they will be consistent. And additionally deals with adverse events. Monitors adverse events. And that's primarily because if you have three clinical IRBs you could have a protocol with a new drug going to all three IRBs but everybody sees only one protocol and doesn't realize that there's a serious problem with adverse events arising. So all the adverse events are reported to the one executive IRB so we can see the whole picture.

The executive IRB is comprised of the chairs of all the other IRBs, a couple of vice chairs, and one or two other members who are on there to provide expertise that isn't covered clinically or scientifically by the IRB chairs and vice chairs.

***Tacey Ann Rosolowski, PhD***
00:06:27
Now when was the executive IRB established and why? I mean why at that time?

***Linda S. Elting, DrPh***
00:06:35
It was established primarily because originally we had only one IRB. And pretty soon our meetings were lasting for five and six hours. Just too much work.

***Tacey Ann Rosolowski, PhD***
00:06:46
Right, I remember you mentioned last time that there was just—

***Linda S. Elting, DrPh***
00:06:48
And then they went to two IRBs. When we went to three IRBs it became clear that when we had these decisions being made in three different rooms with three different chairs, in order to be relatively consistent and not be giving conflicting answers to problems and dealing with policy issues that affected all three, we needed to meet separately to coordinate those activities. And so my IRB was the third IRB that was started. So when they started the third IRB they also started the fourth IRB, which was the executive IRB. And then we would meet once a month for that IRB as well to discuss those issues. And then later we added a third clinical IRB.

***Tacey Ann Rosolowski, PhD***
00:07:39
OK. So let's see. I'm trying to look when you went onto the IRB first. In 2003? Is that correct? Or were you involved earlier? Because that's when you were chair?

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***Linda S. Elting, DrPh***
00:07:54
Yeah, I became the—I don't know, I can't remember the years. But I was involved in the IRB as a member on a clinical IRB since the late '90s.

***Tacey Ann Rosolowski, PhD***
00:08:11
And the reason I was just asking about the dates in that way is because I was going to ask you since you also have seen what's going on in the executive IRB. Have you noticed that that IRB has had more issues to deal with? I'm wondering about fluctuations and pressures on researchers basically and if that's showing up either in mistakes or in ethical issues? What's your observation about that?

***Linda S. Elting, DrPh***
00:08:41
I think the pressures have changed a lot. Before we had multiple IRBs there was very very little oversight of ongoing research. And I guess in the mid '90s maybe, somewhere around that timeframe, mid to late '90s, the institution made available to the IRB a lot more resources. And part of those resources were dedicated to monitoring research as it was ongoing to pick up problems before they became major violations. And so an infrastructure grew up around auditing. And it was initially primarily the clinical IRBs that did monitoring of clinical trials. It was a separate mechanism. Audits went on and happened separately. But if there were problems identified they were reported to the IRB. So that was an initiative that got started up, and it resulted in finding a lot of problems, and then the institution putting more money into research infrastructure, particularly in research support at the department level, so that there was sufficient number of support staff to actually do the kinds of things that were required by the regulations and by the Food and Drug Administration. So I think that was a big increase in the amount of nonclinical nonscience requirements for researchers and their staff, because now someone was coming and checking to be sure you had properly documented all this stuff. And documentation was not high on the list of priorities for a lot of investigators.

And then I guess the next big push that increased even more the difficulties with documentation and all kinds of things like that and pressure on researchers was HIPAA.

***Tacey Ann Rosolowski, PhD***
00:11:24
Right. You mentioned that last time.

***Linda S. Elting, DrPh***
00:11:25
When the HIPAA regulations were passed—well, when they were written, they really threw a monkey wrench into everything we were doing in terms of research. It made everything more complex to do and more difficult to do if you didn't violate the law. And what was different about HIPAA, I may have said before, I can't remember, was that more than just getting slapped on the wrist by the Food and Drug Administration or having your name on the bad list, there were both civil and criminal penalties associated with violation of that law. So that happened. And then they started auditing for HIPAA purposes some of the big institutions, and they actually shut down research at some big institutions.

So that made the people at the top of MD Anderson, particularly in compliance, very interested in having things done properly. So that was a huge increase in documentation and in the complexity of getting informed consent and protecting the privacy of research subjects.

And then I guess the most recent thing, two things happened at once. Lots of people started doing genetic testing and genomic research. And that has lots of difficult ethical issues with respect to research subjects and to their families. For example, their children, who carry the subjects' genes. So that happened at about the same time there was a lot more interest—which is still increasing—in use of large databases and data sets and analysis of big data. And big data usually means that it's compiled from a bunch of different places. So data moves from one institution to another. And so if you and I were in the hospital someplace and we had records there, we might have no idea that our records were being shared with somebody across the world.

So those changes in science and the political arena caused a lot more work for researchers. And they found out about it through the IRB. So there were external developments and pressures that had to be implemented by the IRB.

And so that contributed to an adversarial relationship between researchers and the IRB, which is sometimes bad, and sometimes it's not so bad, depending on the situation and what's going on.

Interview Session: 04
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Chapter **19**

## *Researchers in Relationship to Institutional Review Boards: A Perspective from an IRB Chair*

## B: An Institutional Unit;

**Story Codes**
B: Building/Transforming the Institution;
B: Institutional Processes;
C: Understanding the Institution;
C: The Professional at Work;
A: The Researcher;
D: Ethics;
A: Contributions;
C: Leadership;

***Tacey Ann Rosolowski, PhD***
00:14:33
This is explaining something else I noticed from my background research, which is that you do a lot of training and explaining about IRBs. I can see why that would be the case now.

***Linda S. Elting, DrPh***
00:14:46
Yes. Yeah, everybody and their brother in this institution wants the chair of the IRB to come and give a talk to their department about the current problem or issue. And everybody who trains fellows, and everybody who trains budding scientists, they just all want to know. Can we have a question and answer period? Well, with the number of departments and the number of researchers, pretty soon the answer has to become no. There are only so many IRB chairs. We do always have day jobs that we have to get done.

***Tacey Ann Rosolowski, PhD***
00:15:28
So how have the IRBs addressed that need in the institution for education?

***Linda S. Elting, DrPh***
00:15:34
Well, to begin with, a training program was developed, which is required for all new faculty members. Subsequent to that it was required additionally for all research nurses in the hospital. And IRB had a big part in those training programs. It's all about research methods.

That's one way to get it out there. We as individuals did a lot of lecturing, particularly to fellows and trainees, since they were often the people who were implementing research that was being run by faculty members. So we did a fair amount of that.

And we've attempted to formalize the training a lot. We've identified online resources that people can use and go back to where they can also get certifications. We've done some materials of our own. There have been many situations where there was some new requirement we were made aware of and it required that people do things where I just sat down and wrote direct instructions, and they went out on the Web. Here's this new form that we're required to fill out by HIPAA. Here's the questions. Here's the things that must be found in your answers. That kind of thing, to expedite stuff.

So that's generally how it was handled. Personally, I did a lot of calling PIs who were making mistakes over and over again and talking to them to point out, look, this is a problem, it's showing up in the work you're doing. It would be much faster for everyone involved if you would just change it to this.

For people who just couldn't get it, I have occasionally appointed them as a member of the IRB (laughter) where you get to see how it works and see what questions people are asking and all that. So that I think has been helpful.

Often when I had a department that always seemed to have a problem with protocols and with doing things, I would just push and push and push until they would give me a member of their research team who would be a member of the IRB. And after about six months on the IRB the problems would start to go away.

***Tacey Ann Rosolowski, PhD***
00:18:22
Oh. Interesting.

***Linda S. Elting, DrPh***
00:18:24
Because researchers don't naturally think in terms of regulations. And more importantly, it's hard for them to think of solutions for the challenges. So once you've been on the IRB a while, you see what the solutions are, or the ways to avoid problems. So that was an effective way for me to work. Now that's partly because there are a limited number of departments that send tons of protocols to my IRB. Whereas with the clinical IRBs, they get them from all over the hospital. So that was more difficult for the clinical IRBs to implement. But for my IRB the majority of the full review protocols and the protocols with problems came from maybe five or six departments. So being sure that there was adequate representation from the different research teams was not hard to do.

***Tacey Ann Rosolowski, PhD***
00:19:24
And was the concentration of the difficulties in those departments a question of just individuals and accident? Or was it something about the style of thinking in that department that was really out of sync with thinking about regulations?

***Linda S. Elting, DrPh***
00:19:44
I think it was two things. It was first of all because when those departments first started—and those are all newer departments—when they first started—

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***Tacey Ann Rosolowski, PhD***
00:19:53
Do you feel comfortable naming the departments?

***Linda S. Elting, DrPh***
00:19:55
Oh yeah. It's the ones in cancer prevention. Things like behavioral science, epidemiology, the whole cancer prevention program, all of those things. Those were newer departments that came to the institution say in the '90s. And they brought social science research to this institution.

But they then began submitting their research to a clinical IRB, to a bunch of people who had never seen any social science research before. And so it was reviewed as if it was clinical research. That was very awkward. So that's why my IRB was eventually started, because the goal was to have excellent social science research, not social science that had been fit into a clinical science mold.

But the initial problems were that, that they were people talking two different languages. And the other part of that is that they came from a different environment of training. They came from colleges and universities, not from clinical practice. And so a lot of the things that they would submit didn't have the clinical piece, much appreciation for that. So you would have somebody who was a basic science researcher who wanted to draw fifty ccs of blood from a cancer patient. And we don't have any patients that can spare that amount of blood.

And there wasn't much of a—or people who wanted to do exercise interventions in folks who had had a bone marrow transplant who could hardly get up out of the bed because of lack of energy.

And so it was that melding of the clinical and social science piece that took some finesse. And it was something that every new researcher who came to the institution had to learn.

***Tacey Ann Rosolowski, PhD***
00:22:00
Yeah. Well, it's interesting, because it sounds as though the IRB provided another way for a researcher to perfect his or her craft, if you want to put it that way. To learn new—

***Linda S. Elting, DrPh***
00:22:13
Well, I would love to put it that way. They wouldn't. They would say they had been doing research successfully for years the other way. And we put in unnecessary barriers. And they may be right, some of the time. A lot of it had to do with expanding our knowledge of how to do this kind of research and what truly is low risk.

***Tacey Ann Rosolowski, PhD***
00:22:38
Yeah, but it sounds to me like the examples that you gave, for example trying to do an exercise program in a population that couldn't. I mean that's necessary information for a researcher. They're learning more about the population at that point.

***Linda S. Elting, DrPh***
00:22:50
That's true. And so those were the kinds of things that were issues that we had to deal with. The other thing that was really different about my IRB was that so much of our work was done in the community. It was not done inside these walls.

And that caused all kinds of issues. It was research that was done on people who were not our patients. So they don't have a medical record number. So they can't go into the whole big database of all the people who—so things like that that seem so basic and simple were huge problems to fix, because of the systems in the institution.

Protecting the research staff was something that we worried about in the institution as it was worried about by different groups of people. There's the employee health and safety people. And they work on things like needle sticks and those sorts of things inside the institution. But when you're drawing blood from families in the Valley to do epidemiologic studies and one of your staff gets a needle stick, what do you do? Those are the kinds of issues that I had to write new policies for. We had to develop new kinds of procedures for those studies.

What do you do for a sociologist who's going to be traveling with seasonal farmworkers around the state of Texas, entering information in a database on a computer about how they're doing? And how do you protect them and the subjects when the people who hire them don't necessarily want people to know about their occupational exposures to pesticides? What do you do when you get the answer that this bunch of people were exposed to these pesticides? How do you ensure you can find them again if they've been exposed to something bad?

All of those kinds of issues were new to the institution. They were things that had been dealt with by other institutions, primarily universities, but not by hospitals like MD Anderson. So that was the cool part about the job, because it was so new. It's creating a whole new thing and a way to do things. That was the really exciting part.

***Tacey Ann Rosolowski, PhD***
00:25:49
I can see where it's also complementing too the work that you were doing at the same time in the effect of policy decisions. There's just a real nice intellectual environment that you were creating at that time for yourself.

***Linda S. Elting, DrPh***
00:26:03
Yeah. But because it was new, and because I didn't necessarily think I had the expertise to do it all, I think I did a good job of engaging the researchers themselves and in just saying, "We've never done this before at MD Anderson. We need to write some policies about how to do it well. I know what the regulations say. You know what you need to do to do the research. Let's sit down and figure out how we can make this work with the minimum amount of problems."

And so I tried very hard to keep good working relationships and good partnerships with the investigators who routinely sent their work through the IRB so that we could handle these problems when they came up quickly and efficiently.

Because usually it was like that. I would get a call. It's always on Friday afternoon. So-and-so has a research assistant who's in Brownsville and they're doing the protocol and they're drawing blood and it's an anonymous study, they're just doing fifty people in this area. And they've got a needle stick. Which means from our perspective as a health care provider, as a hospital, we need to have that subject tested for HIV. But they never agreed to that before the study.

And then if it's positive, what do you do with them? Because they need help immediately if they're positive. So that's why it was such a good job. It was very cool. Because there was always something weird happening. Somebody figured out a new way to have a problem doing really straightforward research.

***Tacey Ann Rosolowski, PhD***
00:27:58
Now you mentioned at the end of our time together last time, and it was actually off record, you said that unlike a lot of people at the institution, social sciences people like IRBs. Or maybe I misunderstood your implication.

***Linda S. Elting, DrPh***
00:28:13
I think they liked our IRB, because they were part of it.

***Tacey Ann Rosolowski, PhD***
00:28:18
And so this is the close working relationship.

***Linda S. Elting, DrPh***
00:28:19
Yeah. Because most of what they did and sent through the IRB would be considered low risk. So all of this rigmarole about protecting the subjects, while absolutely still true, was less a problem. And so the goal often for low risk research was to minimize the burden to the researchers for really good research that put people at very low risk.

And that's completely different than the clinical IRBs where they're irradiating people and giving them poisons. So the subject is number one, and to heck with the researchers, we're sorry it's hard, just do it. And that's appropriate. But in low risk research where you're doing surveys or you're drawing a small amount of blood and it's going to be anonymous, that's very very low risk. And so we worked hard to create new ways to reduce the barriers. And we created new policies to allow people to do things with verbal consent. Verbal consent was never used before I was the chair. No one ever used verbal consent.

But we used verbal consent routinely in a lot of these studies. It actually lowers the risk to the subjects because you don't have to take their name. And that was interesting too, because here are your regulations, you know you have to follow them, we all do. But here's the requirements of the research. Now how can we do this? Reduce the barriers but still be compliant with the spirit of the law.

And so that was another good thing about the job, because we did a lot of that. We did a lot of creating good solutions that reduced time and effort.

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Chapter **20**

## *Adding Biostatistician to Research Protocols Raises the Bar of MD Anderson Research*

## B: Institutional Processes;

**Story Codes**
B: Institutional Processes;
B: MD Anderson Culture;
C: Research, Care, and Education;

***Tacey Ann Rosolowski, PhD***
00:30:24
I wanted to also ask you a related question. Or it seems related to me. You can tell me about timing of this. There was a period at MD Anderson when all protocols had to have a biostatistician as part of it. And I was wondering when about that happened, when that became a requirement.

***Linda S. Elting, DrPh***
00:30:50
When Don Berry walked in the door. (laughter)

***Tacey Ann Rosolowski, PhD***
00:30:53
About what year was that?

***Linda S. Elting, DrPh***
00:31:00
I don't know. I guess late '90s. He was recruited to be head of Biostatistics. He's an internationally renowned biostatistician. And it was a real coup to bring him here to lead that department because he was so famous. And one of the things we all understood was part of his agreement with the people who hired him was that biostatisticians were going to be a part of all of the studies, and that the bar of statistical analysis at MD Anderson was going to be raised.

And he I think asked for enough people who were paid by the institution so that every protocol could have a statistician even if they couldn't afford to defray the salary for one. And it was—

***Tacey Ann Rosolowski, PhD***
00:32:04
Now just so it's absolutely clear, why did he insist on that? Why was that such an important thing to make happen at MD Anderson?

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***Linda S. Elting, DrPh***
00:32:18
Well, I think because there's so much of the medical literature where huge amounts of money have been spent to do a study and the results are really not conclusive because the statistical plan or the analysis that was done was inadequate. And the other piece of that was that the statistical analysis, if it was supplied as part of a study that was being sponsored by a pharmaceutical company, would have been planned by the pharmaceutical company. And I believe there are those who perceive that as a conflict of interest, even though typically it wasn't. I think it's pretty rare to find a company that was trying to skew the results through the statistical plan. It's not at all unusual to find analyses that are skewed on the back end where they're doing the analysis and reporting. But I think the goal was to raise the science to a point where we're doing important studies that have an impact on care because they were planned right, conducted right, and reported right.

And I think Don was one of those people who was creating innovations in design, in how things were designed, in how things were analyzed. And because he was so focused on that, he was also really focused on things that we were doing because we'd been doing them that way for ten decades and they really weren't turning out the kind of results we could use. There were better ways to do things.

And I think he came to MD Anderson because we do so many more studies than anybody else. And if he could implement his way of doing things, he could have a big impact on how science was done in cancer.

***Tacey Ann Rosolowski, PhD***
00:34:24
So what was your part in all of this when he came? How were you involved in changing all that?

***Linda S. Elting, DrPh***
00:34:34
I wasn't really. I was in the department as I told you because I had to find a department for us to be in.

***Tacey Ann Rosolowski, PhD***
00:34:42
So what was your reaction when you heard that this was going to be the new way of operating?

***Linda S. Elting, DrPh***
00:34:50
Well, I agreed with it as soon as I heard it. My only concern—as a faculty member, when I first heard this, I thought oh no, what if I'm doing a study where I can't afford a statistician. It's already started and I don't have it budgeted. Or I'm doing it with the leftover funds from something else, and I'll never be able to afford a statistician for every study. So I was a little anxious about that, and lots of people were.

But I think when it became clear that you walk up to the door and you ask them for help and they give you help whether you have money or not was really attractive. And while there was some disagreement up front, once people started doing that and knocking on the door, they discovered that they could actually turn over that whole section of the protocol, and that whole section of the grant, to that department. And it came out and it would improve your score with the grant reviewers. And it made things easier.

Now it did mean that there was another week added in to get those answers back. And there were people who did research in the fast lane who were really experienced who could write those statistical sections themselves quickly who were slowed down because that happened. But that was the minority of people. Most people I think were delighted to have the help.
And the only problem it really meant for most people was in slowing the process just a little bit. Because most of the protocol had to be done before the statistician could look at it and write it and determine that. But I think it was a wonderful change. I think it cost the institution a bundle of money initially to create all those new positions for statisticians and start providing that as a service to faculty in the institution, whereas before it was just a few statisticians in the department, and if you didn't have grant money to support their salary, then they didn't work with you. So that was a huge commitment on the part of the institution but I think it was worth every penny.

***Tacey Ann Rosolowski, PhD***
00:37:23
And obviously it's still in place.

***Linda S. Elting, DrPh***
00:37:25
Oh yes.

***Tacey Ann Rosolowski, PhD***
00:37:27
And is it growing now? It seems like with big data and—

***Linda S. Elting, DrPh***
00:37:30
I think it's not so much growing as it is realigning. I think the core people who do statistical designs for clinical trials is not so much growing as the people who are also doing the big data or doing bioinformatics or genomics and that sort of thing. So statisticians with different kind of specialties are increasing in number very rapidly.

***Tacey Ann Rosolowski, PhD***
00:38:02
Interesting. I was out of questions in this topic area with your work on the IRBs, other administrative things. Was there anything that I've missed in that area? Some contributions you've made that we haven't covered?

***Linda S. Elting, DrPh***
00:38:29
I don't think so.

Interview Session: 04
Interview Date: April 23, 2015

Chapter **21**
## *A View of Women's Careers at MD Anderson*
## B: Diversity Issues;

**Story Codes**
A: Professional Path;
A: Experiences Related to Gender, Race, Ethnicity;
A: Critical Perspectives;
B: Critical Perspectives on MD Anderson;
B: Gender, Race, Ethnicity, Religion;
C: Women and Minorities at Work;
C: Leadership;
C: Mentoring;
C: Obstacles, Challenges;
C: Experiences of Injustice, Bias;

***Tacey Ann Rosolowski, PhD***
00:38:30
OK. Well, I wanted to shift topics a little bit and talk about the issue of diversity at the institution, your experience as a woman coming up through the ranks, and your observations about women at the institution over the past decades.

***Linda S. Elting, DrPh***
00:38:55
I guess I would say as a caveat first in many situations where I felt that I didn't get the respect or couldn't find the credibility or didn't get appointed to things, I often interpreted those situations more as my having been known to everyone as a classified employee and a nurse rather than my being a woman. I think I was aware as I came up that there weren't any women (laughter) in the senior ranks. And I wasn't promoted to professor until I don't remember when. Late '90s or early 2000s. But I was only the forty something full professor who was a woman in the history of the hospital.

So I think at that point I had begun to recognize both that there was an issue in medicine and science in general and that there was an absence of women in high leadership positions in the institution and that I felt it was a concern to the people at the top, because that was a time when they brought in Margaret Kripke [Oral History Interview] to head a department. Then she became whatever her title was. It wasn't provost, but it was that job.

***Tacey Ann Rosolowski, PhD***
00:40:46
VP of Academic Affairs.

***Linda S. Elting, DrPh***
00:40:47
Yeah, something like that. And there was a lot of lip service and a lot of concern about this issue from the top of the institution. And I always thought that was a positive thing. What didn't happen or wasn't happening was that that same concern and awareness was raised in the intermediate management level, the department chairs, the clinic heads, those sorts of people. And I think it's just because there were so many more of them that you would expect in a much bigger group to find a few people who had heads in the sand or a few people who had true prejudices or those sorts of things.

So I guess about the time I was becoming a senior person I think I would say I felt like the institution officially had a concern about providing opportunities for women and opportunities for people of color, but that it wasn't necessarily trickling down into the level of people who do the everyday job of mentoring, promoting, encouraging, and opening doors.

And I don't think that really happened until Liz Travis [oral history interview] started the programs where she started just—she was on every single search committee. She reviewed every single list of people who were getting merit increases from every department every year, and started pointing out to people well, look, these are all boys. You want a chairman for a department of disparities. All of your applicants are white males. What's the deal? So I think when that started it became an issue more to the forefront in everybody's mind.

***Tacey Ann Rosolowski, PhD***
00:43:09
Were you involved at all in Women Faculty Programs in the early—

***Linda S. Elting, DrPh***
00:43:15
No.

***Tacey Ann Rosolowski, PhD***
00:43:15
What was the reason for that?

***Linda S. Elting, DrPh***
00:43:18
I think I was too busy. (laughter) I was just really busy trying to—well, I will say this, and it probably sounds terrible. Maybe I'll decide you shouldn't tell anybody this. When they started the Women Faculty Organization, I did not want to attend or be seen there because I didn't want to be a member of the women's auxiliary. I wanted to be a member of the good old boys' network. And it took me a while to decide that you could go there and still be accepted. I didn't want to be one of those people who always complained that they didn't get the job because they were a woman.

***Tacey Ann Rosolowski, PhD***
00:44:06
Women have a lot of complex responses to other women who are taking an active role in that area. I mean I remember my own complex reactions in other institutions and so I understand your reaction.

***Linda S. Elting, DrPh***
00:44:24
Well, I thought it was great for anybody who wanted to do that. But I wasn't worried about what other women thought. I didn't need to be. None of them were bosses. (laughter) What I needed to be worried about was what men thought. And I didn't want a negative reaction from them. So I know that there was a point where I was not getting opportunities and where I was being held back because my chairman didn't think a woman's career was important as a man's.

***Tacey Ann Rosolowski, PhD***
00:45:07
Wow.

***Linda S. Elting, DrPh***
00:45:10
And I don't think I realized how bad it was until I got out and had a chairman who really wanted me to succeed. And I recognized that that was going on and—

***Tacey Ann Rosolowski, PhD***
00:45:29
What do you think prevented you from recognizing it in the moment?

***Linda S. Elting, DrPh***
00:45:33
Well, for one thing, I idolized him and his contribution to science and to patient care. For another thing, I was junior. I expected that I would be treated like a junior. I was a science person in a clinical department where physicians always got first choice at everything and all the best opportunities. And so all of those things stacked up against having opportunities.

***Tacey Ann Rosolowski, PhD***
00:46:04
Right. And a rationale that it wasn't just because you were a woman.

***Linda S. Elting, DrPh***
00:46:08
Yeah. So I think that's what it was. But once I got out of there it was like a new job. All of a sudden people appointed me to committees and they valued the work I did on those committees and doors got opened and I met so many more people around the institution and outside as well. So I guess that's a fair appraisal of my experience. Things are very different now.

***Tacey Ann Rosolowski, PhD***
00:46:53
One thing that's interested me over the course of our sessions is that when you've talked about—you've presented many of your decisions to take on challenges as a very intentional career move. Is that something that you felt in the moment that you were doing this? Or is that in retrospect that you realized you were gravitating?

***Linda S. Elting, DrPh***
00:47:19
No. Most of them were intentional career moves. Things like when I said I would chair the new IRB. I didn't think I could do that job. I had no formal training. I had no informal training. (laughter) I had nothing.

***Tacey Ann Rosolowski, PhD***
00:47:39
Flying by the seat of our pants here.

***Linda S. Elting, DrPh***
00:47:41
I'll show you my training. It's this little book right here. They gave me this book, which is the federal regulations, and they said, "Here, you can be the IRB chair." (laughter) But I think I realized, and I think I was right, they were the right decisions. I realized in all of those situations where I didn't feel that I had the training or experience or maybe even the skills to do those jobs that I wouldn't get another chance. Opportunities are few and far between. And I can say in retrospect particularly at that point if you're a woman, and particularly if you're not a physician. And so when you get those opportunities you have to take them.

It's not a good time or you don't have the skills, that's too bad. You just do it. You have to do it then, because you won't get that opportunity again.

***Tacey Ann Rosolowski, PhD***
00:48:47
You said there have been a lot of changes. Where do you see things now in terms of the environment for women and representation of women at various levels of the institution?

***Linda S. Elting, DrPh***
00:49:06
Just from my perspective, I think women have an equal chance of getting department chair jobs. I don't think they have an equal chance of getting higher than that. And to some extent that's because the pool of people is small. But additionally I think that the decisions about who gets executive positions has as much to do with skill and training and ability as it has to do with putting together a team that can work comfortably together. And because I think that is taken into a lot of consideration, when the team is already men, they're not necessarily comfortable with a woman in a role.

So I think that equally qualified people who are men and women, the men will be chosen for those. There are still women who get those top positions sometimes because they're the best person, and everybody knows it. But I think in the situation where it's a toss-up, at the executive level, men get the jobs. And I think if the decision is made external to this institution, external to academia, like by boards of regents, they never get the job. (laughter) That's just if it's made by a bunch of people who run companies for a living. They choose people who look like them and who talk like them and express themselves the same way, who have similar goals and objectives. And so when the last president was chosen there was a short list that was published and everyone, 100% of every person who made a comment, said that the woman

on the list was a token, because there was never a chance a woman would be chosen for that job to head this institution.

And it wasn't a choice made in an academic way at all. It was made external to the institution. So I'm not sure there's an opportunity for a woman president of MD Anderson in the near future.

***Tacey Ann Rosolowski, PhD***
00:51:55
Even at the executive table right now.

***Linda S. Elting, DrPh***
00:51:57
Or a woman chancellor of the University of Texas either. (laughter) But I do believe that—sorry.

***Tacey Ann Rosolowski, PhD***
00:52:06
That's all right. Do you need to take—

***Linda S. Elting, DrPh***
00:52:08
No. I do believe that in terms of the academic selection like for department chairmen and things like that, I think women are seriously considered in exactly the same criteria as men.

***Tacey Ann Rosolowski, PhD***
00:52:27
You mentioned that the selection committees want to bring in people that have the same goals and ways of expressing themselves. Are there ways in which women have different goals or have different ways of expressing themselves that makes them—the underlying question is do women bring something different to a leadership table. Always a hard question to answer.

***Linda S. Elting, DrPh***
00:52:51
Yeah, that's a tough question. I guess what I would say is that in my experience of women in my circle and in the general people I know there aren't very many women scientists or physicians who think about providing care, doing science, developing new drugs from a for-profit perspective. Most of the women I know who do science and who do medicine didn't go into it for that reason. Now they recognize that at some point we need to get new treatments into use. That means if it's a new drug it has to be marketed.

But I don't think there are that many women that I know who are doing science who think about it that much. And while I think women are equally entrepreneurial about their careers and their programs, that whole business perspective of turning this into a profit is not something that I ever hear women talk about. It's just real rare.

Whereas I have a lot of colleagues who are men, it's as if they're multitasking in their brains. And at the same time they're thinking about how to design this drug, they're thinking about how it ought to be advertised and marketed, and about which of the pharmaceutical companies would be best to do this. And I think that's the mentality that businesspeople who are making selections of executives, I think that's what they look for. Whether it's right or wrong I don't know. But I never hear women talking about bringing what they do to market.

***Tacey Ann Rosolowski, PhD***
00:54:58
Interesting.

***Linda S. Elting, DrPh***
00:54:58
Maybe I just have weird friends. (laughter) But I know when I talk in those terms, when I say something to someone like but this is such a small niche in the general scheme of things and how would we ever get a drug company interested, or why would a drug company ever invest, or anybody invest, in something so small, you get this strange look, because it's more a notion of science for the sake of science, because every time we learn more it gets us closer to important answers. That kind of a focus that's somewhat different.

***Tacey Ann Rosolowski, PhD***
00:55:43
Not contextualizing it so much in the business. But you obviously have that perspective, you think about those issues.

***Linda S. Elting, DrPh***
00:55:50
I learned that perspective though. It's not one that came to me naturally. It's one that I became aware of in working with drug companies that were developing drugs. I became aware that we weren't ever going to get anything studied or get important new developments if somebody who was in the for-profit world wasn't willing to invest their dollars.

***Tacey Ann Rosolowski, PhD***
00:56:19
So do you think that from a mentoring perspective, mentoring of young researchers, mentoring of young faculty, women need to think about expanding their focus to take this in? How important is that?

***Linda S. Elting, DrPh***
00:56:37
It depends on where you want to take your career. But it's difficult to learn those things, because most of the drug company people are also men, and so they don't seek out women to ask them questions. And you start to get that perspective when you're appointed to advisory boards or those sorts of things. And people appoint their friends to advisory boards, the people they're comfortable with. And so you learn those skills and perspectives from the people who do that. And if you don't get your foot in the door you never get that perspective.

Now people who come from economics and business backgrounds have that perspective. But we don't mix with them so much when we're in science and medicine. And so expanding that focus is difficult. The way I got it was just in interfacing with drug company people. And they needed my kind of information, my kind of work. And I didn't understand why. I had to get them to explain to me what is it that I do that interests you and why, and how do you use that.

***Tacey Ann Rosolowski, PhD***
00:57:50
And what did they say?

***Linda S. Elting, DrPh***
00:57:52
My first interactions with them was when they would come to me and say, "Well, we have this new compound we've developed. But we have to prove to the FDA that it's needed." And so they needed the epidemiologic background work done at the population level to show how big a problem it is and how much it costs and what impact could it have if it worked and those sorts of things. And from interacting with the drug company people at that level, often the marketing people at that level, that's where you learn to look at it from a different perspective. So it's a tough thing. It would be a hard thing to advise someone to do because it's hard to say how to do it. How would you pick that up? It's hands on.

***Tacey Ann Rosolowski, PhD***
00:58:53
We're already at five minutes after 3:00 and I don't want to take you over. I have a few more questions. And I don't know if you want to do that today or if you'd like me to do another session next week or the week ager. Whatever works best for you.

***Linda S. Elting, DrPh***
00:59:07
I probably need to finish up today.

***Tacey Ann Rosolowski, PhD***
00:59:08
OK. Because I figure you're a very busy person. (laughter)

***Linda S. Elting, DrPh***
00:59:12
Well, I have a grant application that's going to be due. So I'm starting to clear my calendar. (laughter)

***Tacey Ann Rosolowski, PhD***
00:59:19
Yes. All right. Well, why don't we finish up for today? And I want to thank you for your time. And I'm turning off the recorder.

***Linda S. Elting, DrPh***
00:59:27
Wait. No. I need to finish up today rather than future. (laughter)

***Tacey Ann Rosolowski, PhD***
00:59:29
Oh, you want to finish the questions. Oh, OK. Excellent, excellent. I'm glad we clarified that. No, that works out great for me too.

Interview Session: 04
Interview Date: April 23, 2015

## Segment 22
## *Cultivating Talented People Willing to Dedicate Themselves to a Research Life*
## A: Researcher;

**Story Codes**
C: Leadership;
C: Mentoring;
C: The Life and Dedication of Clinicians and Researchers;
C: On Texas and Texans;
C: Women and Minorities at Work;

***Tacey Ann Rosolowski, PhD***
00:59:29
Well, I wanted to ask you. In terms of you passing on a leadership legacy to people, to junior faculty, what are some of the strategies that you've used in your own commitment to bringing women and a more diverse population into this field?

***Linda S. Elting, DrPh***
01:00:04
I will say honestly that I don't work hard to find women or minority people of any kind. I just look for talented people. And what I try to do is help junior people discover whether this is really what they want. There are too many people who think they want to be principal investigators and want to be full professors, and they want to do all of this, and they make those decisions and set those goals having no experience of what the life is really like, and having no notion that there are other things you could do that are equally important contributions and you don't have to have that life.

***Tacey Ann Rosolowski, PhD***
01:01:00
What are you referring to when you say that life?

***Linda S. Elting, DrPh***
01:01:03
The sixty to seventy hours a week, seven days a week, no vacations, everything hanging in the balance on reviews that you get from grants. That's an extreme—particularly when you're an associate professor, and that's usually when you have family, children that really need you. And there just is no time, none, to establish an academic career is just an all-time-consuming thing. You can't do it in fewer than sixty hours a week. And lots of them are ninety-hour weeks. And unfortunately it's often seventy hours a week for many weeks in a row. And then less. And on average it may be sixty hours a week. But there are months when you never do anything but work and sleep.

And there are many times when you spend as much time worrying about money as you do thinking science. And I think we don't train graduate students at all in any of the skills that are needed to do that. They don't learn how to write grants. (laughter) They don't hardly know how to write, in my experience.

And so finding people. And then weeding out people who really have no promise or really don't have the drive to get there I consider an important job of senior faculty.

It's not about opening doors for as many people as possible and seeing who walks through. That's too time-consuming, not only my time but theirs. Because it takes a while to fail at academics. So I think that identifying the people who are capable of making it and then the ones additionally who are committed enough to make it is a hard job. But it's the most important first job.

And then I think that's a long term commitment. Somebody who has both of those characteristics is somebody you invest in for a decade, getting them onto committees, getting them into organizations outside the institution. Having them meet people all around the country and around the world. Opening doors, giving them ideas of your own so they can have success early on.

Those are the kinds of things it takes to make the next generation of successful people. And so I never have more than one or two people I work with. And now that I'm retired I only work with one person at a time. Because it takes a lot of time to mold a faculty member. I'm not saying you can't get there without that. I certainly had no one who mentored me like that. But I also got promoted slowly and moved through the ranks slowly because so much of that I had to learn on my own.

***Tacey Ann Rosolowski, PhD***
01:04:56
Is there anything else that you wanted to say about education, mentoring, developing leadership skills?

***Linda S. Elting, DrPh***
01:05:08
I don't think so. I think it's a bigger package of skills than most people perceive. I think it involves presentation skills, short elevator talk skills, formal professional presentations, how to tell your story on the telephone. How to raise money. Those sorts of notions. How to sell your idea to a for-profit company. All of those things I think are very important.

And then I guess the biggest thing that's gender-specific that I tell women is that it's not at all unusual for women to get appointed to be secretary of an organization or get appointed to committees that are low profile but huge amount of work. Things that have to get done, they need a person who is efficient and will get the work done and will work hard and do it efficiently. And there are an awful lot of women who spend too much of their career doing those jobs and they don't get any credit for it. It doesn't move them forward.

So I guess the one thing that I do look at real carefully when I work with younger women is to ensure that they don't end up being the workhorse of the institution who is never on the podium. That's a real danger for a really competent person.

And it's even worse for someone who isn't assertive and outgoing, because they gravitate to those kinds of jobs. So I guess that's the—and I will say that it's very common in women. Particularly foreign-born women. I've had students who walked behind me because they were taught to do that. They grew up doing that. It's second nature. And things like that will sink a career. And it's such a silly thing to have a career damaged over.

So I have been accused of being culturally insensitive. And I'm not. They can walk behind everything, everyone they want, on the street. (laughter) But in these halls, I have insisted that they change. I recognize they shouldn't have to do that. And I don't disrespect them for doing it.

I appreciate the respect they show to other people when they do. But it will sink a talented person's career. So maybe there'll be a time when we don't have to be concerned about things like that.

But those sorts of things, or sounding when you talk like you're a hick, the way you pronounce words, the way you express yourself, your diction, all of those things unfortunately can really sink your career.

***Tacey Ann Rosolowski, PhD***
01:08:50
Or always making statements that sound like a question.

***Linda S. Elting, DrPh***
01:08:54
Oh yes. (laughter)

***Tacey Ann Rosolowski, PhD***
01:08:56
Am I right? Am I right?

***Linda S. Elting, DrPh***
01:08:57
Am I right?

***Tacey Ann Rosolowski, PhD***
01:08:58
Do you like me? Do you like me?

***Linda S. Elting, DrPh***
01:09:01
Yes. That's correct. (laughter) I agree completely.

***Tacey Ann Rosolowski, PhD***
01:09:09
Very interesting. Is there anything else you wanted to add on that subject?

***Linda S. Elting, DrPh***
01:09:14
I don't think so.

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***Tacey Ann Rosolowski, PhD***
01:09:16
I'm really glad you covered that. I mean I think one of the uses we hope to put this to is with Women Faculty Programs, faculty development. I think these kinds of statements will be very very important for people to hear.

Interview Session: 04
Interview Date: April 23, 2015

Chapter **23**
## *Projects Remaining Before Retirement*
## A: View on Career and Accomplishments;

**Story Codes**
A: Career and Accomplishments;
A: Contributions;
B: MD Anderson History;
B: MD Anderson Impact;
B: MD Anderson Culture;
C: Patients, Treatment, Survivors;
C: Personal Reflections, Memories of MD Anderson;
C: MD Anderson Past;
B: Discovery and Success;
C: Patients;
C: Offering Care, Compassion, Help;
C: This is MD Anderson;

***Tacey Ann Rosolowski, PhD***

Well, I wanted to just ask some final questions. What are you planning on doing in your remaining time here is the first.

***Linda S. Elting, DrPh***
01:09:45
I'm planning on spending most of my time writing and doing research. I'm trying to spend less and less and less time doing administrative anything. So I'm trying to pull back from being principal investigator on big projects. I'd rather be a collaborator so I can do my writing and not have to do annual progress reports and budgets and all that other stuff.

I'm not doing much traveling. It takes away from the time I have to write and focus. I'm really focused on trying to fill gaps for cancer patients in Texas. It's been a desire of mine to focus on Texas and to look at where Texas is unique, where there are gaps in what we provide, and where we can be a model for other places. So that's what I'm trying to do.

Texas is different in many respects from other states demographically, in size, in the distribution of health care facilities, in the politics and the policies that are in place or lack of same. And so it's an interesting contrast to other states in the country. So I think it's scientifically interesting but it's a hometown commitment sort of idea that really interests me. So that's where I'm focusing currently.

***Tacey Ann Rosolowski, PhD***
01:11:40
How do you anticipate that this work will be a model outside of the state?

***Linda S. Elting, DrPh***
01:11:46
Well, there are things that—you'll be surprised to hear this because most people say Texas does everything wrong with health care. But there are things we do right. (laughter) There are things that we do right. There are things that we try that other people don't have the guts to try.

***Tacey Ann Rosolowski, PhD***
01:12:07
Such as?

***Linda S. Elting, DrPh***
01:12:07
So there was this program that was highly touted to really improve things. And it was a model that was being suggested for use in Medicaid and delivering Medicaid services. And it was a primary care physician case manager notion.

And the feeling was that if you had a primary care provider who was paid money to manage the care of a person, you would have better and more efficient use of resources, you'd have shorter time periods in getting from one kind of provider to another, and it would work well.

And so you could imagine theoretically that that kind of a model would work well for a state that had lots of rural areas where HMOs might not be interested in serving those but where a primary care provider in a small town could be paid to manage patients in that area who had complex illnesses and required a lot of referral to different specialists, and where that kind of an approach would work. And it was highly touted, still is.

Lots of states around the country are thinking about doing that for their Medicaid programs. Well, Texas tried it, and tried it first. And it doesn't make any difference. It just costs more money.

So there are things that Texas tries because we're different or because demographically we're different, or because we don't want to spend money on what everybody else says is the best way. And sometimes they work and sometimes they don't.

But any time you get a positive or a negative answer, it's a benefit to other people who might want to try or need not to try.

So there are programs like that that I have an interest in working on. I'm very interested in trying to examine carefully how Texas's approach to Medicaid either is better or worse than the approach to Medicaid in the Affordable Care Act.

And so in order to do that we need to develop data sources about Texas that can be examined and compared to others. And we need to put together teams that can look at it objectively instead of politically and provide the kind of information that can inform good decision making. And so that's where I would like to focus my efforts.

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***Tacey Ann Rosolowski, PhD***
01:15:10
As you take account of what you've done at the institution, what are some of the things you're most gratified to have completed?

***Linda S. Elting, DrPh***
01:15:28
That's a hard question. I'm very proud of the work I did on the IRB. That probably comes through in what I say and the way I say it. I was the first woman chair (laughter) of an IRB at MD Anderson.

I'm very proud of that. That was something that—it's a system that works, and I had a lot to do with creating it. I'm very proud of that.

A lot of the work that I did early in my career, even some of the work that I did when I was not the principal investigator, just seemed, OK, we're going to develop this, and it's going to be better for patients and all that. And I guess I never highly valued it until I realized that those drugs that I studied back then were making such a difference in my mother's life and in her experience of cancer.

She takes some supportive care drugs every day that I helped bring to market. Some new first-in-class drugs that we tested here first and produced the information, a lot of the cost information that we did, as well as the clinical information that has meant that those drugs are available to people. And it's really hit home for me personally since I have seen what a difference it's made in my mother's experience of cancer. So I guess at this point in my life I feel very gratified to have been part of that.

I guess the thing that is most gratifying, and it's hard to express because it's not real specific, is that when I came to MD Anderson almost everybody died. All the patients died. Mostly from infections. And that doesn't happen anymore. Certainly I'm not the only one. Lots of people contributed more than I did. But a lot of the work that we did decades ago made it possible to do the kinds of studies in treatment that we have done.

And some of those have been very successful. So just being part of the organization that made those early steps. Those were really hard days. None of our patients survived. And most of them died here with us. We met them, we got to know them, we knew their families, and then they died before our eyes. That was a very difficult place to work. Lots of people couldn't do it. Those of us who stayed, we helped each other through those days (laughter) when most people died. But I'm very proud of the work we all did together and how far it has enabled everybody to come since those early days when so many people died.

I think at MD Anderson I was one of the first people who looked at this problem from a population perspective. It was a patient care and a clinical trial factory. And expanding into the population and beginning to look at those sorts of questions, I wouldn't say it's well integrated yet. But it is becoming a more and more important part of what we do. And I think it will be increasingly important as MD Anderson gets more and more affiliated practices and we develop the ability to measure the outcomes of those institutions and to begin to pool data.

But the whole notion of a population perspective is not one that was quick to come to MD Anderson. And I'm gratified by how far it's come. There was a time when I thought we would never do any of it, or I would be the only person (laughter) or one of five people who would take that look at things. And so I'm glad we're moving in that direction, largely because there's an awful lot good that happens here that is never translated to the community. I don't think we know why. I'm not sure we even know what the things are that cause it to be better here. But what we do know is that it's not just developing a new drug. Because we've done that and it doesn't get translated to the community, to everybody.

So there's something about what we do or the way we do it here, and I'm sure it's true of other large cancer centers as well, that we need to learn how to transfer into the community. And we can only do that if we study both MD Anderson and the community. And so I think taking a more population perspective is a way to start to do that.

Interview Session: 04
Interview Date: April 23, 2015

Chapter **24**
## *Overview of MD Anderson Presidents and the Effects of Rapid Growth*
## B: Institutional Change;

**Story Codes**
A: Critical Perspectives;
C: Portraits;
B: MD Anderson History;
B: Growth and/or Change;
B: The MD Anderson Brand, Reputation;
B: Institutional Mission and Values;
B: MD Anderson Culture;
C: Understanding the Institution;

***Tacey Ann Rosolowski, PhD***
01:21:15
I wonder if you'd comment on changes that have taken place. We've got a new administration in the past few years and MD Anderson has gone through some shifts in perspective. How do you see those coalescing?

***Linda S. Elting, DrPh***
01:21:33
I've seen a lot of those shifts in almost forty years. I've seen a big change in the presidency. I've been here for all of the presidents. Dr. Clark was a patient care guru. That was his highest priority. That's what he pushed. And so the institution was a very different place when he was the president. When Dr. LeMaistre came here, it's hard to characterize his presidency. He was not real engaged in patient care. Nor was he engaged in research. He was a real ambassador president to the legislature, to donors, and he turned—being a Houstonian, I grew up hearing if you go to MD Anderson, you go there to die, and they treat you like a lab rat. He transformed this institution from the mad scientist laboratory place to the jewel in the crown for UT. I don't know how he did it exactly. (laughter) Although I think it had to do with a whole lot of time and effort spent with referring physicians throughout the state and developing those relationships. And that took MD Anderson to another level. Although I don't think we need that kind of person again, because he did that hard job to get us from the Frankenstein's lab to a viable place to go for your health care and a facility that the university was proud of.

And then when Dr. LeMaistre came, he was really the first—when Dr. Mendelsohn came, he was the first president who was a research dude. Highly respected clinician. In fact somebody told me when he was coming here who had been with him at Memorial Sloan Kettering he was the best clinical teacher they'd ever seen. And yet he was sort of the first research dude who took the top job and began the process of transforming this into a highly respected research institution, not just a place with so many patients, they can test any drug and get the clinical trial done, but a place where you do real science, and where real scientists come as a career. And I think that's probably where DePinho is as well, on that upswing of moving MD Anderson into new areas of science.

I can't imagine where the next president will go. It's hard to see where the gap will be. But my guess is that we're going to have to figure out a way to be a research institution and deliver health care at the same time, because in this long history there have been times when patient care was carrying research, and there have been times when we cut patient care jobs and the only safe jobs were on grants. There have been times when we were selling ourselves as the research institution of the future, and times when we were saying, "Send us all of your early-stage breast cancer patients."

I think we're going to have go figure out at some point how big is big enough, and how do we make both of those things manageable, so that we can do a great job.

I think much of what you've seen in the newspapers lately is as much a symptom of being big and growing fast as it is a change in leadership. I think it's quite possible we would have had all the issues in patient care that we have today with any of the final four nominees for president. It's just it's gotten really big really fast. Reimbursement has gone down a lot really fast. And it's hard to know how to run an institution and how to be that nimble. And the bigger we get, the harder the ship is to turn.

So I think really the next big question that we face as an institution is how big is big enough, when do we say, "OK, we're not going to do this part of the job anymore, we're going to focus here." That's probably the hardest question I've ever thought of.

And I don't think anyone wants to address it (laughter) but most of I think what we're experiencing now is that maybe you can't be all things to all people. And we've gotten so big that we can't almost function. The people here are the same as they were twenty years ago. We still all respect each other. We respect each other, including the people who clean the toilets and wash the floors. Everybody is important in this job of taking care of people with cancer. But there's a point when you just lose control of that whole thing, where there's no longer a cohesive feel.

And I think we're past it. I think we've lost that feeling of working together. And we've become a bunch of silos spread over many buildings. And it's becoming more and more difficult to manage the quality of care and ensure the quality of research because we've got so many managers and so many Indians and chiefs. And I think that is a bigger challenge today than the research agenda. I'm probably the only person who thinks that. (laughter) Certainly the research agenda appears to be the highest priority today, along with how to expand our affiliate organizations.

But I think a much more important question to who we are and what we are and what we do is what should we be in terms of size, when do we call it quits and say, "We're not going to treat early-stage breast cancer anymore, we made the discoveries, we figured out how to do this, it's done really well in the community, let's encourage people to go there. Let's invest in working on cancer X where we don't know what to do and we don't know how to take care of people." Now I will say that's an opinion left over from many years ago. There was a time when we wouldn't treat our own patients' high blood pressure because we believed our resources should be dedicated to the goal of finding cures.

And there was a time when we would routinely tell people, "You just need to have a lumpectomy done in your home city." (laughter) So I think that's the hardest question we face. It's the one we address the least. We don't talk about it as a community here in the institution. We don't talk about it in our departments. We seem to—we have the church mentality. Churches say, "If you're not growing you're dying." And that's how we behave.

And I'm not sure that's correct. Look at the Farber. The Farber is one of the smallest places in the world. And yet they've done marvelous work. And it's because they're very focused. And so we've tried to be all things to all people. And unfortunately I don't think we can do that. So I consider that our biggest challenge. I think that's the challenge that either this president or the next one needs to take on, or this executive and the next one. And it's the one I think we are least willing to address.

***Tacey Ann Rosolowski, PhD***
01:31:08
Is there anything else you'd like to add at this point?

***Linda S. Elting, DrPh***
01:31:12
I don't think so.

***Tacey Ann Rosolowski, PhD***
01:31:14
Well, I really want to thank you for our conversations.

***Linda S. Elting, DrPh***
01:31:18
Oh, it's been my pleasure.

***Tacey Ann Rosolowski, PhD***
01:31:18
Yeah, it's been really really interesting. And this will be a real contribution to the whole collection.

***Linda S. Elting, DrPh***
01:31:25
Well, thank you very much.

***Tacey Ann Rosolowski, PhD***
01:31:26
Thank you. So I wanted to close off the interview. If there's nothing left. And I am turning off the recorder at about 37 minutes after 3:00. Thank you.

[01:31:41