

American Medical Informatics Association Nursing Informatics History project

Purpose

The overall purpose of the Nursing Informatics History Project is to document and preserve the history of nursing informatics.

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Rosemary Kennedy

Rosemary Kenney: My name is Rosemary Kennedy and I have a bachelor's degree in nursing and I have a MBA in healthcare administration. I'm currently the chief nursing informatics officer at Siemens Medical Solutions, and I've been there about 18 years.

Interviewer: First the basics, how would you describe or define nursing informatics?

Rosemary Kenney: I would describe nursing informatics as a science and discipline related to the management of data information and knowledge as it pertains to not only the science and discipline of nursing but patient care in general.

Interviewer: Rosemary, briefly describe your career in nursing that led up to your involvement in informatics.

Rosemary Kenney: That's an interesting question, and I was working in...

Interviewer: What is an interesting question?

Rosemary Kenney: Oh, let's start over; you want me to start with the question...

Interviewer: You can start with, I first became involved with—I first became involved with nursing informatics...

Rosemary Kenney: Okay, repeat the question, okay, sorry about that.

I first became involved in nursing informatics about 25 years ago I was working in the emergency department of the psychiatric emergency room and we had many patients that were repeat admiters, and we were wondering why. So we instituted a program related to patient education specifically their medications. So we went to the information systems department at the time and we asked them for information we thought it was the kind of information they'd be able to give to us in a few days. So we had our list of data elements and we told them to go to the clinical repository and get the information out and give it to us and would it take three days or four days. And they chuckled and laughed at us and said we can't get this information, it's stored in so many different systems it would take forever to get the information out. So I think that was my first exposure to nursing

informatics and clinical informatics. Although at the time I didn't know it was nursing informatics it wasn't necessarily a formalized discipline but we did know that we needed to get information out of a repository in order to evaluate our practice in the patient outcome.

Interviewer: Did you have an “aha” moment when you first realized the value of informatics?

Rosemary Kenney: I did, I had an “aha” moment when I first valued nursing informatics and the impact to practice. It was at a time when we were able to get information quite a few years later out of a repository and that showed the impact that nursing care had on outcomes—nursing sensitive performance measures. And to look at the information and to see the improvement and to look at how the information was represented and to have the ability to feedback to nurses and impacts in terms of pain management and nursing sensitive outcome performance measures I think was a real “aha” moment—where we felt like we made progress in terms of and the management of data and information.

Interviewer: When did you first consider yourself an informatics nurse?

Rosemary Kenney: That's a great question. I first considered myself an informatics nurse—I'm not quite sure maybe it was about 10 or 15 years ago when I attended the Nursing Terminology Summit I think the value and the specific focus of nursing informatics as a discipline became real, such that I felt that if I could touch it and see in terms of some of the topics and the challenges and the issues that and nursing informatics roles were trying to address.

Interviewer: Let's talk more about your personal aspirations or accomplishments—do you have an overall vision that has guided your work?

Rosemary Kenney: Yes, I've had an overall vision that has guided my work and it's focused on and quantifying and measuring the impact that nursing care has on outcomes. I work per diem in a telemetry unit and many shifts I go in and provide care to the patient and I go home at the end of the day, and I don't necessarily see the operational impact in a quantifiable form in terms of nursing care. And so my vision is to have the ability to measure the impact that we have on care and to also use the data and information to generate new knowledge that can advance evidence based nursing care.

Interviewer: In your career in informatics, who were some of the people or are some of the people that you have collaborated with to accomplish your vision or your goals?

Rosemary Kenney: Some of the people that I've collaborated with have also been a great inspiration and a great source of knowledge and I think when I attended the Nursing Terminology Summit, Dr. Judy Ozbolt, Dr. Sue Bakken, and Dr. Sue Grobe were very instrumental in terms of providing education and supporting efforts related to the representation of nursing practice within the electronic health records as it pertains to structured terminology. They were very instrumental in terms of opening up a whole new domain of nursing informatics for me. I think as it relates to a measurement of nursing impact on outcomes, Dr. Ida Androwich from Loyola University has also been instrumental and inspiring me to seek out new knowledge and to explore new domains of nursing informatics practice.

Interviewer: I'm sure Dr. Ozbolt talked about this in her interview, but give us your perspective on the Terminology Summit, how long has it been going on, when did it start, who's involved in it.

Rosemary Kenney: The Nursing Terminology Summit started in 1999 and there's a whole planning committee around there for which Dr. Judy Ozbolt was the leader for that group. And I think what made it interesting is that they brought all the key stake holders that were necessary and to advance the development of standards. And I think the use of terminology standards in various electronic health record offerings. So they brought in nurses, physicians, vendors, educators and I think it was the vast mix and domain experience of all the disciplines that made it successful—because I think their vision was not only advance the development of terminology standards that would represent nursing practice but they also wanted to see those standards used at the point of care. So I think it was a great collaborative mix of different disciplines and everybody educated everybody else in the domain space. And I think over the years the advancement and the integration—I know of many vendors and many providers are integrating those standards. So it shortened the turnaround time and it wasn't just a think-tank and isolation—people were able to take the concepts and the ideas and actually use them to improve in clinical applications and offerings.

Interviewer: I know in 2006 and 2007 you were involved in follow up from the Summit which was invitational and participated in pre-conferences of the Summer Institute of Nursing

Informatics—so can you tell us about how you took some knowledge from this Vanderbilt Terminology Summit, and perhaps disseminated it to others.

Rosemary Kenney: We've taken the concepts from the Nursing Terminology Summit and a mixed group, so and the group of people our team in terms of providing education—one of us represented the skill set from the Summit, because we had Dr. Judy Warren who is an educator and heavily involved in all of the standards and a great source of education for us—and we had different people from different vendors, and knowledge vendors, and EHR vendors. And our goal we started a few years ago and I think, Susan through your recommendation even, to take some of these ideas and start to educate people that we don't have to wait for it to be completely perfect. So we've done two years in a row, tutorial sessions. We've done tutorial sessions at IMIA and AMIA, and at the NI 2003 Conference and our goal and mission is to give the facts and the education to nurses around the world that work in various roles deploying clinical applications. And we've identified a roadmap process that they can take the concepts and ideas and integrate them in and start using them today—so we can expedite the time it takes to get the standards out and to get feedback about what's working and what's not working as people deploy the terminology and structure control terminologies than you're offering.

Interviewer: What do you see as the significant events that have shaped the field of nursing informatics?

Rosemary Kenney: One event that comes to mind that has shaped the field of nursing informatics is the development of the standardized nursing reference terminology model. I think that has advanced the field of nursing informatics because it has shown collaboration, it's a global universal model and it has given us something concrete that represents our practice and it also gives us something that we can deploy and integrate into applications and measure the impact that that has on the technology on patient care outcomes and share the feedback globally so we can grow as a unified profession around the world.

Interviewer: That's a great answer, can you think of any other events—don't feel pressed but if you—this might be the time to think of any other events that might have shaped nursing informatics.

Rosemary Kenney: I think one significant event that has shaped the field of nursing informatics is not specific, but it's more general, I think over the past five to seven years there has been tremendous collaboration and synergy within the discipline of nursing informatics. Between the AMIA Nursing Informatics Symposium, the HIMSS Nursing Informatics Symposium, University of Maryland Summer Institute of Nursing Informatics, and CARING—and the advancement and the growth of CARING as well as ANIA. Various conferences that are going on in the United States as well as globally—NI 2003, NI 2006. We're seeing tremendous growth in sharing of knowledge and I think that has greatly advanced the field of nursing informatics—the sharing and collaboration between educators and the people that are working in various hospitals and healthcare organizations deploying the various solutions and offerings. I think also and Dr. Judy Warren being on the National Committee for Vital and Health Statistics and various national initiatives that are going on and nursing voices is being heard more specifically as it relates to nursing informatics. I still have a long way to go but I think we've made tremendous progress over the past three to five years.

Interviewer: Talking about nursing research, what are some of the important questions addressed by research related to nursing informatics?

Rosemary Kenney: I think some of the important questions addressed by some of the research is the representation of nursing practice within structured and controlled terminology and significant research has been done on that front and Dr. Judy Ozbolt, Dr. Sue Bakken and I think and the research we're seeing now that these standards and the terminologies are being used at the point-of-care and there's significant research going on and feedback that's showing the impact that it has in terms of workflow, in terms of patient outcomes, in terms of user interface designs and that I think we've made tremendous progress in representing professional nursing practice in a centralized way within electronic health records so that we can integrate within other disciplines for patient care delivery yet still preserve the representation of our practice so that we can measure it and its impact on outcome.

Interviewer: What were some of the earliest events you recall in informatics?

Rosemary Kenney: One of the earliest events that I recall in informatics and from a personal perspective was I attended a SCAMC meeting, and I arrived early and I was invited to sit with a group of

people that were talking about various topics related to informatics. Now at this time I was in my own world in informatics working with technology and deploying systems in hospitals trying to get them up and running—clinical documentation offerings, ordering, all the various applications that one deploys in a hospital. And I tended to think that I out there on myself on an island all by myself and I sat with a group of people and experts, thought leaders in the field of informatics, not only nursing informatics but medical informatics, I think and Chris Chute, Stan Huff, they were all sitting around the table and talking about some of the challenges and it was enlightening for me because I shared some of the challenges and I also received many great tremendous ideas from that experience. And I walked away, and it's always, I've always remembered the encounter of about 10 to 12 people talking about the field of informatics and I thought it's a formalized discipline—this is really an exciting field that I want to focus and really dive deeper and obtain a better understanding.

Interviewer: Perfect. OK, at that time and you might mention when it was the early 90's I guess—was there anything happening in the social and political environment that either helped or constrained the development of the field? That's a tough one—was there anything, can you think of anything politically or socially that has either helped or constrained the development of the field.

Rosemary Kenney: The IOM Report—those types of things?

Interviewer: Anything happening in social or political environment.

Rosemary Kenney: I think in terms of the social and political environment—it's impact on nursing informatics if we think back in the mid 90's, late 90's increased national attention in terms of patient safety, and the institute of medicine report. And I think increase consumer awareness, adverse events, and I think consumerism as a social change, people were becoming more aware, I think professional accountability that nurses and physicians as professional entity were looking at the care that they were providing and increase national attention to safety. I think then at the same time around 2000, 2001 increase focus attention on the need for national health information infrastructure and maybe at that time there different words that they attached to it. But I think the nation politically were starting to look at what would it take to create a national health information infrastructure. And so I think all those [unintelligible] is the national health information

infrastructure movement, patient safety and increased consumerism and drew much attention to the role of informatics technology and even more attention to how data and information and the representation of it within electronic health records.

Interviewer: How has the field evolved and are you surprised at how it has developed?

Rosemary Kenney: In terms of the field of nursing informatics I can't believe how it's developed and it seems to be the past three years it has just taken off, and the number of people who are interested in the field of informatics. And when I attend conferences I'm just amazed at the large number of nurses and the various roles that they play and I'm even more amazed at the fact that I have 20 years of experience in informatics and I'm still learning and growing—but it seems to be you know we've made great strides over the past three to five years, and just the growth in numbers and interest. I think greater public awareness of what informatics is all about—and the critical role that it plays within the deployment of various solutions that clinicians are going to use to provide care.

Interviewer: Rosemary, are there any lessons you have learned that you would like to pass on?

Rosemary Kenney: There are lessons that I've learned that I'd like to pass on in terms of the field of nursing informatics. And one has to do with speed and movement that we don't have to wait for everything to be fully solved, I think we're early—still relatively early in the phases of understanding everything about informatics and that people can just kind of jump in, embrace and it and get moving, particularly as it relates to the deployment of solutions within hospitals and healthcare providers. I think I've also learned that it's not just nursing informatics as an island collaboration that nursing informatics combined with medical informatics that we're part of the broader clinical informatics community and that would be a lesson to pass on to other people that we represent one discipline of many that's needed in the field of informatics. And I think the last lesson that I've learned—and I don't know if it's a lesson or just an awareness, that nurses are great for informatics because of our board range in terms of our discipline. We know everything about providing care and responsible for running the operations of various hospitals. So everything from public health to population management—we cover the full gamete of healthcare delivery in that skill set and experience is critical to the field of informatics.

Interviewer: Where do you think the field is going and what opportunities or road blocks are ahead?

Rosemary Kenney: I think that the field of clinical informatics as we move into the future will expand and the concept of data and information and knowledge will expand above and beyond just the electronic health record as we look at other innovative forms of technology, voice communications, modality—that I think the definition of it is becoming broader and with the advancement of new technology and I think that will take off as we move into the future. And I think also and the idea of nursing informatics or clinical informatics won't just be within the domain and specialty of informatics we'll see slices of clinical informatics in other specialties. So every specialty will have an area so to speak and that will represent in nursing informatics, critical care, and OB GYN, that each of the various disciplines and specialties within nursing will be focused on the management of data information and knowledge. So we'll see broader dissemination of our specialty in our field within all the other different specialties within nursing.

Interviewer: Do you have any comments about the limitations of the field for nursing practice.

Rosemary Kenney: I don't think there are any limitations—I think it's all opportunity as we move forward. I think there will only be limitations if we don't take advantage of the opportunities and I think there will only be limitations if we don't collaborate and work together towards common goals. And there maybe one area if we don't gain a broader voice in public policy and I think we've made some improvements in that area. But that might be one area where there would be a limitation and we need to have a voice within public policy not only in the United States but around the world and the World Health Organization. So we have a window of opportunity to grow and expand and to make sure that it's an opportunity and doesn't end up being a limitation.

Interviewer: Why do we say nursing informatics—what do nurses bring to the party?

Rosemary Kenney: We say nursing informatics and nurses bring a lot to the party in the field of discipline of informatics. And the first that comes to mind is that nurses know how to collaborate. If you think about our backgrounds we pull various disciplines and have skill sets to the patients beside to provide care and we coordinate across all the various skill sets and disciplines and that skill set is a tremendous advantage in the field of nursing informatics. And nurses also, we know and figure out how to collaborate and work with each other. And we have to stay there the patients beside when we're providing care so I think that that is a skill set that we bring and I think our broad perspective of healthcare delivery—

we're in every facet of it, from direct patient care delivery to operation of organization and we see every aspect from wound to tomb of patient care delivery and not just that the diagnostic medical aspect the type of social aspect of care delivery—so we cover the full gamut.

Interviewer: Now that's the end of my questions for you, but is there anything you'd like to go back over or some new collegial relationships you'd like to talk about or anything else you want to add, things you might think are important.

Rosemary Kenney: OK, one of the things as we look at our nursing informatics that has happened over the years which I think is interesting and, and fascinating is there are many educators in, in the field of nursing informatics that really just don't stay confined within the walls of their universities and their settings. And I think what has really helped me professionally grow is educators and nurses that have doctoral degrees in nursing in informatics reaching out to other nurses around the globe to share some of that knowledge and education. And I think another critical important initiative is TIGER Technology Integration Guiding Educational Reform and I think they've taken that concept and expanded it and formalized it as a program to infuse and integrate within our educational curriculum, whether it's the undergraduate curriculum or nurses at the front line providing care. And a whole program initiative behind integrating the field and education around nursing informatics to frontline nurses who are providing patient care delivery and I think—both of those movements have been critical to the field of nursing informatics.

Interviewer: I think it's fabulous that you mentioned TIGER because as we've done these interviews over the couple years that didn't exist a couple years ago, so can you expand upon TIGER—you probably are maybe the only second one to talk about it. Is TIGER just an initiative for informatics nurses?

Rosemary Kenney: What makes TIGER interesting and is the fact that TIGER is for nurses in all disciplines and domains, providing patient care, working as a chief nursing officer, that's what's exciting about TIGER because it's reaching out to every nurse in every facet of healthcare delivery. And specifically, you know I work in the telemetry unit one or two shifts a month and I feel that TIGER brings hope because there's nurses on the front lines and if we provide education and operationalize and show them the value of technology

and how important it is and for our practice and I feel that TIGER can reach them all quickly as opposed to various initiatives reaching them one on one. And I think TIGER is interesting because it brings all the nursing organization specialties and they're the people that we have to reach out to. And that's what makes TIGER interesting and fascinating.

Dr. Covington: And I'm—my question to you would have been, you started as a nurse in what area of nursing and then you moved over to informatics and vendor and yet you still stayed involved in telemetry and you're hands on as a nurse.

Rosemary Kenney: OK, sure, sure. When I started my professional practice in nursing I worked in a hospital setting in various roles in a hospital setting from working in telemetry unit to working psychiatry and I really loved the patient care side of it. And I went back to school to obtain an MBA at the time there weren't formalized programs in nursing informatics and I was on a mission to get this data out of the system so we could figure out why patients would get readmitted and we could, we were trying to identify the impact that our educational programs for patient education we're having on outcomes. So at the time I went to an MBA program. I then became very heavily involved in implementing systems and worked closely with nurses on the frontline deploying the system. After doing that about 12 years I was out of nursing for those 12 years and I realized that I was losing a connection between what I was developing working for a vendor and who was using those solutions that in order to have a real good understanding for what was needed to be built into the solution then I should be out there using it. So I took a refresher course and went back to work, back to the bedside, and I brought with me the whole world of informatics, the whole world of technology and love for patient care. And it was powerful doing that because I was using the same solutions that I developed and I was obtaining a better understanding of what was working and wasn't working and why. And there were times I would make decisions—I had one specific situation working with engineers and analysts and programmers and we made a decision it was a Friday afternoon, I thought gee that's great, I think that's a good thing that will work. And we were talking about pagers and different things like that and I went to work the 3 to 11 shift and I was there about two hours and my Blackberry started to buzz on my hip and that got my attention and I realized that a pager wouldn't get my attention it's a telemetry unit, bombs could go off and I would still keep providing care for the patient at the bedside—so that was a real wakeup call the value of working at the bedside and interacting with technology—and

my love for nursing, the patients give me hugs and kisses when I go home at the end of the shift, no one at Siemens gives me a hug or a kiss! So that connection with the technology and I think it depends on the role you have within nursing informatics. It also made me realize and that nurses in the frontline don't know a whole lot about informatics and the role for technology so would view it as an opportunity to provide some education whether I was getting a shift report or in the medication room, I would take the opportunity to give them little snippets of the role for technology and that's why I think the TIGER initiative is critical—because you can't have one person out there, one, one, one providing this education you need to be part of a formalized program.

Interviewer: Great question—good answer.

Dr. Covington: Where do you see yourself at—you've had all these years and you've got this balance and you're working on the vendor side, where do you see yourself in your role, going in the future, are you in balance or....

Rosemary Kenney: I'm not in balance, I'm out of balance! OK, in terms of the future in nursing informatics—it's evolved a lot since I've been in the field of nursing informatics. And I have the technology side and I love developing the various technology offerings and the patient care delivery side. What's out of balance is research and scientific methodologies around research and I really would love to pursue advanced doctoral education because I want to focus on the research side of it so we can generate new knowledge about the profession and what we're doing and feed that new knowledge back into the science and discipline of nursing informatics. So I feel out of balance personally, as it relates to that and I feel that the need for advanced doctoral education will provide the education and knowledge and methodology that I can take so that I can have this perfect triangle—the technology, the patient care delivery and then the research so that I could generate new knowledge and feed it back into the profession.

End of interview