

Guest – Deepti Pandita, MD, FAMIA with introduction by Tiffany I. Leung, MD, MPH, FACP, FAMIA

Host – Anita Murcko. MD, FACP, FAMIA



Topic – Clinical Informatics Fellowship Directors

Before we begin, Dr. Tiffany Leung, past chair of the Women in AMIA Awards & Leadership Subcommittee and at-large member of the WIA Steering Committee, will give a brief introduction to this first episode in our podcast series highlighting the pioneering female directors of clinical informatics fellowships.

Tiffany Leung, MD

Thank you for the warm welcome on the FYInformatics podcast!

My name is Dr. Tiffany Leung. I'm trained as a primary care general internist and board certified in Clinical Informatics through the practice pathway in 2016. Recognizing the achievements of women in informatics, medicine and science in general has been a central focus of the efforts of the WIA Awards and Leadership Subcommittee over the past years. What started as an inventory of gender proportions of AMIA Signature Awards recipients and leaders of U.S. informatics programs, including CI fellowship programs, eventually led a subgroup of us - Ashley Griffin, Jessie Tenenbaum, and Arlene Chung - down a pathway of looking for and adding to the very limited literature available on examining the diversity of the CI training pipeline and physician informatician workforce. This is a relatively new subspecialty of medicine, with board certification via the American Board of Preventive Medicine first available in 2013. Some of the highlights include the following when it comes to Clinical Informatics training and board certification:

- Although accredited CI fellowships have been around since 2014, in 2018 there were zero female fellowship directors. In 2019, there were 7 female CI fellowship program directors out of 42 programs – this includes Dr. Pandita as a founding program director.

- In a survey study of applicants to CI fellowship programs in 2016 and 2017, among applicants surveyed, 24% were women (in contrast to 46% of residents/fellows being women); no applicants self-reported having Hispanic or Latinx ethnicity, and only one applicant reported having black or African American race.
- Among CI board certified physicians during the years 2013-2018, 52% were between the ages of 28-47 with the other 48% from 48-77 years of age; 93% of diplomates have one primary board certification; 94% are certified through the ABPM board in comparison to 6% via the American Board of Pathology. Among specialties, the top primary boards include: Internal Medicine (34%), Pediatrics (17%), Family Medicine (14.4%), and Emergency Medicine (10.6%). This study of diplomats noted that no data was available on gender, race, or ethnicity of the CI workforce. CA, NY, PA, MA, TX are the states with the highest number of CI board certified physicians.

Clearly these data are limited: 1) because of this one specific pathway towards a physician informatician career – but the reality is that there are many training pathways that physicians pursue. 2) because of the diversity of training pathways, it’s hard to get the data needed to understand the full diversity of this workforce – although this might change going into the future because of the closure of the CI board certification by practice pathway after 2022. There’s a lot of opportunity to learn more about the workforce and ensure that the more general promotion of diversity, equity, and inclusion in medicine can also infiltrate clinical informatics as well.



Anita Murcko

Today, I have the pleasure of introducing and interviewing our guest Dr Deepti Pandita she is the chief health information Officer of Hennepin healthcare in Minneapolis Minnesota and assistant professor in the department of medicine at the University of Minnesota and the program director of the clinical informatics fellowship at Hennepin healthcare. Today, we will be discussing her journey to becoming the very first female director of an accredited clinical informatics fellowship Program. She will also be sharing with us her unique perspective on increasing diversity in the field of informatics Thank you so much for joining us today, Dr. Pandita



Deepti Pandita, MD

01:25 It is a delight and pleasure to be here today, this is really a great happy moment for me to be interviewed in this format.



Anita Murcko

01:35 Wonderful so Dr Pandita let's start with a brief introduction, can you tell us a little bit about your background.



Deepti Pandita, MD

01:43 Sure, so I spend my childhood growing up in India and ever since I was a little kid I knew that I wanted to become a physician, and as I pursued that through high school and then, subsequently, I did end up going to had a desire to be sealed off internal medicine and with that desire I ended up. Coming to the United States or residency and did my internal medicine residency at the University of North Dakota now during that part have no clue what informatics was, I had no knowledge about this field, but then right when I was finishing my met my residency is when EHRs were becoming really popular. That was my first foray into informatics.



Anita Murcko

02: about what year would you say.

Deepti Pandita, MD

02:40 This was back and sort of 1995, 96.



Anita Murcko

02:47 All right, so EHRs attracted you to informatics what kept you engaged.



Deepti Pandita, MD

02:54 So, as my first started this is when people were really moving from paper records to electronic medical records and everyone was in total disarray, they were limiting the loss of control. When most physicians really, really upset about the change, I was one who embraced the change and then. My natural leader in this area, where people started looking to me as the super user and that opened up the field of traumatic for me because I started diving deeper into what our EHR is how do they keep processes afloat, how do they, how can we use them to do system improvement. And as that deep dive continued my learnings around informatics as well that's what has kept me engaged today is that system process improvement efficiency gains not only just with EHR but with information systems in general.



Anita Murcko

03:58 And, did you have a fellowship that you were able to be part of, or how did you get your formal education in informatics.



Deepti Pandita, MD

04:07 So when I was get trying to get training, the only two pathways were either to get a master's program or to do some self-learning programs, so this is when I discovered AMIA, American medical informatics association and found out that there were these courses, called the 10 by 10 courses the goal was to educate 1000 informaticians, by the year 2010.

- 04:32 And I took one of these courses, and this was through both Oregon health sciences enlistee there are numerous courses offered through various institutions- But this was the one I picked and when I did the course it opened my eyes to this whole world of informatics. Beyond that, I have just done self-learning didactic numerous refresher courses, I have done boot camps that are for CIOs & numerous other self-learning experiences that have given me the credentials that I have today.



Anita Murcko

05:06 Well, now that we know how you prepared yourself, can you tell us a little bit about the clinical informatics fellowships that you're involved in right now what basically is a clinical informatics fellowship.



Deepti Pandita, MD

05:22 Sure, so I couldn't go. Two-year program that someone can do after completion of residency so they still are trained in their primary field which could be anything, ranging from medicine to family medicine to pediatric neurology you know, there are numerous avenues, but then they do a two year program dedicated to clinical informatics and there is a pathway, where you apply, there is a match program where you get matched to a program that you might have interviewed for. And then you do the training and, at the end of the training there's a board certification, which is offered through the American Board of preventive medicine and then you become a board-certified informatic physician .



Anita Murcko

Okay, so basically you go to Medical School you select a residency and after that residency, You can do a fellowship and the fellowship in clinical

informatics is one that does not require any particular one type of residency preparation Is that correct.

Deepti Pandita, MD

06:31 Yes, but there is one exception, and that is if your primary residences and pathology, so the American Board of pathology has its own certification pathway for clinical informatics. So if you're coming through the pathology pathway then your board certification is through the American Board of pathology for all other specialties your board certification is through the American Board of preventive medicine.



Anita Murcko

06:54 All right, and to be very clear to our listeners we're talking about fellowships that are available to physicians and those are MDS and Dios Is that correct.



Deepti Pandita, MD

07:07 That is exactly right, yes, these fellowships are available to MDS and deals or have completed residency in a primary.



Anita Murcko

07:15 Great so fellowship programs themselves have been around for almost two decades, but the accreditation that we are talking about by the accreditation Council for graduate medical education, or ACGME, as we refer to it that's much more recent, can you tell us a little bit about what accreditation means and why it's important.



Deepti Pandita, MD

07:43 Right so having a ACGME accredited program gives you that sort of gold seal of approval from our accreditation body. And it means is that the sponsoring institution of the program meets the quality standards of for the clinical informatics specialty and prepares its graduates conforming to those rigorous standards.



Anita Murcko

08:10 And if you were looking for a program a clinical informatics program you want to look for one that's ACGME certified, right?



Deepti Pandita, MD

08:21 Definitely, the credentials carry a lot of value so if you have gone through an ACGMA credit program and someone's trying to hire you as an analysis carries much more value than if you had just general Program.



Anita Murcko

08:37 I see so as far as the accredited programs go there are about 50 accredited programs right now, your program was accredited in what year and how were you involved in that.



Deepti Pandita, MD

08:54 So the program I started at Hennepin healthcare in Minneapolis. The process started in 2017 so you have to submit to ACGME you have to meet all the criteria that they set out for this program is for competency requirements, you have to have all the Faculty available.

- 09:15run the program and once ACGME reviews the application process, they then give you the year need to actually establish the Program. And then, once you have the accredited program, then the next step is to hire or reach out to recruit fellows and that goes through again a standardized process called ERAS, which is what fellows y and residents used to apply for residency programs as well. And then there is a match process which is like a residency match to get the fellow that you know is interested in your Program.



Anita Murcko

09:53So to become an accredited program is quite rigorous and once you get accredited in the programs running the director's responsibilities focus on more of the day to day operations as well, so, can you tell us what a clinical informatics fellowship director actually does.



Deepti Pandita, MD

10:16there's a lot of moving parts to it so yes you're sort of that mentor the you know to your fellow you're also the person who holds their hand you're guiding them, you are getting acclimatized to what informatics is but you're also that liaison between the program and the accreditation body, so there is some requirements in terms of doing regular updates providing regular feedback doing the resident doing resident and fellow reviews. Making sure your faculty is up to par in terms of keeping up with the all the core competencies that the program has set out to have and making sure that the fellow is meeting those core competencies, you have to set up in service exams, you have to set up rotations and then If you have rotations at more than one side, you have to talk to the other site directors and make sure that you're conforming to all those rules or regulations so on a day to day basis there's a lot of work to do. But it's also a lot of fun because you're mentoring someone from something that they have never imagined they could do, and one of the two here. They finish their fellowship, and

they realize that they're open themselves up to this whole new world of medical informatics that they didn't know at all, two years prior.



Anita Murcko

11:40 So it sounds like if we ask you what the most energizing part of your job is, it has to do with your fellows and is that right.



Deepti Pandita, MD

11:49 Oh yes, I mean they they are my pride and you're the ones who keep me going on a daily basis, there is always a continuous learning cycle happening and the growth and the potential that you know you'll see start till the day they end is enormously gratifying.



Anita Murcko

12:12 And how would you explain the most difficult part of your position.



Deepti Pandita, MD

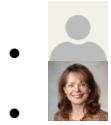
12:18 So for me it's a little unique because I two roles so I'm also the chief information officer and I'm the program director of the fellowship.

- 12:27 And sometimes these conflict with each other, so I think the most difficult for me has been keeping those two roles in parallel, but separate and trying not to merge them because they both have very set directors in terms of deliverables and such.



Anita Murcko

12:48 So that that's a balancing act, then for sure.



Anita Murcko

12:54 Lets us pivot a little bit to programs in your distinction, so we know that, out of nearly 50 accredited programs in clinical informatics fellowships in the United States, less than 10 are led by female informative like yourself and you were the first to hold this position in the United States. I'm sure that you didn't go out to become the very first in this so when did you become aware of this distinction.



Deepti Pandita, MD

13:32 it's strange like you said seek out to become the program director of graduate fellowship but when I first discovered this when program was announced, and I, we put it on our website, then we have a group called clinical informatics program directors group. And it was in that group, where you know we were going through the names and I realized why I am the only female there was some associate program directors that are females, but none, that was a program director. And that's how I realized it and it was just an Aha moment was you know, that was a time when we used to have these in person meeting, so I walked into a room where it's mostly men with maybe three of us females there and It was quite enlightening to be in that group of mostly men, and when you are sort of appear to them, but yet you're the only female in that field grow.



Anita Murcko

14:38 So how has being that first woman to hold this type of position in a male dominated field like clinical informatics impacted you.



Deepti Pandita, MD

14:50 Well, I haven't ever looked at it as a male female issue you know he set out to start a fellowship because I had a passion for this discipline and when I did it so happened that I was the first female.

- 15:03 I'll tell you along the path to learning about informatics launching this fellowship my doors were mostly male mainly because there were no female mentors I could find and they have been really helpful, I mean I don't think any male mentors I reached out to program directors across the country. Just randomly you know, asking for help, and you know suggestions on how to start the fellowship and they were more than generous they walk me through the process and then now I paid forward so when subsequently other females reach out to me, I come from a perspective of not only being a mentor to them, but also from the perspective of what it would take as a female to launch. Something like this, so I, it has been growing up process for me, but also a gratifying process, because then I can pay it forward and mentor more females.



Anita Murcko

16:04 Have you noticed any specific challenges related to your gender?



Deepti Pandita, MD

16:19 I think the most of the challenges come from the fact that you have to sort of mentors on your own so, for example.

- 16:31 My first informatics big annual conference, it was men all everywhere, and so the two females that I saw I just went and approach them, seeking a friendship to nurture. So I think it sort of fell on me to

seek out people who looked like me. But having said that, I think you know as our tribe is growing literally you know, there are many more females in informatics now.



Anita Murcko

17:17 that's great to hear. Related to that you're also very special role model in that you're a woman of color in addition to being a female and format assist is there any challenge that you see with that role.



Deepti Pandita, MD

17:34 Sure, so I think all the challenges of being a woman of color game, mostly from within me, I cannot say that I was not to You know, accepted but I was myself suffering from a huge imposter syndrome that as a woman of color I could not, you know, be at the same level as my white male peers and I had to work on that myself, because you know as things became evident in my leadership growth, I had been educated by non-informatics female leaders actually who were talking about imposter syndrome and that really was a turning point for me. In terms of working on myself to get over that complex, and you know, recognizing that color is just an award and it really doesn't impact my performance.



Anita Murcko

18:39 You've been mentioning the imposter syndrome. Though I think that that that's something that many of our listeners may be familiar with, but if you might share with us a quick summary of what imposter syndrome is and how that applies, perhaps to your mentoring of young women in informatics.



Deepti Pandita, MD

19:06 Sure, so imposter syndrome is basically when you feel that you don't belong and it's because of your own inferiority in yourself it's not someone telling you that you're inferior, but you have created this vision for yourself and it's getting past that that's important and I think, the main issue there is coming to that realization so a lot of women, I see you know hesitate or don't participate or feel like they don't belong, and when I am in a group of women and I'm trying to mentor them in informatics I tell them speak up and when they say Oh, I cannot speak up because I have an accent or you know I don't look like my peers. You know I educate them and say this is your suffering from imposter syndrome, you need to develop. You know your self-confidence and but also here are some tools and resources and there are numerous tools and resources out there to work on your self-reflection of why you feel that imposter syndrome and how to overcome it.



Anita Murcko

20:20 Well, thank you very much for that, and as we think about our mentoring and our teaching I was wondering if you might share with us how we can inspire more young women and underrepresented minorities to a career in informatics.



Deepti Pandita, MD

20:39 I think the mentorship has to start way way early, I think it has to start a high school level almost and you know I participate in some high school programs, where we may arise them with. The concept of clinical informatics these are women in STEM that was trying to go into informatics and then you continue that mentorship through the undergraduate level courage will seek out clinical informatics in their undergraduate career and then continue that in their Medical School career, whether they're going to an md or a do program you know sales related to clinical informatics encourage them to take those electives and then drive those electives so they see a female teaching a medical

informatics electives more females are attracted that this is something I can do, she can do it, I can do it. And then same thing you know once they are seeking out residency so, for example, if I'm in my clinic and I have a female president and I that you know they have an interest in what I do I then quickly take them under my wing and guide them as to what is clinical informatics and how they can grow.



Anita Murcko

21:55 So your inspiration of new leaders sounds like you're starting in high school. Can you tell us a little bit more about your high school stem scholars Program.



Deepti Pandita, MD

22:09 Sure, so this is something we have, AMIA program where we just did our very first webinar or high school scholars for women in STEM . And this was just a very informal you know, a chat about introducing them to concept of informatics and then having them ask questions you know what is the day in the life of an informatics look like and specific to them, you know physicians were just specific to the discipline and we had a lot of engaged to youngsters who wanted to know more.



Anita Murcko

22:49 that's a wonderful wonderful program, would you be able to tell us about perhaps your efforts to outreach to other organizations, I know that you recently were involved in an educational session for the American college of physicians. How does that help us with our pipeline for Informaticians?



Deepti Pandita, MD

23:17 Yes, that that is an excellent program so the American college of physicians has a lot of committees for that state level and national level. So, for example, my in my state of Minnesota we did not have a state level medical informatics committee. And yet, a lot of the pain points for clinicians will related to informatics or the emr and some are regulatory burden related to the emr. So I started our state medical informatics committee and then connected at the national level with American college of physicians and now I am the current vice, Chair of the national medical informatics maybe for the American college of physicians. And that's a great way for people who have an interest in informatics but are in the side of care delivery to get involved and see you know what the landscape of informatics looks like it's so a way to get engaged in driving. Policies and regulations and also understanding pain points for clinicians and solving for them at a national level.



Anita Murcko

24:29 So, as we think about the future, do you have a particular vision for your program at Hennepin.



Deepti Pandita, MD

24:41 Well, I at Hennepin I want my program to grow.

- 24:46 You know, we currently have two fellows what we want to increase it to four, eventually, I also want our program to become more visible in terms of the products they deliver so currently our program is very didactic based very hands on clinical informatics based. I want to move it in the direction of where the world of informatics is moving actually is doing more innovation doing more artificial intelligence based outcomes, so I think will gradually, we are moving towards what the world of informatics is moving to, and I want my program to be sort of a pioneer in that growth.



Anita Murcko

25:31 And i'm sure they will be as far as clinical informatics programs, in general, how do you see the program evolving over the next five to 10 years.



Deepti Pandita, MD

25:44 I think you're going to see an exponential growth in the number of programs, I mean currently we have about 48 programs in the country. I think it's going to rise rapidly, because the interest in the field is only going up and the demand and of informatics clinicians is going up as well. So I think you're going to see a rapid growth in the number of programs you're also going to see growth in people from various disciplines embracing informatics so traditionally its primary care fields. People who have done residency and say family medicine internal medicine pediatrics they tend to gravitate to and metrics. But I think you're going to eventually see people from very subspecialties like radiology urology you know anesthesia These are people who traditionally have not gone in this field, but more people from these backgrounds coming into.



Anita Murcko

26:39 Exciting, yes, and so what's in your clinical informatics crystal ball?



Deepti Pandita, MD

26:46 I think like an informatics is a discipline that's right for growth because there's so much excitement in the field of healthcare delivery using technology so that's what we do, we improve systems we

improve health of our population we improve health of our communities using technology, so I think the future is bright and I think we can look, for real exciting things happening in the very near future and I'm not even talking a decade from now, I think, in the in the next three to five years there will be a lot of changes in care delivery coming all driven by the principles of informatics.



Anita Murcko

27:57 Dr Pandita Thank you so much for sharing your time and insights with us today, it has been exciting for all of us to hear from the first female director of an acg me accredited clinical informatics program fellowship. You can learn more about those fellowships at the AMIA, American medical informatics association website.

And now, Dr Pandita before we let you go today, do you have any last words of wisdom for our listeners who may want to learn more about pathways to clinical informatics leadership.



Deepti Pandita, MD

28:37I think clinical informatics leadership is not any different from any leadership, so I would say, if you are interested in being a leader. Seek out any leadership opportunities, you have, whether it be in your health system in your community and then apply the principles of informatics to those leadership. You have, and you will automatically see the benefits of growing, not only as a leader, but also as a clinical informatics leader.



Anita Murcko

29:09Well, thank you very much.

This is Dr Anita Murcko concluding this for your informatics podcast where today we explored together the limitless world of medical informatics with pioneering informative Dr Pandita.

