Host: Hello and welcome to For Your Informatics, a podcast exploring the limitless world of medical Informatics. My name is Dr. Mindy Ross. I'm a clinical informaticist and pediatric pulmonologist. I'm also a member of the For Your Informatics podcast team, and I'll be your host for this episode.

Today we have the pleasure of interviewing Dr. Amy Gottlieb. She is a Professor of Medicine and Obstetrics and Gynecology, the inaugural associate Dean for Faculty Affairs at the Springfield campus of the University of Massachusetts Medical School, and she holds a Vice President level role at Bay State Health. She is currently Chair Elect of the Association of American Medical Colleges Group on Women in Medicine and Science Steering Committee. Dr. Gottlieb has 20 years of supporting women in medicine and gender equity.

Prior to entering medicine, Dr. Gottlieb worked in corporate finance. She merged these two fields and now leads national efforts addressing gender based salary equity and encouraging organizational leaders to pay attention to workplace practices that inadvertently disadvantage women. Her book, *Closing the Gender Pay Gap in Medicine: A Roadmap for Healthcare Organizations and the Women Physicians Who Work For Them*, was published in January 2021, and her prospective article, “Closing the Gender Pay Gap in Medicine”, was featured in the *New England Journal of Medicine* in December 2021.

Before we begin our interview with Dr. Gottlieb, we will have a few introductory words about this important and timely topic from veteran AMIA member Dr. William Hersh, who is Professor and Chair of the Department of Medical Informatics in the Oregon Health and Science University School of Medicine.

Introduction: Hello, I am Dr. William Hersh, professor and chair of the Department of Medical Informatics and Clinical Epidemiology in the School of Medicine at Oregon Health and Science University. I'm also a career member of the American Medical Informatics Association, also known as AMIA. I'm also a Fellow of the American College of Medical Informatics and a Fellow of AMIA. I have the pleasure of providing an introduction for this special episode to recognize Equal Pay Day 2022 on AMIA’s For Your Informatics podcast.

Equal Pay Day in the United States represents how much longer women have to work, including their earnings from the previous year, to earn what men earn for the previous year. These earnings also vary by race, ethnicity, and region. According to the Bureau of Labor Statistics, in 2020, women earned $0.82 for every dollar a man earned for the same work. The persistence of gender pay inequity is alarming. Women physicians fare much worse last year. In 2021, an association of American Medical Colleges report documented widespread disparity in pay by gender after adjusting for fulltime status, rank, specialty, degree, race, and ethnicity, with women earning $67 to $0.77 on the dollar compared with white men.

Our AMIA members faced the same challenges. In 2018, an unadjusted salary survey of the membership found that men overall earned more than women, especially physicians in academia. Back in 1999, Massachusetts Institute of Technology published a groundbreaking report documenting inequities in salary and resources of women academicians that reached the public somewhat but did not lead to widespread corrective action across the country. My personal experience validates these disparities. At Oregon Health and Science University, it was recognized that there were pay disparities between men and women at comparable academic ranks. The University was also prompted by the Oregon Pay Equity
Act, which enshrined into state law the requirement of equal pay for equal work. As such, a process was undertaken to bring those who were underpaid up to benchmark salaries in the case of School of Medicine faculty to median levels in the AAMC faculty salary tables. This also impacts me personally as the father of a female physician in training who will hopefully be paid equitably as she moves into her career after residency.

We in AMIA value all members of our community and hope to increase our diversity as well as equity in all areas over time. As an ally, we are doing our best to shine light on this important, timely, and relevant topic for institutions around the world.

**Host:** Welcome, Dr. Gottlieb.

**Dr. Gottlieb:** Thank you so much. Dr. Ross, it's a pleasure to be here.

**Host:** Thank you so much for joining us. Let's start with you. Please give our audience a synopsis of your expertise and how you may closing the Gender Pay Gap in Medicine your career focus.

**Dr. Gottlieb:** Thank you so much for that question. My undergraduate training in economics and my experience working in corporate finance have really provided me with a unique lens through which to view the gender inequities we see in Madison. I left corporate finance to go to medical school so I could help improve the healthcare response to marginalized populations and spent much of my early- and mid-career as a medical educator developing curricula and building institutional infrastructure to address social determinants of health, particularly related to women.

As my career unfolded, however, I noticed inequities in promotion and leadership opportunities for women in our profession and became increasingly engaged in creating programs to help all individuals fulfill their potential in medicine. These efforts led to several national leadership roles in the Society of General Internal Medicine and now in the Association of American Medical Colleges, also known as the AAMC. In fact, it was through my work with the AAMC that I became deeply involved in salary equity work. Closing the gender pay gap in medicine truly represents a confluence of my finance background and my lifelong advocacy for and passion for gender equity.

**Host:** Very impressive and women in medicine around the world. Thank you for your work. So to start off and frame the issue for this episode, what does inequitable pay represent for women in society and why does it matter?

**Dr. Gottlieb:** We can think of the gender pay gap as a crucible in which all the forces that diminish women's professional value within our society and our institutions converge. This is particularly true in medicine, where there are multiple inflection points in women's career trajectories, where our traditional way of paying folks of valuing the work that they do disproportionately rewards the way men, physicians, and faculty have worked and lived for generations. It's therefore critical to identify, acknowledge, and address these contextual forces as we set about correcting the practice of paying equally talented women less than their male counterparts.

**Host:** If pay represents how one is valued in society and or the work world and women have been systemically undervalued, then why are women deterred from advocating for their value in the form of pay? For example, they may be labeled as selfish when they negotiate or talk about the subject, while it's typically expected and even welcome for men to negotiate.
Dr. Gottlieb: That's a great question. Research shows that women who violate cultural stereotypes so
women from time and memorial are expected to be nice and caretaking and other focused and women
who violate those implicit expectations by advocating for themselves, their ideas, and their
compensation or their resources in the workplace experience backlash. And backlash in this context may
be defined as social and economic punishments for engaging in behavior inconsistent with what's
expected for members of one's social identity group. For example, women who negotiate during a job
interview are viewed as less hireable. That's what the data shows. Since implicit bias limits their ability
to negotiate successfully. The burden of salary equity lies beyond the full control of an individual woman
candidate.

However, until organizations address this phenomenon systematically, it is really essential for women to
equip themselves with knowledge about salary benchmarks, institutional target ranges, and metrics for
placement within those ranges in order to support their being compensated equitably. Additionally,
knowing that there are well described penalties, the social penalties or backlash, in the workplace for
women who self-advocate around salary and resources, I encourage women to use appreciative inquiry
and approach the exchange around compensation as a conversation instead of a negotiation. The best
advice I ever got or concrete advice in this sphere was to approach a conversation or a discussion
around compensation, like one would approach a discussion around the method section of a journal
article. We're all really comfortable with that. We're saying, ‘So you decided to do this, and I'd like to
understand how you got to that number. What are the metrics? What was the calculation behind that?’
Think of it in that context, and I think in many ways that kind of deescalates some of the environment.

Host: Thank you. That's a lot of knowledge and advice listeners can really put to use today. And as a
follow up, we also know there are pay inequities, among other historically marginalized or excluded
groups. What about those at the intersection?

Dr. Gottlieb: That's a great question. Thank you so much, Dr. Ross. So for the first time really in our
professional history, we now have the opportunity to look at salary data among academic physicians
through an intersectional lens. The AAMC, Association of American Medical Colleges, published a report
last fall that looked at about 1000 faculty salaries nationwide through an intersectional lens. And what
that data showed was that in academic medicine, women physicians, so there are about 60,000 data
points for this aspect of the report. So women physicians are paid between 67 and $0.77 on the dollar
compared with white men. Moreover, women physicians, regardless of race or ethnicity, earn less than
men of every race or ethnicity. Women physicians earn less than men in every specialty and at every
academic rank. And these pay disparities begin right out of training. In fact, women physicians
experience one of the largest gender pay gaps in the US Labor market.

Host: So it sounds like no matter what, being a woman puts someone at the highest risk for a salary
disparity, and that seems to be the primary driver. And then among women, nonwhite women would be
put at a bigger risk. I think the AAMC report mentioned the Institute for Women’s Policy Research
estimates it would take Black and Latino women decades longer to reach pay equity in the United
States. So institutions would need to take a strong purposeful action now to rectify this sooner than
projected. And actually, this risk for women at the intersection has been on the For Your Informatics
podcast group’s radar, and they're developing an episode around this. So stay tuned for that. One of
these days.
So, Dr. Gottlieb just seems very daunting for women out there. How do they not become discouraged about the whole situation? What do you usually tell them to keep up their motivation, to even put themselves out there and speak up for salary equity?

**Dr. Gottlieb:** Again, thank you. That's a great question. As I touched on a bit earlier, it's very important for individual women to equip themselves with knowledge about national salary benchmarks for their rank and their field of practice, and to try to understand the methodology and benchmarks their institutions are using to determine their compensation. Just amassing that knowledge and having those conversations, it's critical to individual empowerment. Additionally, I cannot emphasize enough, and there's significant research to support this. Even small gains in salary equity have tremendous impact on lifetime earnings and accumulated wealth.

**Host:** Yes, very important to remember, to keep in mind it will help future generations of women. Can you go into a little more detail about that?

**Dr. Gottlieb:** Advancement disparities and lifetime suppression of wages have a considerable impact on the cumulative wealth of women in medicine and science and carries significant implications for retirement choices and post retirement quality of life. A few years ago, some investigators at Hopkins published a really elegant study in which researchers looked at an accumulated wealth simulation. These researchers assessed over 3300 School of Medicine faculty salaries, as well as longitudinal promotion data to understand the effects of gender differences on total salary and accumulated wealth over a 30 year academic career, while adjusting for department rank, degree, and years in rank. And what these scientists showed was that even a small gender pay gap less than 3% translated into large differences in accumulated wealth to the tune of about half a million dollars. And Furthermore, owing to the cumulative effect of these disparities over a career, a woman faculty member would find herself in a situation where she would have to spend her retirement savings at a rate 40% slower than her male counterparts to compensate for less retirement money and longer life expectancy. Or, if she spent at the same rate, would run out of money seven years before her death.

**Host:** Thank you. Very eye opening. Okay, so on to the why. Why do you think women in medicine are paid less? In the physician realm, for example, women are now at least 50% of medical students, and they contribute to their family’s economic security. Also, there’s no evidence I’m aware of that women are inferior physicians. Rather, the opposite has been reported in the literature.

We touched upon it briefly before, but what systemic and cultural issues are important to take into consideration about how we got to the situation and how society can move forward?

**Dr. Gottlieb:** So compensation methodology and medicine typically rests on a formula of base salary determined by commercially available benchmarking data, plus additional monetary reward for rank, leadership, and productivity. This methodology contributes structurally to gender based salary inequities because of women's diminished earning potential in each domain. For example, regarding base salary, there is often considerable difference between the dollar amounts at the low and high end of the benchmark ranges, allowing organizations wide birth in making compensation determinations. Salary expectations and vigorousness of negotiation during initial hire are critical to establishing where an individual faculty member falls in that established range and are potentially vulnerable to gender bias. Productivity based compensation is impacted negatively by increased demands on women for organizational service, increased time spent with patients, resulting in better outcomes but lower volumes, and greater responsibility for domestic duties compared with male colleagues. Similarly,
limited formal leadership roles and less sponsorship to access those roles decrease the compensation that attaches to these opportunities.

Moreover, emerging evidence reveals that women trainees continue to be directed towards specialties like Pediatrics that require traditionally feminine attributes and away from procedural more technical ones like Ortho. We also see in academic medicine and quite honestly, in healthcare at large, that women tend to hold senior leadership roles that are consultative and supportive rather than those that are with managerial or budgetary responsibilities that are really the incubator positions for the C-Suite or the Dean-Suite. By an example, in terms of these roles that are supportive and consultative, I would point to Faculty Affairs Deans or on the business side of the house Chief human Resource officers. This phenomenon is called occupational gender segregation, and it has tremendous consequences for pay equity in the US Labor market at large. A loss of prestige and a decline in earnings have been shown to occur after a large number of women enter a field or occupation. So when an entire specialty loses ground in terms of relative compensation. For example, like we've seen in OBGYN and in Pediatrics, and that decline in relative compensation is reflected in the salary benchmarks we use, the earning potential of all women entering those fields is put at potential risk.

So in sum, we need to build institutional cultures in which men and women are not limited by role expectations. And at the same time, we must recognize that closing the gender pay gap in medicine is a critical business endeavor, requiring the same rigor and attention to detail afforded other operating costs. So our HR and our finance colleagues are going to need to take a good, hard look at basic assumptions underlying institutional compensation methodologies to understand the expectations and the outcomes they generate, to create new approaches that better account for the unique contributions of women and the biases facing them, and to track and report gender metrics at all compensation touch points like initial hire and promotion.

Host: Wow, it really is such a systemic issue, not necessarily something individual women can change on their own. It seems, then, that ideally, institutions would be obligated to step up and fix the situation on behalf of all women, as they have the means to fix it and it’s the right thing to do. But that takes a lot of effort and costs money. Why should institutions want to fix this?

Dr. Gottlieb: Excellent question. It's good business to pay your workforce fairly and not to pay half your bench less than the other half for the exact same work. Also, paying women less than men for comparable work puts institutions at legal risk.

Host: That's right, there are supposed to be laws to prevent gender related pay and equities. We shouldn’t even need to have this podcast rate. But how can institutions change something like this by themselves? If they got into the situation, it sounds like they could use some help. Maybe your help, because your book offers ideas from change management theory about how institutions can get from this discussion trigger phase to the vision action stages that eventually affect change. So can you please tell us more about that? What advice do you give institutions?

Dr. Gottlieb: We have so much to learn from the QI [quality improvement] movement. As I'm sure most of your listeners are aware 20 years ago, the Institute of Medicine called the US medical community to action to prevent deaths related to low quality care. Just like QI, for gender equity to progress from exhortation to intentional action will require measurement, reporting, and incentives. Institutions need to start somewhere to do something. They need to track gender representation among applicants, among offers, promotions, leadership roles, departures, and require really expect unconscious bias training for everyone involved in recruitment, hiring, evaluation, promotion, and salary setting.
Organizations must conduct salary audits, especially at initial and looking at initial and final offers and startup packages. After conducting these critical salary studies, institutions should identify where along the career continuum, the gender pay gaps are emerging. Most significantly, is it an initial hire? Is it a promotion? Then the next step is to review institutional compensation methodology or methodologies, because my anecdotal experience is that many organizations and institutions have different methodologies depending on unit or department, etc. So review compensation methodologies and consider potential drivers of disparities, and then pick a driver and tackle it, whether that's establishing standards around salary benchmarks or guardrails around salary negotiations during initial hire, or trying to really address disparities in representation amongst senior organizational or faculty roles. Start somewhere, do something.

**Host:** So if I understand correctly, it's very important for institutions to pay attention to long term sustainability, to make permanent change to the practices that got them to this place. For example, it's one thing to correct salaries in the short term once like a bandaid, but even more important to maintain the changes with things like annual salary equity reviews, using more competitive and less gender bias, salary benchmarks, etc. What are the biggest challenges for institutions around this movement for making sustainable change and to keep themselves accountable?

**Dr. Gottlieb:** Well, few would argue with the concept of equal pay for equal work. It's really how to achieve this goal that overwhelms institutions and their leaders. Organizations really do need a roadmap. That's why I published my book. Organizations need a roadmap to help them assess how current compensation methodologies perpetuate paying equities, how to build the governance structures, coalitions and processes necessary to incorporate equity principles into routine business practices, and how to create the dialogue, consistent messaging and cascaded information to achieve organizational transformation around gender equity.

**Host:** Yes, it seems that how is crucial. So thank you for helping institutions and leaders with this roadmap. And what changes or advancements have you seen towards equal pay since you've started your work in this field and what does or doesn't give you hope?

**Dr. Gottlieb:** We are certainly talking about it a lot more, and organizations with significant impact in the sphere of academic medicine. Organizations like the Association of American Medical Colleges are making great strides in supporting pay equity, specifically around the AAMC, by publishing compensation benchmarking data widely and analyzing the extensive salary data that it collects by gender and race and ethnicity. To shine a light on these inequities.

**Host:** Thank you. And what's your advice for someone starting just starting out of training?

**Dr. Gottlieb:** I wholeheartedly believe that the primary responsibility for closing the gender pay gap in medicine rests squarely on the shoulders of our institutions. For all the reasons we've talked about. On an individual level, the most critical contributor, and I hope I've communicated this...the most critical contributor to pay equity is understanding the playing field, the rules of the game. As I've mentioned a couple of times, folks really need to know that there are several commercially available benchmarking data sets out there that institutions rely on. One of the most commonly used in academic medicine is the AAMC, the Association of American Medical Colleges Faculty Salary Survey, which is an intentionally affordable for purchase online.
Additionally, as I also touched on earlier, women job candidates need to inquire about and get an understanding around institutional target ranges and metrics replacement in those ranges to ensure they're being paid fairly at the beginning and throughout their careers.

Host: And one clarification question for our listeners, can the AAMC's faculty salary survey be purchased by individuals or is it only institution?

Dr. Gottlieb: It can be purchased by individuals, yes.

Host: Oh, wonderful. Thank you. Okay, so for a little fun, we asked our audience to submit questions for our Equal Payday episode. And thank you for answering these. Here are some other questions. So can you advise on how to put together your personal elevator speech when you succinctly describe your accomplishments to leadership over the last year, often done by mail, which will then be data to further support the pay you advocate for.

Dr. Gottlieb: So you use the operative word, which is data. Make sure in these brief statements that you elaborate on organizational impact, no matter how small. And so I could imagine that a statement would go something like I envisioned X—so identify the issue, problem, opportunity you tackled and produced Y—What was your outcome? That's the data piece, and this is how it's affecting Zed organization. Simple, sweet, data driven organizational stewardship and impact.

Host: Love it. Thank you. That'll be very helpful to the listeners. Okay. Next is hospital systems don't seem to have standardization within our across them in many aspects. Nurses, some resident programs have unions, and it has helped. Could a physician Union or increased bargaining power, i.e. strengthen numbers, be part of the answer to help close the gender pay gap in medicine?

Dr. Gottlieb: I really wish I could answer this in a more satisfying way than saying it is such an interesting idea. I mean, that authentically, but I don't know much about collective bargaining or how that would take shape for physicians.

Host: And finally, from the audience, it has been said that a person has more value when they may leave their institution when they are trying to achieve salary equity because you can have that offer, counter-offer approach. However, this seems like an adversarial approach versus the institution just doing the right thing, just paying people. Equitably. Is this something that's part of the game, or is there a better way?

Dr. Gottlieb: My understanding of the data of the literature is that this type of approach is not particularly helpful for women who may experience backlash for seeming disloyal. It’s not fair. That's not fair, of course, but that's how implicit biases and unconscious cultural expectations do damage and have negative impact. I think it's much better for women to be transparent and discuss compensation objectively and consistently at initial hire, a promotion at all those career inflection points.

Host: We at For Your Informatics podcast and our listeners. Thank you so much. So before you go, any last words of wisdom?

Dr. Gottlieb: Well, thank you so much, Dr. Ross, for this opportunity to meet you and to meet your listeners and I'd like to leave folks with the following. Like QI, closing the gender pay gap in medicine is not an easy undertaking, but the complexities are solvable and should not deter institutions or their
leaders from adopting a strategic vision to compensate all physicians. Equitably overturning processes and implicit expectations that have been in place for decades, if not centuries, will take time. Start somewhere, do something, stay focused and avoid the temptation to fix everything at once. Ongoing evaluation, feedback and remediation are critical to process improvement and lasting change.

Host: Dr. Gottlieb, thank you for your time, your wisdom, for sharing your work with us in the world. I wish we had more time and we would love to know so much more. It's been an honor to speak with you, to meet you and have this opportunity to bring your advice to institutions to help them tackle the important matter of closing the gender pay gap in healthcare.

Hopefully, your book has inspired all institutions and leaders to effect change.

Dr. Hersh: Dr. Gottlieb’s book, *Closing the Gender Pay Gap in Medicine: A Roadmap for Healthcare Organizations and the Women Physicians Who Work for Them*, can be purchased through Springer Publishing directly or Amazon.com. These specific links to her book and *New England Journal Medicine* perspective article “Closing the Gender Pay Gap in Medicine”, along with other sources mentioned in this podcast and relevant reading can be found by selecting the News tab for the For Your Informatics podcast page on AMIA.org as well as through the podcast social media channels @FYInformatics on Twitter, LinkedIn, Instagram and Facebook. You can find Dr. Amy Gottlieb on LinkedIn under AmyGottliebMD and Twitter as @Amy_Gottlieb. Also find Dr. William Hersh on Twitter as @WilliamHirsch and on LinkedIn as Bill Hersh.

Thank you everyone. This is Dr. Mindy Ross. Concluding the For Your Informatics special episode for Equal Pay Day 2022.