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BD's CTO Beth McCombs Discusses Key Initiatives – AI/Gen AI; DE&I Strategy; Succession Planning

by [Marion Webb](#)

BD CTO Beth McCombs discusses her role in driving innovation, including the integration of AI and generative AI to create efficiencies, and passion for creating a culture of inclusion, diversity and equity.

Friday, March 8 is International Women's Day. To celebrate the day and Women's History Month, Medtech Insight spoke with [female leaders](#) in medtech, regulatory and health care delivery about their experiences as women, women-specific industry challenges including research and innovation needs, and how women in leadership roles today are inspiring and empowering rising generations.

Beth McCombs considers herself fortunate to have had leaders and mentors who recognized her talent, hard work, and ambitions to grow throughout her highly success medtech career. Now the executive vice president and chief technology officer at [Becton Dickinson AB](#), who is responsible for leading all R&D activities for BD, is paying it forward by fostering a culture of inclusion, diversity and equity at BD.

McCombs talked to *Medtech Insight* about some of the challenges she faced throughout her now more than 25-year-long career in medtech. She discussed how she overcame preconceived notions and biases and initiatives at BD to create more leadership roles for women and people of color.

She also spoke about how BD is integrating AI-powered tools and generative AI to create efficiencies within the company and for their customers, and how women can contribute to those efforts.

Before joining BD in 2019 as senior vice president, R&D for BD's Medical Segment, she spent 20 years at [Johnson & Johnson \(Pty\) Ltd](#) in various roles including as director for the J&J Corporate Office of Science and Technology and VP, R&D for J&J's Sports Medicine Business.

The interview that follows has been slightly edited for content and length.

Q What inspired you to pursue a career in the medtech industry?

A McCombs: I knew early on that I wanted to do something in health care related to science and engineering. My mother is a nurse and my father is an engineer, so I was exposed to both of those fields early on and always gravitated toward math and science. In the early days I was debating between going into medicine or going into engineering but ended up choosing engineering based on the opportunity to really innovate and have impact on an even broader set of people.

Q What are some of the biggest challenges you faced as a woman leader in the predominantly male-dominated field like medtech? How did you navigate these challenges?

A McCombs: I faced a couple of key challenges that are very similar to what most women would face in medtech and in business in general, and I put those in two categories. One is balancing and managing work and life responsibilities. The second is to have the confidence to advocate for ourselves, and also overcoming bias that may either be clearly perceived or not. I've been very fortunate on the work-life front. My husband has taken on the role of lead parent for our family since our first daughter was born. When I returned to work after my maternity leave, I was actually given more responsibility.

There were people who believed in me, saw my potential, and didn't see this as an opportunity to take my foot off the gas, but rather [they had the attitude of] 'let's go faster, see what Beth can do.' In terms of advocating and encountering bias, I wasn't always wanting to advocate for myself. It was more about doing the work and letting the work speak for itself. Again, I was very fortunate to have had enlightened mentors at work and leaders above me who provided a lot of opportunity. It can be hard to be

both female and young in engineering, because you can be underestimated.

There were times where I felt that there were certain comments about my appearance versus my work that would take me off my game sometimes, but there were people that would speak up around me and say, 'this isn't appropriate.' Over time, I was able to find my own voice and really speak up for myself and now I'm in a place where I can speak up for others as well. I think it is just important for us to call out those issues when we see them, whether it's as ourselves as women or as allies so that we can nip it in the bud and create the culture that really supports and develops everyone.

Q How do you see the role of women evolving in the medtech industry and what changes have you witnessed over the years?

A McCombs: I would say at both my time at BD and Johnson & Johnson and over my entire career, I've felt that it's a very inclusive, supportive culture. I know that not every company is that way, but I elected both companies because I did my homework about the culture. I would say we've made progress in terms of representation of women at senior levels. At BD, five of our executive C-suite leaders are women and four of our nine business unit presidents are women. We've built more representation at the top. That being said, I don't think we've made as much progress as I would have liked to see over 25 years in advancement of women in technical fields. And I think some of the barriers we talked about earlier still exist. We recently did a survey of over 300 women within the organization to really understand some of the barriers to advancement, because we do see a drop-off when we get to the manager or staff-level engineer, and it comes back to the two areas we talked about earlier, and we're working to more proactively support and advance women through R&D.

Q What are you doing in-house to remove barriers to advancement for women?

A McCombs: One of the key initiatives we have is in our succession planning process. We have an inclusion and diversity team that's really helping to put more guardrails

in place or questions for us to ask during succession planning that would help us challenge certain biases or things that could come up. For example, this job would require a lot of travel and [there is the assumption that] a woman is less likely to travel. We would call those assumptions out and say, ‘maybe we should ask the person, how they feel about it?’

We started this for our director-level group for more proactive succession planning, and then we're going to be driving that down to the next level within our businesses this year. That's one of the most important things we're doing within R&D. If we can find those high-potential diverse leaders, and it's not just women, it's people of color as well that we're really trying to target. How can we help them move along more quickly and ensure that certain biases aren't getting in the way of their opportunities?

Q What are some other biases that you've come across in your career?

A McCombs: I've been in situations where peers of mine have said that job is hard enough for a man to do, so how can we expect a woman to do it? So, it's a little bit of that. I don't know if it's benevolent sexism. I think there's sometimes an assumption that women wouldn't be able to balance the family responsibility with the work or the stress of the situation. It's just so important to just ask the person what they want to do. I'm also happy to see the progress around more paternity leave and balancing those benefits for both men and women. All of us want to have a life where we can manage our personal and professional responsibilities the way we want, so I think that creates more equity in general.

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Q How do you ensure that diverse perspectives including those of women are considered in the decision-making process?

A McCombs: In all of the portfolio conversations that we have and thinking about how

we can maximize our impacts, our understanding of customers, it's really important to have the diverse perspectives of the team. I try to do that with team interactions. I'll let it free-flow and see how the conversation goes. But at the end of the conversation, if there are one or two people who haven't said anything, I really do like to call on them at the end and make sure that every voice is heard, and honestly, sometimes those are the best nuggets, right? ... the people that are very thoughtful, but maybe didn't get into the conversation earlier. I also try to be approachable and say, if there are any other thoughts, concerns, or ideas, please feel free to reach out to me and I will have those follow-up emails or meetings. I feel a lot of times maybe women feel less confident to speak up as quickly.

I advise them to lean into the meetings and be one of the first three people to speak in the meeting, even if you're building on someone else's idea. Even if you're just contributing, people know where you stand, and we can get the benefit of your experience and insights.

Q How do you see emerging technologies such as AI and machine learning shaping the future of medtech, and what opportunities do they present for women in the industry?

A McCombs: Certainly, with AI and generative AI coming onto the scene, we can't even imagine the possibilities yet as these capabilities are just coming to the forefront. The opportunities I see and that we're driving today are in two categories: One is around how we become more productive in doing R&D, and, in general, how we are running our business.

In R&D, we're experimenting and starting to scale certain solutions. For example, being able to use generative AI to improve the productivity and quality of code development as well as regulatory submissions and documentation, taking test reports, summarizing them, and putting it in a clear and concise format. The goal of these productivity initiatives is to free up our people to spend more time innovating, spending time with customers, doing robust design work, and less time on documentation and repetitive tasks. I see it [as] very similar for innovation for our

customers.

These AI tools can help with efficiency, integrating multiple data sources to help make things more visible and clearer to a provider for making decisions or to a patient. And over time, getting into automation and being able to automate simple tasks will free up our very stretched health care providers to be able to spend more time with the patient and handling the more complex tasks. You may have read about our microbiology automation tool with the BD Kiestra system. We have AI algorithms that can detect microbiology growth on plates in certain petri dishes. If there was no growth, you can triage those and allow the microbiologist [in a hospital setting] to focus on patients.

Q What are the most exciting opportunities or developments in medtech right now? How do you see women contributing to these advancements?

A McCombs: I see a big opportunity around AI and smart connected care. I also see a lot of opportunity in breakthrough science that's happening today to really understand biology, immunology, cell therapy. There are great women scientists who are contributing to that and BD is playing a role with our biosciences and pharmaceutical systems business. I think sustainability and health equity are coming more to the forefront over the last few years and those are big problems to solve, but they are also very motivating for me – how do we increase access to care? How do we minimize our footprint?

Q Can you share a moment where you had to take a bold or unconventional approach to solve a problem in your career?

A McCombs: I think in certain cases, taking a more holistic integrated view of how we innovate is important. One area where we're maybe taking an unconventional approach is rather than having our business units for all of our connected products, we're developing a cloud-based platform for all of our BD-connected products. That has benefits of common user interface and experience for our customers in the hospital systems or even moving into lower acuity settings. It allows us to have all of

that data in a format that can provide analytics to go after bigger challenges around health care workflows. It allows us to connect our products to the electronic health record within the [health care] system, but also have access to the data of our product and push upgrades or cybersecurity patches more directly versus having to go to every instrument and do individual upgrades.

Q When will this be a commercial product?

A McCombs: It's on our roadmap. I would say the next three years we will have that foundational offering and then we'll be building it out across all of our products.

Q What advice would you give to young women aspiring to enter the field of medtech or to advance their career within it?

A McCombs: It starts with you figuring out what you're passionate about and then pursuing that passion. I think sometimes we think a little bit ahead of ourselves about this like where I want to go or what I want to do next. But so much of it is about delivering results in the role that you have, exceeding expectations and being curious and then growing over time, and being open to new possibilities and opportunities that you may not have even imagined for yourself. I think those are some of the underlying things that helped me be able to make a career in medtech over the last 25 years.