

Food is Medicine: How Kroger Health uses technology to promote health equity

In a nation where healthy choices often take a back seat, Dr. Marc Watkins, chief medical officer at Kroger Health, advocates a transformative shift: viewing food as medicine.

Watkins is spearheading a mission to eradicate food insecurities, paving the way for a healthier America.

“If we’re going to change the way America eats, we have to lead around making sure we have a variety of foods in our stores that represents an adequate format of foods that makes sense for Americans to purchase at the right price,” Watkins says.

This week on the Health Disparities podcast, host Dr. Mary O’Connor and special guest [Marc Watkins, M.D.](#), discuss the strategy [Kroger Health](#) is using to empower customers to make informed and health-conscious choices at the grocery store.

The transcript from today’s episode has been lightly edited for clarity.

Dr. Marc Watkins: Healthy Communities are better for business. They're better for those that are living in the communities, it's better for economic stability. Folks are able to grow and develop and really reinvest in their own communities if they're healthy. If we're going to change the way America eats, and that's what we talked about at Kroger, we have to lead around making sure that we have a variety of foods in our stores that represent an adequate format of foods that make sense for Americans to purchase at the right price.

Dr. Mary O'Connor: You are listening to the Health Disparities Podcast -- a program of Movement is Life, being recorded live and in person at Movement is Life’s annual health equity summit. Our theme this year is “Bridging the Health Equity Gap in Vulnerable Communities,” and as always we are convening with a wonderful community of participants, workshop leaders and speakers. I’m Dr. Mary O’Connor, Chair of Movement is life, and I’m delighted to be joined by our guest today Dr. Marc Watkins. Dr. Watkins is a graduate of Meharry Medical College, with both an MD, and an MSPH, was a senior medical officer in the US Navy, a medical director with Concentra Medical Centers where he rose to become National Medical Director. He was Chief Medical Officer with The Little Clinic where he oversaw 215 clinics, and five years ago he became Chief Medical Officer with Kroger. Welcome Dr. Marc Watkins to The Health Disparities Podcast.

Watkins: Thank you for having me.

O'Connor: So Dr. Watkins, can you tell us a little bit about what you're going to share with us tomorrow when you give your presentation to the summit?

Watkins: I'd be delighted. And one of the things that you know, again, thank you so much for the opportunity to be part of the summit and be part of this time with you this afternoon. One of the

things that I really want to get across is understanding how impactful food can be to one's overall health. And how often it's kind of an afterthought, right? You know, sometimes it's: disease sets in and then we bring up how important it is to have a healthy diet. But what we've been finding and especially with our journey around food is medicine, which started more than 15 years ago at Kroger, we believe food is medicine as a dedicated, educated and personalized approach to eating and enjoying food to promote healthier lives and help prevent illness before it starts. So thinking about it as a preventive measure and my background in preventive measures, preventive medicine as well as in public health, sort of disease prevention is really important not only to me professionally, but at least to what we're thinking about at Kroger health. It's really thinking about how do we have healthy communities because healthy communities are really important to the fabric of of America. And we believe that having healthy communities promote economic stability. And we're going to talk a little bit about how economic destablity creates some of these health inequities. We've heard that this morning from one of your presenters, and how that creates a cycle that is just vicious in terms of creating these health disparities. So tomorrow we'll unpack how food can be a really important tool in the toolbox to prevent disease but also improve health, if there's disease present.

O'Connor: I think that most of our listeners on the Health Disparities podcast already appreciate how important food security is. And so before we go down that that road a little bit, I'm really interested in how the leadership at Kroger and Kroger Health came to embrace this because like you are our vanguard leaders in this area. I don't honestly know another, I'll say, major food corporation that is doing the work that you're doing on food is medicine and bringing into that concept the promotion of health equity and addressing food insecurity. So like, how did this big corporation come to see the opportunity, which I'm sure it's also a business opportunity but a business opportunity that is actually going to serve the needs of the community that the business is privileged to be located in?

Watkins: Well, I think you're right. And I think there's also as a 140-year-old grocer, we've been around since 1883, right? So we've been part of communities for for almost 140 years,. So it's sort of in our DNA and food is our core competency. And so as we think about, you know, food and food at scale to communities, it was incredibly easy for our CEO and Chairman Rodney McMullen to get behind this. So as we began to put literature and data together about the impacts of food, and let me just clear this up, it became clear to him that that there were two things running in parallel here, as we launched from our Kroger Foundation, Zero Hunger and Zero Waste, we realized that when we started about one in seven, Americans were going to bed hungry every night. Even during this time, over the past 8, 10 years since we've been in this program since 2017, pardon me.

O'Connor: I'm sorry, one out of seven, one out of seven going to bed hungry.

Watkins: That's actually unfortunately, Mary, gone to one to eight, right? So it's actually gone in the wrong direction. And that's despite many of the efforts we've done to address food insecurity, right? So since the launch of our Zero Hunger Zero Waste program and the impact plan in 2017, Kroger has given more than \$1.3 billion and donated more than 3 billion indirect

meals for hunger relief, which if you think about it really includes about 582 million pounds of surplus fresh food to our food bank partners, and others in communities that we serve. So we recognize there's still more to do. But as we've gone down that parallel road to address things like food insecurity, which, which means you don't have enough to eat, and then thinking about nutrition, security with the impact of disease, especially chronic disease, we recognize that many Americans don't have the right foods to eat so so how do we get on that journey? And so, as I mentioned, our our president, Colleen Lindholz at Kroger Health as well as our CEO of Kroger, Rodney McMullen, really was instrumental in understanding that healthy communities are better for business, they're better for those that are living in the communities, it's better for economic stability, folks are able to grow and develop and really reinvest in their own communities if they're healthy. And if they're not healthy, it's just really difficult for them to be engaged in that they don't do as well in school, they don't, sometimes have trouble, we know that children that are dealing with insecurity around food struggle sometimes in school, and so we recognize that that's an important contribution and then really level setting on how do we really, if we're going to change the way America eats, and that's what we talked about, at Kroger, we have to lead around making sure that we have a variety of foods in our stores that represent an adequate format of foods that makes sense for Americans to purchase at the right price.

O'Connor: I know our listeners would be so interested in learning about some of the ways that you've leveraged technology to help consumers make healthier choices.

Watkins: That's a great question. And right, so technology is advancing so rapidly, right? So I was reading somebody, just recently, the next 10 years will have more technology than we've had in the last 50 to 100 years, so it's moving pretty quickly. But that can be overwhelming. So we really, really want to make things simple for the consumer. And what we want to do is to give them opportunities to engage at their own pace. And so we've created a opt up nutrition scoring system that rates our food from from 1 to 100, and Dr. O'Connor, what was really cool about it is that it's it's color coded red, yellow, green and opt up means we want to move you from things that are in the red to yellow and the things that are in yellow to green. And we know that we can't get you you know, particularly from say, potato chips all the way to kale chips, but how do I perhaps if a chip like a potato chip, which the dietitians remind me, it really has three ingredients, potatoes, oil and salt. But you know, it's fried, and, you know, how do we maybe get you a format that moves you maybe from red into yellow that is maybe baked has a lower sodium format, right, so has fewer calories. And could that be healthier for you? And the way that we organize the scoring system, which provides a longitudinal purchase history, and scores the food, and so we get some dynamic scoring happening over time based on your purchases. So we know that we want less than 10% of your basket to be in the red. And we want 40% to be yellow, and then the rest 50% or more to be green. And we know that based on some of the studies that we've done internally, that a healthy score is about 610 for a family. So we've we had a small study that showed tight glycemic control, when compared to what A1C would look like, over time, those who had higher scores had better a A1Cs during that period of time.

So just for our listeners that may not be familiar with some of those terms, that's for people who have diabetes, and the A1C is a blood test that reflects how well their blood sugar has been controlled, because we know if somebody who's diabetic has blood sugars that are not well controlled, it affects their kidneys and their vision and all kinds of negative health consequences for poor blood sugar control.

Watkins: Correct. And thanks for the reminder. And that's really important. And that is, as I mentioned, the term is longitudinal but it's a record of about 90 days of how tight your blood sugar was controlled during that time. So to a look back about 90 days, so it tells you how well your blood sugar has been controlled. So you're absolutely right, Dr. O'Connor, it's impactful.

O'Connor: And the experience that you've been able to, to demonstrate longitudinally shows, share with the listeners what that has shown.

Watkins: And there's a couple of things there, right, because you know, over time, you know, behavior change is hard, right? But part of this also is helping people make the right choice, and helping them understand, and I'll get to where the other technology play happens here, but making the right choice the easy choice. What happens for us and happens for most consumers, they get busy, right? You think about all of our busy days, your staff, your teams, right? One of my nephew says ripping and running all day, and then you want to make a good choice, one of the things that we were really proud of is that you're able to use your mobile phone, use your smartphone, scan the back of a QR code, or one of the labels in our stores, and you get a profile about what that food is. And the nice thing about it is you can begin to tag that food based on your preferences. So if you're, you're vegan, you're vegetarian, you're looking for a hard healthy type of diet, you can actually label the foods in a way that you know, hey, this is right for me, maybe not so right. And then you're understanding what that score looks like over time. The next thing that that we found to be pretty influential, and we've had a lot of thought about this is: how do we then place our products on the shelves, where folks can have choices, but not necessarily have to make big leaps to find the healthier product, right?

O'Connor: So you're making it easier for me to make a small change, right?

Watkins: And then maybe, you know, you can scan it on your phone, if you're shopping in the digital space, be able to see those scores. And then we do something we call intelligent nudging. So there's some nudging that happens. So if you're looking at that potato chip, and that's just one you're looking at a potato chip right below, it'll scroll across and it'll say other shoppers like you have also purchased a healthier variety, right? Maybe it's a vegetable chip, maybe again, as I mentioned, it's something like a baked rather than fried or lower sodium, lower reduced fat. So those are those are options of this, we call that intelligent nudging that is running in the background, leveraged against some of the technology formats that we have to help with this consumer change, just slight nudging to to help them make better choices.

O'Connor: And and I assume the app is free.

Watkins: This is free. And so it's part of every one of our banners across the country. And that's part of the shopping experience: free for every consumer.

O'Connor: And how do you find adoption of use of the app to be? In other words, I would think that more educated shoppers may be more comfortable using an app and shoppers who are less formally educated may or may be less, this could all be my bias, but they may be they're less comfortable using an app, less comfortable as a general statement with technology, so some of the people that in particular, healthy shopping would benefit, meaning patients who tend to be of lower socioeconomic status, tend to have more health disparities are to be more overweight, obese, less mobile, hypertensive, diabetic, etc. So I mean, that population, which is the the really important population to support in terms of behavior change, how do you get them to adopt use of the technology, meaning the app?

Watkins: So as they opt in to be a loyal customer with us, and it's really about trust, at the at the end of the day, it's about trust. So once they opt in, and they become part of our trusted Kroger family, and, and we're there to support them through their journey, a lot of the information is collected passively, so they're not entering anything in. So this all happens at the point of purchase. So as they're checking out, their purchases are memorialized. The technology's tracking. And then if you've ever been in any of our stores, we'll ask you for your loyalty number or your Kroger number. And that's as you've opted in, because we want to be able to personalize things to meet you where you are around your shopping journey. And so that means, as we collect this data, right, your purchase data, we know a little bit more about you. And collecting, that doesn't mean that there's anything else for you to do, there's not another app for you to open if you're on our Kroger banner, if you're on our platform, which is our website, any of our native apps, this is already loaded. It's nothing else you need to do. You can just simply press nutrition insights, and your score pops up.

O'Connor: And then those insights would also lead me to options of healthier choices. Correct?

Watkins: Correct. Right. Because as I mentioned with in this, the technology, the way that it's set up, it's color coded.

O'Connor: I do like the simplicity. Green is go. Red is stop. Yellow is in between?

Watkins: That's right. And I used to say that it's almost sailor proof from my navy days, right? Red means stop. And, and so it doesn't mean that you can't ever have anything in the red, right? We just don't want that to be the primary bulk of your basket when you shop, right? Less than 10% means you can have, you know, a chips and maybe the sweets, but we don't want that to be everything.

O'Connor: My mother would use the term sin food.

Watkins: Yeah. And then let me just be clear that we don't want to demonize any food. But, by, because I think that sends potentially the wrong message. And the message we want to help folks go is that those foods should be in moderation, right?

O'Connor: Absolutely. Absolutely. Of course, what we're trying to do is, is nudge people to make some healthier choices, because we know that's going to impact their health now, and the likelihood of longer term chronic health problems.

Watkins: Right. You know, one of the things that with our research we found, and it's in conjunction with some of our affiliated academic medical centers that have worked closely to try to validate our food as medicine approach, we found that poor nutrition is the key risk factor for four main chronic diseases. And I think the first three will it will make a lot of sense to your listeners. Obesity, heart disease, type two diabetes, but I think the one that actually gets them the most is that obesity and poor nutrition is linked to 13 different cancer types. And 40% of those are the most, which accounts for 40% of all cancers in the United States. So we also know at this point that obesity now has replaced smoking as the number one modifiable risk factor for these 13 cancer types. So this isn't just about these diseases that we historically have talked about, and the primary ones that I'm mentioning, and you as a physician can understand this implicitly, you know, things like colon cancer, breast cancer, pancreatic cancer, these are you know, really have a tight correlation between your your weight especially if you're obese, you're at higher risk for this and then it also impacts your ability to recover if you do have these cancers if you're overweight and obese. So we understand that this is a huge impact. And these are driving most of the costs that we see in the country when it comes to what we spend on health care. And so we understand that, you know, proper nutrition, especially when we come to things like nutrition security needs to be addressed a bit more as we move forward.

O'Connor: You know, Dr. Watkins, one of the the facts that I always found so interesting, and almost sad is that so many people who are overweight, you would think that they had adequate nutrition. But a lot of overweight people are actually malnourished. So you look at their profiles, and as a surgeon, this was particularly important because if somebody is malnourished, regardless of their weight, their risk of not healing their wound after surgery goes up much higher, which then increases the risk of an infection. So it isn't that you can just look at somebody and know for sure that their nutritional status is actually okay.

Watkins: Right. And what you're calling out is that many obese folks are in a perpetual state of metabolic dysregulation that creates some of the things that you're describing around poor wound healing this persistent state of inflammation. Actually, some may even have nutritional deficits even being and I'm talking about some of the micronutrients, they actually may have that despite being over their body mass index. But as we think about how we can help as the nation's largest traditional grocer, it's around providing access, really providing information, education, ease of use to make sure that folks and our shoppers have access to healthy nutritious foods now, and moving forward. I think I also want to add, while we're talking about health disparities, and potentially marginalized communities, we've worked very diligently with the USDA, leading up to this October by creating an opportunity for EBT and SNAP benefits to

be used for delivery and a pickup in our stores. So back to that question that we had about technology that, that that whole digital ecosystem, as someone who's shopping, we have tagged, in all of our banners stores, when we call all of our banners around the country, or different divisions that they come the program banner, whether you're on the east coast or out in the west coast, you'll be able to see on our in our digital ecosystem, tags around EBT, and snap. And now those are available for pickup and delivery. That may be ability to ease some of the headwinds that face those communities that may not have a traditional grocery store in their neighborhoods, so they can come and pick it up or they can have it delivered. Now, it's not going to replace having the convenience of a grocery store in the neighborhood, but it's a step in the direction to get them access to healthy nutritious foods that have a covered benefit that could be easy for them to to pick up, that food is also scored with our opt up scoring system. So they'll know right away that if that fits their profile, and I can also personalize that. As you know, there are you know, 20 to 40% of all SNAP benefits go on used. And so as clinicians are thinking about ways to help with healthier items and selections, having the clinical teams be able to understand that, hey, this family can benefit from this healthy food and it's available for delivery and pickup.

O'Connor: So Dr. Watkins, this is just an amazing program. And tell me if I'm a shopper and I am improving my healthy purchasing history, do I get some recognition of that from Kroger?

Watkins: So we're working through programs that address, and I think what you're talking about is the gamification...

O'Connor: Yes, exactly.

Watkins: ...of how that would work to incentivize the behaviors. What begins to happen and and I believe one of the offline questions that we have is: How are we weaving in our consumer packaged goods and suppliers of food into what we're doing and so, that that becomes part of the the whole personalization of what we are then providing to our customers through couponing discounting, encouraging that behavior. So if, if you are seeing within our data capture that Mrs. Jones, and I use her a lot as an example, Mrs. Jones now is moving more towards yellow and green items in our opt up scoring, we want to incentivize that behavior through that kind of personalization for things like discounting and couponing and so that then follows through. So we use a lot of what we call Kroger Precision Marketing. And that is a way to further personalize messaging to Mrs. Jones that's very unique to her shopping habits and her family's shopping habits in order to keep her engaged with with us and many retailers do similar types of things. But we believe that this is one of the best in class opportunities to continue to engage with customers over time.

O'Connor: Speaking of best in class, I know that your team was invited to the White House for a conference, probably 2021, maybe? Tell us a little bit about that.

Watkins: Absolutely. And so we were very fortunate to be one of the few retailers that were part of this White House Conference on hunger, nutrition and health aimed at ending hunger and

increasing healthy eating and physical activity. And so some of the things that we committed to the administration in the White House was to continue to mobilize about \$250 million alongside Rockefeller Foundation, American Heart Association, to build out a national food as medicine, research initiative to improve the health and well being of millions of Americans around the country. We believe we want it to provide opportunities to bring food research and the science, front and foremost, so that clinicians can make better decisions about how they inform their patients. And then we want to do that, with the eye of reducing the total cost of care and American I think one of the things that we, you know, we initially began to talk about is that we spend way too much on healthcare, right?

O'Connor: I think we all agree with that.

Watkins: 0.1 trillion to 4.2 trillion, I think the congressional business office claims that could be even more. We're sicker than we've ever been in this country. There's six out of 10 Americans have a chronic disease, you know, four out of 10 have more than two, right? So that is a tremendous amount of disease in the country. And there's an analysis by the American Action Forum that says that those four nutrition related chronic diseases that I mentioned, chronic obesity, heart disease, type two diabetes, and cancer among 18 to 64 year olds. The key here is 18 to 64 year olds working adults. Really, it accounted for about \$16 trillion from 2011 to 2020.

O'Connor: That's a lot of money.

Watkins: Yeah. And that's really after accounting for direct health care costs, loss of productivity and wages, right? So these folks become unproductive, they're unable to work as long, they're not productive as work, they're costing the system lots of money. So whether it's employers, that's just a huge drain. So we believe that...

O'Connor: And Mark, let me just, I want to highlight for the listeners, you know, these numbers that Dr. Watkins just shared are direct costs, but there's a huge amount of indirect cost. For every one of those individuals that is disabled, not working, there is family members that have to support this person. There's loss of productivity for the family member because of their need to support the individual. So there's, there's a ripple effect that happens that is really extensive.

Watkins: Yeah. And I think one of your speakers this morning, Dr. Joe Greer, he mentioned that this then creates this vicious cycle of you, you are just almost spinning that you can't get yourself out of the cycle of poverty. You can't get yourself away from some of these health inequities that continue to happen. It becomes harder and harder when many members of the family now are out of the workforce because of poor health.

O'Connor: All right, I want to bring our our podcast recording to a bit of a close and ask you one more question. What are some priorities that you will be setting next year for Kroger Health to help address health disparities even more so than you're doing now?

Watkins: That's a great question, I think really doubling down on the good work that we've been doing and 2023 and carry that forward to 2024 especially around our continued funding of our research initiative to improve health and well being with the Rockefeller Center, American Heart Association and others. We want to continue to invest in amplifying our message around food as medicine, and then also really begin to change the narrative that food is medicine, especially addressing nutrition security is really for all communities. We can uplift all communities by having those communities be healthy. It's the right thing to do. It's also good for America. You know, while we were talking at dinner last night, it's clear that one of our messages is that Kroger is committed to delivering a value for consumers, but also doing the right thing when it comes to healthier formats of foods across our banners in the United States.

O'Connor: Well, I grew up with a Kroger grocery store, so I always have an extra soft spot for Kroger.

Watkins: I appreciate that soft spot. Thank you so much.

O'Connor: Well, that brings us to an end of another episode of the Health Disparities podcast. Very grateful. Dr. Marc Watkins, Chief Medical Officer of Kroger Health joining us today. And thanks to all our listeners for joining us on America's leading health equity podcast. Until next time, be safe and be well.