An Interview with Kim Williams, M.D.

by Mark Huberman

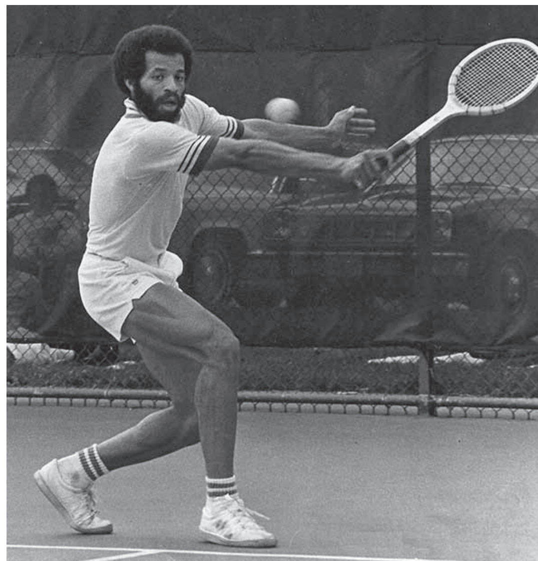
Dr. Kim Allan Williams received his undergraduate degree at the University of Chicago, followed by medical school at the University of Chicago's Pritzker School of Medicine. He completed his internal medicine residency at Emory University, and overlapping fellowships in cardiology, clinical pharmacology, and nuclear medicine at the University of Chicago. He is board certified in internal medicine, cardiovascular diseases, nuclear medicine, nuclear cardiology, and cardiovascular computed tomography. Dr. Williams joined the faculty of the University of Chicago in 1986. He served as professor of medicine and radiology, and director of nuclear cardiology at the University of Chicago Pritzker School of Medicine until 2010, when he became the Dorothy Susan Timmis Endowed Professor and chair of the division of cardiology at Wayne State University School of Medicine in Detroit, Michigan. In 2013, Dr. Williams assumed the position of James B. Herrick Professor and Chief of the Division of Cardiology at Rush University Medical Center in Chicago. He currently serves as the ACC Past President 2016. You can follow Dr. Williams on Twitter at @cardio10S, and find him on the Rush University website (visit https://doctors.rush.edu and search for "Kim A. Williams"). This interview took place at the Real Truth About Health Conference in Long Island, New York on February 3, 2019.

Almost every person who comes to the whole-food, plant-based movement has a story about their journey and often it relates to a health issue. Was this the case with you?

Somewhat. I was an avid tennis player and found myself going through a transition when my kids were aging out of National Junior Tennis tournaments, and I was getting to the point where I was no longer playing tennis twice a day, every day. My cholesterol also starting going up to the point where my LDL was 170.

Since you are a cardiologist, that had to have been a concern.

It was a major concern. It was a time when doctors' tolerance for LDL cholesterol was going down, but my number was going up. Believe it or not, I went plant-based the day I discovered it was 170. When my cholesterol was measured a few weeks later, it was in the normal range.



Dr. Williams playing professional tennis in August 1978.

Was there a book, lecture, or article that turned on the light for you?

I had heard about the work of Dr. Dean Ornish and plant-based nutrition, so I knew that animals were a source of cholesterol. I put two and two together and thought the best thing I could do is follow the disease prevention approach. I had always followed a somewhat healthy diet since childhood, and I hadn't eaten any red meat since I was 11 years old. However, little did I know that the cholesterol content of chicken and fish were also quite high.

So, as a result of your cholesterol incident, you really went

completely whole-food, plant-based that day?

Yes, cold turkey, but without the turkey!

What did your wife and kids think of this transition?

It was a little difficult. Like me, they had also been eating relatively healthy, but there was still chicken and fish in the household, and I just wasn't partaking in it anymore.

Lots of folks who come to this health movement do so out of concern for animals. Was this also a motivation for you?

My initial motivation was cardiovascular health, but I certainly have come to share the concern for animal rights, protecting our environment, and being able to feed the world's population. I wouldn't want to rank these, but from my myopic point of view, we need to be very focused on the fact that heart disease is the number-one killer of Americans. It's time for us to focus on that. But if animal rights, the environment, or social concerns can help motivate people to eat fewer animal products, that's great.

The issue I have is that a lot of people in the plant-based and vegan communities are eating plants in a way that is not healthy. They are consuming refined flour, refined sugar, white rice, and things that are not healthful. In fact, the consumption of such products actually has more of an impact on cardiovascular health than eating animal products.

I read a report in *USA Today* that heart disease afflicts nearly half of the U.S. population. Is the problem really that big?

It certainly is, and it's growing. We used to say that one-third of our population has some sort of cardiovascular disease, but if you look at the African American population, it is even higher—around 48%—and it's growing around the planet. And why is that? People are doing less work in the fields and are being enticed by high-sugar, high-fat, and high-animal-protein foods. What you end up with is a worldwide epidemic of heart disease that keeps growing.

But haven't all the drugs, stents, bypasses, and transplants improved mortality?

Yes, they have dramatically improved mortality. And the idea that mortality is increasing (in the United States since 2015) is really very chagrining for those of us who have been in this space since the seventies. We are getting to the point where the lifestyle of people in the United States has outstripped our ability to save their lives. We're still doing those procedures and still saving a lot of lives, but lifestyle is catching up to us. When you do bypass surgery, and the "redo," and later the "three-do," at some point that person is likely to die of cardiovascular disease.

The Centers for Disease Control (CDC) state that the incidence of obesity and diabetes are also going up, as well as their prevalence. The prevalence goes up because we take care of people and stop them from dying. Keep in mind that every time you do CPR successfully, you have stopped a death. You've increased the prevalence of heart disease because the person didn't die.

Are you saying that while the length or quantity of lives has been extended by these many procedures, the quality of those lives is not always there?

Yes. But more importantly is the quality of life that can be improved significantly by adopting lifestyle changes instead of resorting to surgery and drugs. About three months ago, there was data published in *BMJ* establishing that by simply reducing the amount of animal products in a diabetic's diet, and adopting plant-based nutrition, not only does diabetes control improve, but a lot of other things improve, such as better mood and less depression. So, a healthier diet improves life. It's not just about longer life, but a better life.

> *"A healthier diet improves life. It's not just about longer life, but a better life."*

What are your thoughts about the mushrooming number of folks going on dialysis? What kind of quality of life are these people experiencing?

I have patients who say, "I'll never go on dialysis, no matter what." But when faced with a life-ending crisis, they change their tune and say, "If this is what I have to do to live, I will do it." It is very challenging for the patient, though, since they have to spend several hours per day on the enervating procedure. What kind of a life is that? A very, very difficult one—and a costly one. The moment you begin dialysis, you qualify for Medicare, which covers every aspect of this care. Medicare spends about $86,500 per person, per year on dialysis! It's a difficult financial burden for the Medicare system.

In a prior *Health Science* interview, Dr. Caldwell Esselstyn Jr. observed how ironic it is when he hears people talk about how extreme a whole-food, plant-based diet is, but how those same people don't find it extreme to have their chests opened up for heart bypass surgery, as well as treatments like dialysis. Are you amazed by that as well?

I think that if most people just stopped and thought about it, they'd recognize it. But this "stopping to think about it" is not happening. The reality is that nearly everyone who eats an animal product, who's overweight, and who smokes a cigarette thinks that the consequences are not going to happen to them.

Dr. Alan Goldhamer would say people are caught in the

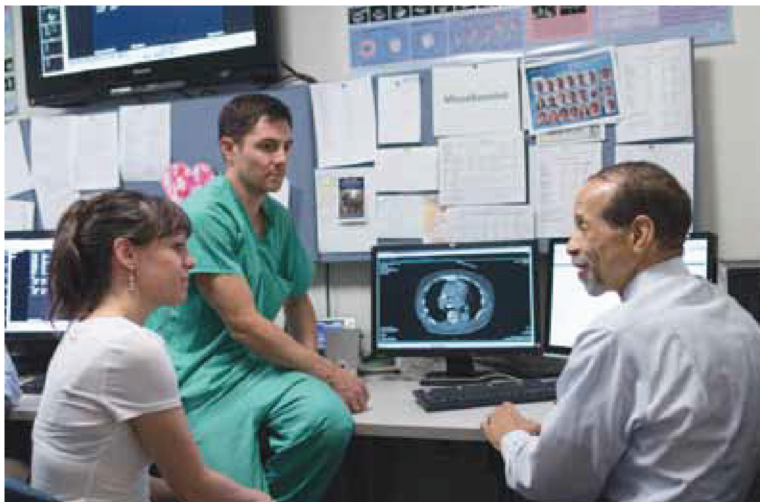
"Pleasure Trap."

Yes, that's very well said.

As an African American cardiologist, are you unique in the plant-based movement? Do you have African-American colleagues?

Actually, we have quite a number of folks who are very interested in this movement; it is encouraging. In fact, the person who taught me the most about this was an African American cardiologist from Washington, D.C., Dr. Tazwell Banks. Unfortunately, he passed away a few years ago, but he was a fan of Dr. Ornish's and worked hard to get the entire Association of Black Cardiologists to stop serving bacon and eggs at meetings. Sadly, we still have medical meetings where the food served remains atrociously unhealthy.

And speaking of the African American community, diet is particularly important since, for large sections of the community, their food has been terribly unhealthy for generations. It is something that came down from slavery, where eating low-cost, high-fat food was the norm. It has been in our culture for a long time, but we have to somehow break with that tradition.



Dr. Williams with fellow physicians, Marie Francis Poulin and Andy Appis.

"Once the patient makes the connection between their diet and their heart attack, they begin to make broader connections to their health."

Is that what Dr. Joel Fuhrman calls "Fast Food Genocide"?

Yes. In fact, there was a publication issued about eight weeks ago by the CDC that looked at the amount of fast food consumed by Americans, and it is still going up. It's most prominent in the 20- to 40-year-old age groups and in the African American community. It was reported that one-third of people in these groups eat fast food every day—every day!

What's the nature of your cardiovascular and cardiovascular radiology practice?

I do a lot of teaching in general cardiology, but my research has been mostly in cardiac imaging, making diagnoses, and quantitating how poorly the blood flow is to the heart or how poorly the heart squeezes. The rest of my career has been focused on conducting research, teaching and, of course, advocacy.

Do you have a private practice, and if so, can patients schedule appointments with you if they have a heart problem?

Yes, I do, it is a university group practice, and I meet with patients several times per week. People come from the south and west sides of Chicago, where I work, but they also fly in from across the country and as far away as Dubai!

How do most people find you?

Most find me on the Internet, and they know what they're getting when they schedule an appointment with me: a lifestyle coach and heart disease management through nutrition.

When your fellow cardiologists see the clogged arteries of so many of their patients, what do they think has caused this, and why don't they make the connection to diet and lifestyle?

I think you used the right word "connection," and they just aren't making it. About a year ago, I set out to change that with the interns and residents who make rounds with me in the coronary care unit. I help them make the lifestyle connections. They witness me talking with the patient and trying to make sure they are clear about what brought them here.

Patients will tell me, "Well, I had a heart attack," to which I say, "That's right. How did that happen?" And the patient replies, "I had a blocked artery," to which I say, "That's right, but what is it blocked with?" and the patient says, "plaque." From here I say, "That's exactly right. What is plaque made of?" and the patient says, "Fat and cholesterol," and I say, "That's true; and where did the fat and cholesterol come from?" At that point there is always a little pause before the patient realizes and admits, "I ate it." I find that once the patient makes the connection between their diet and their heart attack, they begin to make broader connections to their health.

What about your colleagues? Why don't they make the connection? Where do they think the blocked arteries come from?

I don't know, but given that physicians are some of the worst patients, because of their own unhealthy lifestyles, they probably don't want to look too closely at it. It's a major problem, not just for the physician's patients, but for the physicians themselves and their families. Sadly, one of the leading causes of death among heart doctors is heart disease.

Dr. John McDougall often argues that one of the problems with the current medical model is that physicians don't get paid to really talk to patients, they get paid to "do things" like perform procedures and prescribe medications.

That's true. Fortunately, where I practice, at Rush University Cardiology, we have a lot of plant-based cardiologists, so that is not the case for us.

Are your fellow doctors inspired by you?

I'm sure some are. But there is an old joke I like to tell my students: "There are two kinds of cardiologists: vegans and those who haven't read the data!" It may be a joke, but some of the people who work for, and with, me took that very seriously. A bunch of them read the data and then said, "Why would I ever eat an animal product?" So, it's great when that happens.

I can often tell when one of my colleagues has changed their diet. I see them losing weight and moving down the hallway a lot faster than they used to. And that's happened so many times. Once a physician goes plant-based, they tend to influence their patients and other colleagues. I see our medical assistants and our nursing staff improving their health also, and that's great.

"Plant-based patients don't come to the cardiac care unit, don't go to the cath lab, and don't need stress tests."

Interestingly, plant-based patients don't come to the cardiac care unit, don't go to the cath lab, and don't need stress tests, so Rush Cardiology doesn't earn money from these things from these patients. But it works out because we can see more new patients, get them into the practice, and work on getting them well.

Is it different for you because you're in a university environment?

Perhaps. As a highly ranked university, we always have a backlog of patients, so it's easier to do more plant-based nutrition and more prevention. The good news is that we don't have to see the patients every six to eight weeks. We're seeing them every six to eight months, and that frees up time for new patients. The practice is thriving, however, because there's such a disease burden, mostly coming from the south and west sides of Chicago.

Who pays for all of this progressive care?

Does insurance cover it?

We take a variety of insurance types. I would say that because of the Affordable Care Act (Obamacare) there are fewer uninsured patients. We also partner with Stroger Hospital (the old Cook County Hospital in Chicago) and take care of people who have an inability to pay.

You mentioned that your specialty is cardiovascular radiology. Should people be concerned about the extent of exposure to radiation from the battery of tests that get routinely ordered?

This question has two answers. One is that no one has ever proven that diagnostic imaging leads to more cancers. There are a lot of theories and a lot of population studies suggesting this; however, because of the theoretical concerns, there has been a dramatic decrease in the amount of diagnostic imaging and radiation burden to our population.

In my view, every technique, whether it's the cath lab or PET scans, have actually been pretty good all along. Since about 2009, medicine has been focusing on decreasing diagnostic radiation exposure. Was it necessary? Maybe not, but why not use as low an exposure as is reasonably achievable for diagnostic purposes?

In your experience as a cardiologist, will folks who adopt a plant-based diet significantly reduce their hypertension and other heart-related problems?

Hypertension shows one of the fastest improvements following the adoption of a plant-based diet. This way of eating also lowers cholesterol and insulin requirements so that type II diabetes improves dramatically. And as a result, reliance on medication decreases. In short, all of the major risk factors are diminished with plant-based nutrition.

Would you agree with Dr. Esselstyn when he states that so many of the degenerative conditions epidemic in America, like cancer, heart disease and diabetes, simply need not exist if people adopted a whole-food, plant-based diet?

Of course, and I would add that we need to start with the children. We need to have healthy schools, and we need to have the children teach their parents that they should be eating a whole-food, plant-based diet, and minimizing or eliminating animal products. If we start there, the obesity epidemic will improve and we will end up with healthier generations. And then when these kids start having kids, those kids will know.

Are you familiar with the studies published by Dr. Alan

Goldhamer on the positive impact of water fasting in reducing hypertension?

Not personally, but a good friend of mine is about to go to Alan's TrueNorth Health Center in Santa Rosa, California, and I will be interested to see what happens. In theory it should work. Take, for example, a hockey player. He breaks his jaw and he gets it wired shut and has to drink through a straw while it heals. What happens? His weight goes down and his blood pressure goes down along with it. I think if Dr. Goldhamer can get people to undertake a water fast and then make a permanent behavior change in terms of diet, that is great. I think the main question is sustainability.

"Whether a patient follows the McDougall 'starch' diet or the Fuhrman 'Nutritarian' diet, they will get good results," says Dr. Williams.

One of the few controversial issues within the whole-food, plant-based health movement involves the avoidance or incorporation of nuts and avocados. What do you think about these foods? Are they harmful or healthy for the heart?

In my view, whether a patient follows the McDougall "starch" diet or the Fuhrman "Nutritarian" diet, they will get good results. I would love to be able to answer your question more precisely, but it would require a randomized trial between each type of diet, and we're a long way from doing that. In my opinion, we need to get the general population thinking more about plant-based nutrition, and then we can start debating the points around the edges.

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The two things nearly all of your colleagues seem to agree on is the need to avoid added oil and sugar. Do you agree that neither has a place in a whole-food, plant-based diet?

In the case of sugar, yes. And it's not just sugar, it's any sweetener since just about all of them increase insulin levels.

On the oil side, I'm not sure it's all that clear. Polyunsaturated and mono unsaturated fats can actually improve cholesterol, and they don't have the mortality associated with them that trans fats and saturated fats have. Dr. Esselstyn recommends his heart patients avoid any refined oils, as well as any plant foods that are naturally high in fat, like nuts and avocados. This is not just theoretical to me, because so many of my patients are overweight, and as McDougall is fond of saying, "The fat you eat is the fat you wear." So, I do prescribe the Esselstyn diet for anyone who is overweight or obese.

From a calorie-dense standpoint, aren't all oils among the most calorie-dense foods?

Yes, which is why 90% of the time I am recommending that my obese heart patients follow the Esselstyn diet.

And what about salt? Added salt seems to be in everything, and you can't pick up a jar of organic peanut butter or whole wheat bread without being bombarded with it.

The benefit or harm of consuming salt is also a little complicated from a scientific standpoint. But you are right, we are seeing salt added to everything. Fortunately, in the U.S. we have labeling requirements, and people can simply read the food labels to become more aware of what they are consuming. The Nurses Health studies have shown that consuming more than 2,000 milligrams of sodium per day increases mortality. Hopefully, through publications like yours, people will become more conscious about the amount of salt they are getting.

Do you avoid added salt, oil and sugar in your own diet?

I never add salt and I rarely add sugar. For a long time, I was your typical sugar-eating vegan, and I was so happy that Oreos had gone vegan. That was okay until the sugar data came out, and then I dumped sugar. I will occasionally consume some sugar if somebody offers me a vegan brownie, maybe once or twice a year. I'm probably well below the 1500 milligrams of sodium a day that is recommended by the American College of Cardiology 2017 Hypertension Guidelines. And I also think that every

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American, particularly every African American with a family history of hypertension, should be avoiding added salt.

When lecturing, Dr. Williams will point out that a serious health crisis is the number-one reason people are moved to change their diet.

I watched a video of one of your lectures last year, from the *Real Truth About Health Conference,* and an audience member asked you to offer your opinion as to the benefits of juices versus smoothies, and you responded with the observation, "In God we trust, everyone else bring the data!" Did I quote you right?

You did, but I was not the first to say this. The point I made was that it is important to understand that there can be unhealthful things in the world of plant-based diets. When it comes to juices, you are separating the sugar from the fiber, and that is not healthful. It's like taking the control rods out of the nuclear reactor and leaving the uranium to go nuclear. We really need that fiber to stop the rapid absorption of the sugar. So, when you drink a smoothie, you've got all the fiber and the sugar together. When you're juicing, that pulp is discarded and you're drinking what's left.

What about the argument the pioneers of our health movement made about digestion beginning in your mouth, and that if you just drink it all down, you have lost some of the digestibility?

I'm sure that's true. There is a young Irish nutrition expert, Conor Kerley, who popularized the concept that our moms always taught us, about the importance of chewing your food. He was talking about the role of saliva in increasing nitric oxide production and improving the nutritional content.

In your experience, why do people find it so difficult to change their diet and lifestyle?

I think a wise man once said, "Culture eats strategy for lunch." What this means is that you could come up with all sorts of logical reasons why someone *should* change their diet, but if you don't change the *culture* that surrounds them, they will find it very difficult.

It's a sensitive issue, particularly where the African American diet is concerned, which a 2015 study published in *Circulation* showed was the unhealthiest diet in the United States. It's characterized by a lot of organ meats, fried food, and sugar-sweetened beverages. They don't have yams, they have candied yams. This type of diet increases kidney disease, heart attacks, strokes and death.

How do you change something that is handed down generation after generation? At some point we've got to break the cycle. In the African American community, I think there is room for hope in our churches, which are beginning to recognize that they've been part of the problem, with all of their dinners of fried chicken and high-fat foods. I think we're getting to the point where we've got enough momentum to change that, and if we do, we can actually help the entire society, not just the African American community. In addition, healthcare costs will go down if we all focus on nutrition.

> *"How do you change something that is handed down generation after generation? At some point we've got to break the cycle."*

In your experience, what specific things get people to change their diet?

If I had to pick one thing, it's probably a serious health crisis. If you're a smoker and are having a heart attack, you will end up in the cardiac care unit. The cardiologist will tell you that you'd better stop smoking or you'll die. This crisis is two to three times more powerful than any other mechanism of smoking cessation. And this is much easier in cardiology than in other specialties, because the patients are typically coming to you with some huge problem, and if they think they're going to die from it, you have a teachable moment.

Of course, not everyone comes in willingly to see their doctor in a crisis. Sometimes they're dragged in by their family. But for the most part, people are there because they want to get healthier, so they're likely going to listen to you. This

is helped when they see you've got a successful practice where people do extremely well, and where we can assure them that once they change their diet, they are very unlikely to experience a cardiac event.

"Down the road, patients given better food are going to have fewer repeat procedures," says Dr. Williams.

Is there anything else that gets people's attention about changing their diet and lifestyle?

I would say the best weapon outside of the coronary care unit scenario is having a vegan daughter! Vegan daughters really seem to have a big impact if their dad or mom has a serious disease. All of the sudden the daughter looks a whole lot smarter and the parents start listening to her.

Outside of this, I think having an education and doing well financially are big factors. People who have more money and who have a graduate degree seem to have an easier time adopting a new dietary lifestyle.

Do you think that people without a lot of money have a more difficult time adopting a whole-food, plant-based lifestyle?

It can be more expensive if you're in an inner-city "food desert" and have to drive far to the suburbs to get decent produce and unprocessed food. But it doesn't have to be more expensive for most people; it just requires some level of organization and planning.

When you walk into the Rush University Hospital, is there a cafeteria like the one at the Cleveland Clinic, where you find franchise vendors like McDonalds and Subway?

At Rush University Hospital, we don't have any commercial entities with their typical fast food. There are some chain restaurants, but fortunately our cafeteria also has a vegetarian menu.

Following cardiac procedures, do you think people would recover faster if they were served plant-based foods?

I don't know whether that would make much of a difference, but it might. I do know, however, that down the road, patients given better food are going to have fewer repeat procedures, and that's what we're really aiming for.

It sounds like you've had a nice impact on your colleagues and students. Do you find that there is a growing awareness in your profession of plant-based nutrition?

I did feel there was an impact at the American College of Cardiology during my year of presidency, where I was instrumental in setting up and galvanizing the nutrition workgroup of the Prevention Section, and we have been able to author several publications, and we have several in the works.

One of the first publications from the group was a sad one. We did a survey of our American construct cardiology membership about nutrition education. When we asked, "Do you feel like you have an expert level of nutrition education to advise your patients?" the answer came back 1% for of our practicing physicians and 0% for of our trainees.

So, there's still no significant education in nutrition in medical schools?

Our study was three years ago, and we haven't seen any change yet. We also haven't changed the cardiology fellowships, but we are changing the national meetings. Every time we put on a nutrition symposium at the ACC meeting, the room is full!

How do you eat when you travel? Do you pack a bag of food to take with you?

Yes, but when I run out, I am in trouble. In fact, I need to end this interview soon so I can actually get some food before my next meeting. It is often a challenge, but I use the Happy Cow app on my phone to find out where the vegan restaurants are.

Last question. Are you optimistic about what's happening in your profession?

Yes and no. I think nutritionally we're doing a little bit better, but it's slow. However, I'm very concerned about the issue of burnout among my fellow physicians. There are a lot of downsides to being a physician in terms of depression, addiction, divorce, and for some, even suicide. And these issues are not being sufficiently addressed.

Dr. Williams, it's been a pleasure.

Mine as well!