Discover Healthier
Episode 4: Heart Disease

Speaker	Start time	Dialogue	End time
Azania	0:01	Welcome to Discover Healthier: everything you need to know about health brought to you by Discovery Health. I'm Azania Moska. You can join the conversation as we explore some of the most pressing matters in the healthcare environment today. Our wide variety of topics and specialist guests will empower you to care for your health now and in the future. Heart disease is deadly. While most of us know that an unhealthy lifestyle can cause high cholesterol or high blood pressure, how well do we understand the real consequences of these conditions like heart attacks or strokes? And what can you do to prevent heart disease entirely? And should you be at risk, what are the early warning signs? If you are diagnosed, what is actually the best possible approach to your care? To guide us through this conversation, to help us understand heart disease a lot better, I've invited Dr. Nqoba Tsabedze who is an Academic Head of Cardiology at Wits, and also Clinical Head of Cardiology at Charlotte Maxeke. And joining us is Dr. Noluthando Nematswerani and she's the Head of Clinical Policy at Discovery Health.	1:15
Azania	1:15	Welcome to both of you. Thank you for having us. Thank you for having us. This is a big conversation. Heart disease is very broad and so I'm hoping that we'll be able to touch on the most critical aspects of the condition. But in a nutshell, what is heart disease?	1:29
Nqoba	1:29	Thanks, Azania. Heart disease is quite broad and it's really a conglomeration of medical conditions that ultimately culminates in probably three principal prototype presentations, where either you will complicate with stroke, heart attacks, or peripheral vascular disease. And there are key risk factors that are drivers of this entity such as high blood pressure, high cholesterol, and these are all conglomerated around metabolic syndrome and phenotype, also associated with diabetes. But the most common entity that at least we have data on is ischemic heart disease itself, because often patients who complicate with stroke either die at the same time of event or as significantly affected in terms of functionality, and hence, we hardly get to hear the stories and exactly what happened. But those with heart attacks generally live to tell their story.	2:28
Azania	2:28	Right. And is this true or not, that once you have a heart attack or an episode, that it's likely to happen again?	2:35
Nqoba	2:35	In the acute setting, yes, you're still at risk, but what simply it means is that you are at risk and one needs to modify the risk factors. So as I mentioned earlier, hypertension, high cholesterol, stress environment, lack of exercise, eating unhealthily, poor sleep patterns, etc. All of these work together synergistically to ultimately culminate with having an event. So if you've had one, you're most	3:07

		likely at high risk and one needs to manage the risk control that.	
Azania	3:07	But I want to go back to what you've just mentioned now- some of the contributing factors. Let's also loosely define hypertension. What is happening within the body when we say we have high blood pressure?	3:17
Nqoba	3:17	So high blood pressure simply means that the pressure within your arterial network...So the body is a network of tubes of which the heart is the center, the heart pumps, and ejects oxygenated blood with nutrients to the rest of the body. And these vessels are called arteries and they carry this very precious blood to the rest of the organs of the body. And what happens is in the process of atherosclerosis, we get a buildup of dirt or what we call plaque, which is accelerated again by hypertension, smoking, high cholesterol levels, and this plaque ultimately closes or occludes these vessels and then one manifests with either a stroke or a heart attack, or a blocked artery that supplies legs to the lower limbs with peripheral vascular disease. So in a nutshell, that's really the mechanism or the drivers of atherosclerotic cardiovascular diseases.	4:13
Azania	4:13	So if I'm- in a layman kind of way of explaining it, as you said, we have this tube, but then at some point in the tube, there's this buildup that causes a narrowing in certain parts. Therefore, the blood cannot flow the way it's accustomed to flowing which faces a lot of pressure, even more pressure-	4:31
Nqoba	4:31	Okay, so high blood pressure comes in two forms. You have essential hypertension. So naturally, as you get older, our blood vessels that carry blood become harder, less compliant. So as your heart pumps blood, your blood vessels are elastic and they can accommodate and able to compensate for the ejected blood. But as you get older, they fail to do so and hence your blood pressure goes high because they are less compliant. So it's like a balloon. Imagine when you blow a balloon. The balloon can take the air, it just expands, the pressure inside the balloon remains constant. But if it was harder and you force air into that balloon, the pressure goes higher and higher. And that's what then (for hypertension specifically) will cause retinopathy, renal dysfunction, and also accelerated atherosclerosis, which is the plaque buildup in your middle sized arteries.	5:22
Azania	5;22	It's all so fascinating. But if we stay with cholesterol, cholesterol is often quite confusing because there's good cholesterol, bad cholesterol, but even bad cholesterol can be good for you...it can be quite a maze. Can you just explain cholesterol in relation to heart disease?	5:39
Nqoba	5:39	So broadly, we've got good lipids and bad lipids. So people generally will say, "Ah, it's fat. It's bad, stay away from it." But you've got certain fats which are usually poly unsaturated and those are your plant-based oils, such as olive oil, avocado oil, etc. Coconut oil. These are polyunsaturated, these are healthy and in	6:17

		fact the body uses these for maintaining its own homeostasis and repairing itself accordingly. Then you've got other fats, which are bad fats. And these are generally animal fats that you find in your red meats, etc, processed meats, etc.	
Azania	6:17	It's that trim on the steak.	6:18
Nqoba	6:18	Yes, yes, and those are poly saturated fats. And those are the ones that accelerate the blockage of your arteries, which then leads to the manifestation of atherosclerotic cardiovascular disease which can present, as I said earlier, as a stroke or heart attack or peripheral vascular disease.	6:35
Azania	6:35	Right. I'm hoping that we've done justice to understanding what is happening in the body, but who's most at risk in our society?	6:43
Noluthando	6:43	So the people who are at risk are those people who don't exercise, who don't look after themselves in terms of their diet. When we consider, you know, hypertension, specifically focusing on the diet itself, we talk about people who are consuming diets that are high in salt content, and also high in saturated fat. So if you eat a lot of red meat, then your risk of cardiovascular disease is increased. But we also look at body mass index, which is obviously your weight versus height. And we know that a healthy BMI which is a body mass index should be below 25 kilograms per meter squared. So we always say once you get to the overweight range, your risk for cardiovascular disease increases, which is why we always encourage people to screen. So you screen for blood pressure, you screen for BMI which is a way to indicator. And I think, I mean, Dr. Tsabedze can also even attest to the fact that we also consider abdominal fat. So there are certain people who may look relatively skinny, I think, where you are, you know, thin on the outside, but fat in the inside. And the visceral fat is actually a very bad risk factor in terms of cardiovascular disease. So we really encourage people to to exercise because it actually makes your vessels quite healthy, considering, you know, the pathophysiology has been mentioned by the cardiologist around how you develop heart disease	8:04
Azania	8:04	Yes. Historically, we've associated heart disease with older males. Does this remain true? What have we learned in recent decades about who's also susceptible?	8:15
Nqoba	8:15	The epidemiology has changed dramatically. More than 30/40 years ago, this condition was rarely seen and black patients. In fact, it was at some point in the history, they thought it was predominantly for Caucasians and Indians. And currently in our practice at the Charlotte Maxeke academic hospital cardiology unit, we are now seeing young black patients as young as 30 presenting with heart attacks; acute coronary syndromes that we have to take the cath lab to treat. So I think with the urbanization and westernization that has occurred, largely we've changed the way we live. We've changed the way we eat. We're very much a sedentary society and community and with food security.	9:57

		Especially the easy access to fast foods, which becomes very convenient in an urban setting. We indulge in those foods and naturally, the risk factors associated with cardiovascular disease increase, and we have high prevalence of obesity, high prevalence of hypertension, even in the young. So it's definitely not a disease of the elderly as what we traditionally thought of it to be. What's also interesting is if you look at comparison of data from Europe and America to sub Saharan Africa, we realized that, for example, hypertension, it's still very much a disease that we see largely in 60/70 plus year olds in Europe and America. However, in South Africa, the average age is still in the 40s. We find the majority of our patients presenting with already hypertension with asymptomatic target organ damage, such as retinopathy or proteinuria, or left ventricular hypertrophy.	
Azania	9:57	You are going to give us different meanings to those medical terms.	10:03
Noluthando&Azania	10:03	Eye complication. Kidney complication.	10:08
Nqoba	10:08	So it's not failure. It's not failure, but it's just markers of injury. There is some harm that is occurring to the eye, to the kidney, to the heart caused by this hypertension. Because remember, for example, hypertension, it's asymptomatic. So patients-	10:23
Azania	10:23	So then what are the warning signs?	10:23
Nqoba	10:23	They wouldn't know that I actually have high blood pressure unless they screen. So again, attesting to what Dr. Noluthando was saying, that patients need to screen.	10:32
Azania	10:32	So what are the warning signs, then? What do we do and what are we looking out for?	10:38
Noluthando	10:38	I think for a very long, I mean, hypertension has been known as a silent killer, you know, because of the fact that you do not get symptoms. There are some patients who may present with some symptoms that are vague and nonspecific, but obviously the screening component is very important. If we look at hypertension, we only say anyone over the age of 18 should at least have their blood pressure checked every once in a while. Based on the findings- so if, let's say, their blood pressure is borderline abnormal, then they will be given some form of educational material in terms of what they must change. Because some of these- because they are risk factors also, if you change your diet, you improve your exercise routine, you may actually reverse some of these. So I think for us, what we are really encouraging people to to do is to go and screen because you may be really asymptomatic and feel nothing until that day when you've got a stroke. And I mean, we've seen patients who are coming through already with a complication, and they were not aware that they had an underlying condition along.	11:37

Azania	11:37	Those are the signs of hypertension, but how do I know I'm having a heart attack?	11:42
Nqoba	11:42	Okay, so, similarly, with the heart attack, what happens is often you'll have in the acute setting, depending on the presentation, you'll have severe chest pain, that will be central in nature. It's usually associated with a feeling of nausea, sweating a lot, and it's a crushing pain. So it's not really sharp like someone is stabbing you. it's almost like there's a truck sitting on your chest. And there's a sense of impending death, like I'm dying. And that's what it feels like when you actually have an acute myocardial infarction or a heart attack. That means your arteries supplying the muscles of the heart are blocked, and you need to try to restore that flow. So what we normally recommend is immediately if you have those symptoms, don't ignore it. It's not heartburn, which often most people think it is. You need to take a disprin immediately and chew on it just to accelerate or improve the absorption to try and-	12:36
Azania	12:32	Oh, so that doesn't make the blood thinner, it improves absorption.	12:40
Nqoba	12:40	No. Chewing the disprin improves- the tablet improves the absorption rather than you swallowing it, and then the tablet's role is to thin or prevent platelet clotting. So in your blood vessels there are certain cells that, normally, when there's a ruptured plaque or atheroma that I talked about that blocks the artery, what happens is, this plaque grows and grows until it reaches that critical stage where it complicates and it usually breaks up. It opens up and then all this cholesterol particles, debris that's inside gets exposed to the blood. So the blood wants to heal, and it basically conglomerated that site and in so doing, it forms a clot, and it actually blocks flow, and that's when you get the heart attack. So by chewing the discipline or aspirin, you helping to have quick rapid absorption. So you have a quick effect that restores that flow to that artery and hence you abort the heart attack that you are busy having.	13:36
Azania	13:36	Yes, yes. Maybe it gets you enough time to get to the hospital or to contact emergency services.	13:41
Nqoba	13:41	Yes	
Azania	13:42	So those are the warning signs, and are they the same in women?	13:46
Nqoba	13:46	So in women, what's unique about them is that sometimes they can be very nonspecific, you know. So they would complain of similar pains, and in some women who come with angina symptoms. So that's when, for example, you have a narrowing over time of the blood vessel. And whenever you exert yourself, maybe you're running, you're jogging, or maybe you're angry, you know, you're upset with your child or some driving on the road, and immediately you get this chest pain. So in women, sometimes they have that. And it may not necessarily mean that it's blocked arteries, it could also be from vasospasm. But nevertheless, it's a warning sign. Don't ignore it. Do get checked out and be screened. And importantly, in the elderly, and in diabetic patients, they can	14:49

		have silent heart attacks. So you may not even experience the pain. All you will know is a sense of not feeling well. You nauseous, you feel like vomiting sweating a lot, you think maybe it's food poisoning- meanwhile, you're having a heart attack. So one shouldn't ignore-	
Azania	14:49	Dismiss these symptoms or this feeling of being unwell.	14:52
Nqoba	14:42	Exactly. Especially because that's how the body wardens you that I'm not well.	14:56
Azania	14:56	Yes, well, exercise has come up. So, how does exercise improve or rather mitigate the risks of a heart attack?	15:06
Noluthando	15:06	So I think exercise does it in in various ways. Firstly, I mean, if you exercise, you're most likely to be within your normal weight, because you're going to lose weight. It also, I mean, is good for healthy blood flow. So it improves blood flow and therefore, you get healthier arteries, which are good in terms of cardiovascular health. So I think that's why we encourage people to exercise a lot because it's really just good and, I mean, your heart is a muscle, it then exercises, you know, and you get good, vascular, you know, flow because of exercise.	15:40
Nqoba	15:40	Just to add to that. An observation which is- some of the data that is out shows that people who generally exercise and are very conscientious about their weight and their health, it's almost like a lifestyle, mental awareness switch that's on. So they're very conscious about what they're eating when they're eating it, how much they're eating. And so it actually promotes one to live a certain lifestyle that promotes cardiovascular health. So it's definitely a good thing to do for one to follow.	16:12
Azania	16:12	Yes. And then when we look at our numbers, what does that say about how hard the heart is working? When we have exercise, does it improve our hypertensive numbers?	16:24
Nqoba	16:24	Yes. So exercise can lower your blood pressure because it... from the improved vascular health as a result from the chronic sustained exercise. So again, what we normally prescribe is that at least three times a week, minimum of 30 minutes of exercise, you must at least develop a sweat or get your heart rate up. So it's not just a casual walk down the street, it has to be something that gives you a sweat and you get tachycardia, which is a good tachycardia. And that's what we're talking about when we talk about exercise. And then because of the improved vascular health, your blood pressure does come down and over Your muscles including your heart, they utilize the free fatty acids for energy. So that also improves the cholesterol profile. And if you're diabetic, you're now decreasing your storage- glucogen or sugar stores in your body which also improves your glycemic control. So definitely, exercise is an important one, and especially for the type two diabetics and patient with metabolic phenotype. So if you are overweight, hypertensive, central obesity, diabetic, that's probably the best pill.	17:30

Azania	17:30	The question of diet and what we eat, how much of a factor does that play? How much of a role does it have on the risk of cardiovascular disease?	17:39
Noluthando	17:39	I mean, we know that unhealthy eating contributes to obesity. I mean, we are an obese nation as it is. And it's because of the consumption of unhealthy foods. And I think there is a requirement for us to have messaging that is very clear to patients and to the broader society because I think there is a lot of confusing messaging around diet. And I think for me, what is important is also to package those messages, understanding the context. Because if I'm in a township, and I've got access to specific types of food, I must package the message so that it makes sense to you. I can't be telling you about quinoa when you don't even know what that is. So it must be about if you eat pap, I must tell you how the portion size matters. So it's not about what you are eating, but how much you are eating.	18:29
Azania	18:29	Yes, and as a carbohydrate, what kind of impact that has on your overall health.	18:34
Noluthando		Definitely. And I think the other important thing that we were just sharing about is about access to fast foods. And the fact that it is seen as having arrived. In a setting where people, if they've got access to specific fast foods, they believe that, you know, I have arrived, I'm doing well. And I think sadly, what we see is that sometimes obesity is not a disease of the very rich or very poor. It is the people that are just affording to get access to some of these things.	19:02
Nqoba	19:02	Most South Africans eat a diet high in processed meat, salt, sugars, deep fried foods, refined starches, and they don't eat enough fruits and vegetables. And what's ironic is, traditionally, if you go to a rural setup, somehow they had it right, you know. They ate a lot of vegetables, the carbohydrates they ate were high in fiber content, homemade bread, or mielie meal, etc. You know, having access to fruits and having your own vegetable patch which nourish them appropriately. But now, somehow we in an urbanized area, we have to now pursue that which often is very costly now to afford, but it's what traditionally or long ago used to be the standard, you know. So we have definitely mixed up our priorities and the insight as to what's good, healthy food has been lost in translation. Even for our children, you know, majority of the time if you go to informal settlements, you'll find that they have...I guess it's synonymous to Big Mac, where they'll have certain mini-load stuffed with all sorts of goodies. Bologna, fried egg, cheese, atchar, etc. And that's what people eat regularly. You know, that's my lunch for day in and day out for a whole month, or school term. Again, if I afford this, I'm perceived as someone compares to the child comes to school with a peanut butter sandwich or something like that and he carries lunch to school, which often would be healthier option compared to buying this readily accessible fast food. So definitely there has to be a lot of education, I think to parents, as well as in young adults, to actually understand what is	20:47

		healthy and what is not healthy.	
Noluthando	20:47	And I think most of the damage is usually done in childhood these days, because we're seeing a lot of obese kids because of what their parents are packing. And it becomes a lifestyle that they're used to. Yeah, because that's what is packed for me at home. This is what we eat at home. And because the parents are working long hours, they're not there to cook healthy meals. So I think there's a lot of stuff that's happening that is actually going to contribute to long term cardiovascular risk if we do not change the way- our relationship with food and how we access food right now.	21:17
Azania	21:17	So help me in understanding how prevalent heart disease is both locally and internationally. Are we seeing an increase of this illness in terms of the stats?	21:26
Nqoba	21:26	Yes, so globally, World Health Organization predicts currently- ischemic heart disease to be exact, so heart attacks- number one killer worldwide and is predicted to remain in the number one spot 'til 2030 and beyond. And with increasing life expectancy as you get old. So that's another element I'd like to introduce now. So atherosclerosis or the blockage of your arteries is also a natural process as you get older, but what happens is when you are diabetic, you hypertensive, you smoking, you eat bad fats, that process is accelerated and hence you get heart attacks at a young age. But naturally as you get older, you can even though you run comrades marathon, you can suddenly succumb to such an event, you know, which is part of a natural aging process, right. So in the West because you generally have a high life expectancy, most of the people will succumb or die from ischemic heart disease. But what's happening in sub saharan Africa, or the developing world where traditionally we've had a high burden of infectious diseases, there is now a change or shift whereby the noncommunicable diseases also driven by largely heart diseases driven by poor lifestyle and the other risk factors we've talked about, there's now an emerging increased risk of cardiovascular disease. In fact, in 2017/2018 StatsSA reported that for the first time, noncommunicable diseases were responsible for more deaths in South Africa than infectious diseases. Now infectious diseases, remember, atr huge in our settings. We're talking about HIV, talking about tuberculosis and malaria and ammonius, diarrheal illnesses, etc. So this is a very pivotal moment where suddenly our very strained health system, you know, nationally and regionally, is now needing to contend with both noncommunicable diseases as well as the high infectious disease burden. So it's very, very significant. And we were almost geared and ready for infectious diseases such as HIV, TB, you've got so many programs, a lot of state-driven awareness program.	23;41
Azania	23:41	And then there was an increase in priority.	23;43
Nqoba	23;43	Yes, you know, it was, it was a high- also civil society was very much involved such as the treatment action campaign, and in that phase, or drive, we somehow lost the pulse on non communicable	24:16

		diseases and now we have to play catch up. Because suddenly- even in South Africa, as much as our economy may not be that great, but- generally food security is improving, the middle class is growing and we're all becoming more and more urbanized. And now we have to contend and deal with these diseases which traditionally we were not even aware of.	
Azania	24:16	So, Dr. Noluthando, what do we see, as far as Discovery Health members are concerned? You have the Discovery Health claims tracker that gives great insights. Is this mirrored?	24:27
Noluthando	24:27	Definitely, so if we look at our top, in the top three, the top two conditions by prevalence and incidence, it's hypertension and hypercholesterolemia. So high cholesterol and hypertension, and if we've got those two, just understand that they are important risk factors for, you know, downstream costs related to cardiac failure, ischemic heart disease, and other related complications that come from that. And I think for me, we need to emphasize the fact that these are preventable. So these conditions, it's not like we can't do anything about it. So they are specific risk factors that can be modified and we can actually prevent most of what we see. So if we look specifically, I mean, when there are slight differences between the data that we see for males and females, so in the top three, the hypertension and hypercholesterolemia are there for both males and females. But then you see that in the top five, we get ischemic heart disease for men, which, obviously, is what, you know, the data always shows, that men have got a higher risk of heart attacks, even though we know that women are catching up because of how obesity in incidence in South Africa. So our numbers are really showing that there's a problem that needs to be dealt with.	25:38
Azania	25:38	And I guess that's why we see the creation of Discovery Health cardio care to respond to precisely these numbers. What does it involve, what kind of ecosystem has discovery developed to help support members who have heart disease?	25:53
Noluthando	25:53	I think just looking back at where we're coming from, I think, as a funder we've had HIV care for a very long time and I think it talks about our focus on infectious diseases for a very long time, until we realized that the noncommunicable disease burden is actually growing. And we started putting together, you know, programs like the diabetes care. So recently we've also put together cardiac care which we launched last this year, where we are encouraging members, firstly, to screen and then transition because the conditions that I've mentioned are prescribed minimum benefits. So there are existing benefits for members in terms of monitoring their conditions, and also we within that program, we encourage certain behaviors like increase in physical activity, you know, dietary control in terms of those patients who are either diagnosed or are at risk of a diagnosis that could be cardiac in nature. So our process is really supporting members with the screening, making sure that if you are at risk, then you are transitioned to specific vitality related programs. And also if you have got a diagnosis,	28:22

		then we transition you to our chronic illness benefit which opens up a basket of care four consults with your doctor, for routine screening for specific blood tests that need to be done, if you need to go and have a chest X-ray done, an ECG which is an echocardiogram, which is an X ray of your heart, and also, you know, a sonar of the heart by a cardiologist, so all that stuff is part of what would be offered. And what we have also created as part of our chronic disease management programs is really a network of GPs who are, you know, going to be the ones who are really the primary physicians that are coordinating care for the patient who is stable, but for those patients who require referral, within the baskets of care, we've got, you know, specialists visits that are allocated for those patients. And then there's the component then for those patients who are also diagnosed in terms of accessing their medication. So we make it easy for patients to get their chronic medication through our medexpress a partner, where there are specific pharmacies that are participating in those particular programs where patients can get reduction in co-payments because we've got la medicine formulary that they can have access to. They can, you know, manage their condition in an easy, affordable manner and, you know, get the desired outcomes in terms of reduction in heart attacks and hospitalizations related to heart disease.	
Azania	28:22	We did talk about the fact that this is reversible, but that would involve committing and setting goals.	28:30
Noluthando	28:30	Yes, yes.	28:31
Azania	28:31	Are we seeing compliance? Are we seeing enough of behaviour change when we're confronted with a diagnosis of heart disease?	28:39
Noluthando	28:39	For some patients, you find that some of the events... so you had a heart attack, let's say you were a blue statu Vitality member, and that life changing experience actually pushes you to gold, because now you want to prevent another heart attack. So there are some patients where you actually see that once they've had an event that is life, you know, threatening, you find that there is a change in how they start looking after themselves. I think for us, really the bulk of where we want to focus is where patients have not actually had an event where we saying we already know, which is why we really, really work so hard to encourage members through our Vitality program in terms of points allocation. If you look at our Vitality health check, it actually comprises of blood pressure checks, BMI checks, cholesterol checks, and checks for diabetes. If you look at all four components that we are addressing there, they'll all contribute to prevention of heart disease, because we know that if you are diabetic- I think we discussed diabetes -If you are diabetic, you are more likely to have cardiac-related complications. And I think Dr. Tsabedse highlighted that you can even have a silent heart attack which can actually be fatal for some of these patients. So if you look at that whole program, it is really geared to making sure that we get our patients to a level	30:37

		where they understand what their risk factors are, and we have designed programs within Vitality, and we've also supported them with benefits once they are diagnosed. So [3:11 inaudible] the Vitality program, you know, reaching your weight goal, where you get specific points for reaching a specific goal weight. And also I mean with the vitality, active rewards, where patients, you know, are encouraged to reach specific goals through exercise, you know, pacing yourself because we're not at the same level, you may be just starting. So you set a specific goal, and you get rewarded as you reach your goals. And I think-	
Azania	30:37	We are doing those annual screenings [30:40]	30:42
Noluthando	30:42	I think we lay out the rewards to say, once you have done that, I think for yourself, we are still going to reward you because we understand that it's quite a challenging thing to stick to that routine, because the gains may not be immediate, but we know that you are actually almost depositing, you know-	30:59
Azania	30:59	Future...it's credit, as you say that the future you will... thank you certainly, absolutely. But Dr. Tsabedse, as a cardiologist, you're in that moment, there's the diagnosis, you're talking to your patient, expressing to them how desperate the prognosis is, how serious it is. And there obviously has to be a change, they have to bring about a change. Talk to me about the mental hurdles, some of the things that have to shift within a patient in order for them to potentially reverse, or rather manage, this condition.	31:34
Nqoba	31;34	So the first thing is, most patients need to understand that retreating or addressing cardiovascular risk. So this is a very abstract concept. You know, they know they've had a heart attack, and they don't understand, okay, I'm having a heart attack. They may not see the link in terms of hypertension, this thing called cholesterol, the doctors measuring my stress levels, smoking, yes, they can attribute directly, maybe the alcohol intake as well that they have, as well as the diet, you know, the excess of red meat that they have. So, one needs to almost make this something that the patient can appreciate that I have control. This is something that has happened to me, and I can mitigate this risk, I can reduce it, and I can prevent this from happening again. And then unfortunately, they have to take ownership and, you know, responsibility for their health because it's easy to indulge and do all these seemingly benign activities and lifestyle activities. But when the consequences come, they're very grave and here it's your life that's at stake. So often we struggle. Some of the conditions like smoking is obviously addictive. Patients battle with that, they may need support and sometimes even therapy to try to help them to wean them off that. The lipid control is probably the easiest one, we now have a myriad of tablets or medications that one can treat, as well as hypertension. And often these are also actively managed because one needs to get to a certain target in order to mitigate the risk. So both physician and patient need to know what that target is. Similarly for diabetes as well. And when we attain that target, then we have really made a significant	33:38

		impact for the patient and preventing them from having an event. And because there's nothing such as pain or a cough or a headache that they feel, it's hard to keep them motivated. But they just have to understand, as I said, the initial issue is understanding what cardiovascular risk is and how to mitigate that. So really, my outlook, it's very doom and gloom. It's going to get worse before we get better.	
Azania	33:38	We thought we'd get you in for a message of hope and positivity.	33:42
Nqoba	33:42	It is positivity, but it's going to get worse before it gets better. Simply because we're not doing enough, you know. A lot of people out there, like, this message, it's something they probably have never heard of. And it's contrary to what they believe and really think and so unfortunately, we will get the increase where people will have... and we're seeing it already where young people are having MIs, succumbing to strokes. And until we come up and probably will need, again, a civil society champion that will come out to really push the message so people can say, well, we are dying, we are dying and this is something we can prevent. You know, 80% of cardiovascular diseases in people under 70 years of age are preventable.	34:27
Azania	34:27	I was just kidding. We actually did want a reality check and boy did you serve up a reality check.	34:34
Noluthando	34:34	Straight from the cardiologist's mouth.	34:36
Azania	34:36	Absolutely. Absolutely. Who's going to ignore that? Wow. So it is preventable. We've got mixed priorities. We need to reprioritize and get our health back on track. That activity. Thank you so much, and also to you Dr. Nematswerani. It's been a pleasure.Thank you.	34:52
Azania	34:58	Our choices affect how healthy we can be. I spoke to Jane Ball, a behavioural scientist and Head of Population Health Management at Discovery Health, about strategies on a change in behaviour, and how these can prevent and help manage heart disease.	35:21
Azania	35:21	Jane, thank you so much for joining us on this conversation.	35:25
Jane	35:25	Pleasure. Thanks for having me.	35:26
Azania	35:26	So in an effort to kind of address behavioral risk factors which contribute quite significantly to the global burden of disease, there's been this growing movement over the years, in public health, towards the use of interventions that are informed by behavioural science. So help us understand what behavioural science brings to this conversation.	35:47
Jane	35;47	Behavioural science is really the understanding of both psychology and also economics and that interface, and trying to be able to understand why people behave the way that they do, and also predict the way that they're likely to behave in the future.	36:12

		And then the last part is, understanding that, being able to put interventions in place that help people follow through on things that they themselves would like to do or are in their best interest.	
Azania	36:12	So do we have a better sense of what informs why we do what we do?	36:16
Jane	36:16	Certainly we do. And I think in health care, there are quite a number of different factors. But probably one of the most important things is that we are present-biased. So what happens today weighs far more heavily than what happens tomorrow or in the future. And that really influences the choices that I might make, and how I will behave and how I think I'm going to behave in the future. And that changes as the future becomes today. So for example, if I was offered R100 today or R120 tomorrow, most people will choose the R100 today. But if you offered me R100 in a month's time, or R120 in a month in one day's time, most people take the R120, and that's because the future is very sharply discounted relative to the present.	37:01
Azania	37:01	Right. So when we say "Future you will thank you" it's what we need to bear in mind all the time about the choices we make today.	37:09
Jane	37:09	Exactly, and also what we do today. I mean, if we have to defer doing something, there's a cost today to actually have good health in the future. So I might have to give up that dessert today to have a healthy weight in the future. And it's that trade-off: knowing that actually, what happens today is more important to me.	37:27
Azania	37:27	Right. So I guess that explains, then, why we fail to implement lifestyle habits that we need to implement for better health.	37:36
Jane	37:36	It is hard because [of] that immediate cost, and it's also that the future- I mean, when we talk about health, it's a relatively abstract concept. And so often for people it's quite hard to make that very related to themselves, and really understand what that means. So abstract concepts have high value, but they're also quite psychologically distant, which makes us more prone to procrastinate when it comes to those sort of concepts.	38:01
Azania	38:01	Have we come to understand why they are more difficult to in other people than in some? Because there are people who do what they intend to do; their actions speak to the intention that they have. And then you find some of us who have a wider gap when it comes to what our intentions are and what our actions are. Do we know what sets these individuals apart?	38:24
Jane	38:24	I don't think we really know what sets them apart. What we do know are things that we can do, though, to try and increase the likelihood of doing what we want to do. And maybe they're just inherently better at doing those things. So for example, if we plan well, we are more likely to follow through than if we say, well, we want to do something but have no plan at all. So I thought about what I'm going to do in a situation when it arises. And I've already	39:31

		got a plan in action, and far more likely to follow through than if I just wait for that situation to happen and then have to make a decision on how I'm going to act. So maybe a good example would be if I've thought about the fact that I'm wanting to eat more healthily and I think I'm going to a restaurant with my friends tomorrow night. When the waiter or waitress asks me if I'd like the dessert menu, I will say, "I'll just have a coffee. Thank you." By doing that, I've already decided how I'm going to act. It's already linked to that situational cue. And when it happens, I can automatically respond without having to use any sort of thinking or considering in the moment what I want to do.	
Azania	39:31	That's a fantastic example. So we then set ourselves up for greater success if we plan. What else can we do especially pertaining to a condition like heart disease? There's hypertension, which is a silent killer, that warning sign that you could in fact suffer from heart disease at a later stage. So are there things that we can do in order to prevent heart disease?	39:56
Jane	39:56	I think definitely lifestyle is a major contributor. So if we can make sure that we're eating healthily, staying active, actually just looking after ourselves physically, then we definitely reduce those risk factors.	40:08
Azania	40:08	So planning and being quite deliberate about the things that we do today.	40:13
Jane	40:13	How do I make sure that I've planned for the way I'm going to eat? That I've planned for when I will exercise or being active would certainly help. And the other thing we know is that reducing the immediate cost is really helpful. And one way that people can do that is by participating in programs like Vitality Active Rewards, because there you get short term rewards for having the right lifestyle behaviours. So that reduces the immediate cost, makes it more pleasant for me in the short term, and then helps me to achieve those long term sort of health goals.	40:45
Azania	40:45	Yes, because health agencies have been criticized for sort of under utilizing the behavioral science with their emphasis on behavioural factors in disease. And when you look at the interdisciplinary approach to disease prevention that is necessary, we do need to extend ourselves to other disciplines beyond the regimented ways that we've had of preventing disease.	41:08
Jane	41:08	I think so. And I think the other important factor is that people are far more likely to follow through on their actions if they feel that they themselves are in control. So they talk about that idea of autonomy. So having someone else like a doctor or some other healthcare worker tell me what I should do means I'm less likely to follow through than if you actually ask me, what are my health goals, and help me overcome the barriers to then achieve that. So I think that's very important. I think sometimes in the healthcare environment, it's very much about having that knowledge and wanting to tell someone else how they should act, but really	41:49

		important is that they themselves subscribe to that sort of goal and that together, you then create some sort of plan to achieve the goal.	
Azania	41:49	And once the diagnosis has been made, or if we suffer an episode, this is where we would hope there's a turning point. But even with the grave diagnosis, some cases we don't see a change in behaviour. What are the drivers behind that?	42:05
Jane	42:05	So luckily, often a major event is a trigger for people to change their behaviour. So we do know that in some people that really has a positive impact, even things like just your birthday or other key dates can be enough to trigger a change in behaviour. And so it's great to link a message with a sort of key event or date. But for other people, I think sometimes it just comes down to self-efficacy or the confidence [in] knowing what to do. So sometimes I might know what I need to do, but I may not feel I'm capable myself, and having that support system to then help me know or learn how to be competent would also help in those situations.	42:44
42:44	42:44	And I want to bring it back to Vitality after what you said. So being empowered then; you see the reward, you are put within a program that is fairly structured, you're empowered then to take your health into your own hands and do better.	42:58
Jane	42:58	That's true, and what's really great is that we're now rolling Vitality active rewards out specifically for people with heart disease. And in that we're actually have a structure where we can help remind people about certain key health checks that they need to have done, or also remind them about taking their medicine regularly. So really through that structure, trying to create that support so people have that confidence or know what they need to do next.	43:22
Azania	43:22	What is the role of social stressors and other social factors, if we step out of the individual, that can hamper our progress?	43:30
Jane	43:30	I think social stressors can be huge because we have so many different things that are competing for our priorities. While it might be really important to stay healthy, there are a whole lot of other priorities that also need my attention and they need my finances and they need my cognitive and physical effort. So the fact that I also have work demands, home life demands, the fact that I also need to try and fit in all my admin work, all compete for my same resources. And that's often why people struggle to follow through on these health actions. So it's not just about the confidence and it being what I've chosen to do, but how do I get that prioritized amongst all my other competing priorities?	44:11
Azania	44:11	Thank you so much, Jane.	44:19
Azania	44:19	What's clear is that heart disease is a matter of life and death and it's safe to say education on what is best for our heart health is necessary. In this regard, a back to basics approach is all it takes. What we eat, what our children eat from a young age, screening	45:08

		for risks, such as high blood pressure, and high cholesterol and staying active. Here's the good heart health. Thank you for listening to this episode of Discover Healthier, brought to you by Discovery Health. Join the conversation on social media with the hashtag #discoverhealthier and tag @discovery_sa. You can subscribe to our podcast channel discovery South Africa on your favorite podcast app or visit discovery.co.za to listen to our shows.	