

NAMI Ask the Expert:

Achieving Ideal Heart Health in People with Mental Illness December 10, 2020

Presented by Dr. Gail Daumit, MD, MHS, FACP

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Dan Gillison, Chief Executive Officer, NAMI (00:00:01):

Thank you very much, Teri. And good afternoon. Good midday to those in the west. We're really happy to have you with us on today for this outstanding Ask the Expert. To those that have joined all throughout the year thank you. And this will be our final Ask the Expert for 2020. And we're looking forward to having you with us next year.

Dan Gillison (00:00:25):

So, in terms of greetings, I just like to say on behalf of our board, and our board president Shirley Holloway and our staff are welcome. Thanks for all that you do. And we're looking forward to hearing our expert on today. And to introduce our expert is Dr. Ken Duckworth, our Chief Medical Officer. Ken.

Dr. Ken Duckworth, Chief Medical Officer, NAMI (00:00:49):

Hello, everybody. Good afternoon. Today's talk is a continuation of last month's conversation where we talked about strategies for quitting smoking, even when you're living with a serious mental health condition. Dr. Gail Daumit who is a remarkable resource for us today. She is the Samsung Professor of Medicine and holds a joint appointment in the Department of Psychiatry at Johns Hopkins. So, I want you to think about that. To talk about integrating cardiac wellness for people living with mental health conditions there really is no person on this planet who's done more in the service of understanding this problem.

Dr. Ken Duckworth (00:01:30):

Dr. Daumit has some good news for us, there are things that you can do to improve your risk. Cardiovascular wellness is of course very important as it relates to COVID. And to reducing your risk, but it's also important for both your quality and quantity of life. Dr. Daumit it's wonderful to have you here today. And thank you for giving your time to our audience. So, Dr. Daumit will be giving a talk, the full conversation, listen to her and ask questions. And I'll moderate the Q&A at the end. And I'll do my best to get to all the questions. Thank you and take it away. Dr. Daumit.

Dr. Gail Daumit (00:02:11):

Great. Thank you so much, everyone. I want to say it's a real honor for me to be here with you virtually. I know that you have choices about how you spend your time. And it's



the end of the day, at least for those of us on the East Coast, it's the end of the week, and it's the end of a very long year for all of us. I hope that this will be an uplifting talk and question and answer afterwards, as we all learn about how to try to improve the health of ourselves and those we love and take care of.

Dr. Gail Daumit (00:02:46):

I want to say that my contact information is also at the end of this talk, please feel free to reach out to me. I welcome any suggestions about how the work I'm doing can take... What next directions that should take. So please feel free to do that. And thank you so much for everyone for taking the time to be here with us today. So today we have some different goals around cardiovascular heart health. So first, we'll talk about the public health issue itself. What does the science show about the risk and early mortality in persons living with mental illness? Then we're going to talk about the evidence what has been shown to work for people living with mental illness? And how are we, how am I and my research team in working to try to scale up and disseminate things that work?

Dr. Gail Daumit (00:03:53):

And then hopefully, the energizing part of the talk will be strategies and tools that you can use to improve heart health for yourselves, for people that you love or for people that you're providing care for. And then we'll just have our review at the end. So, let's go to the next slide.

Dr. Gail Daumit (00:04:13):

Okay, so let's talk about the epidemiology, the science about early mortality in people living with mental illness. We're going to spend most of our time on kind of the evidence of what works and solutions. But let's be on the same page when we talk about what we need to address. So we know that persons living with mental illness have two to three times higher mortality than the overall population. And that's adjusted for age, race, sex, etc. The next slide.

Dr. Gail Daumit (00:04:45):

This has actually been shown to hold true across countries and across time. So things have not really improved in terms of the disparities and There's a lot of evidence in many studies that this mortality gap is real. Next. And even though we know that suicide and accidental death, the risk is higher in people living with mental illness, the top cause the main cause of death is what it is for the overall population and that's heart disease. And other causes like cancer, diabetes, respiratory diseases, the same top causes of death as the overall population. We're going to be focusing on heart disease, for this talk. Next slide. Thank you.

Dr. Gail Daumit (<u>00:05:41</u>):

And again, heart disease there are several risk factors for heart disease. And really all of them are elevated one and a half to three times for people living with mental illness.



And we use the American Heart Association classification for the different kinds of risk factors. So the first group are what we call like health risk behaviors. That would be like unhealthy diet, sedentary lifestyle, or physical inactivity, obesity, caused by those two things, and tobacco smoking. And then the next, next slide, are health risk factors.

Dr. Gail Daumit (00:06:15):

So those are things more of like kind of the medical condition itself. So, diabetes, high blood pressure, or hypertension, and high cholesterol. So, we're going to spend a little time looking at some specific contributors and risk factors. So first, let's look at obesity, which is such an important contributor for many living with mental illness. Next slide. And psychotropic medications, as I'm sure all of you know, in particular, some of the antipsychotic medications are led to weight gain and glucose intolerance. This is a classic study done over 20 years ago, showing weight gain with different types of antipsychotics.

Dr. Gail Daumit (<u>00:07:00</u>):

And just it's kind of a marker for us to talk about this issue. But it's really not just on antipsychotics, the second-generation antipsychotics, but also mood stabilizers and many antidepressants cause weight gain. So, we're going to talk more about overweight and obesity in a little bit, but now let's move on to the next slide. And let's highlight tobacco smoking on which if those of you who heard Eden Evins talk last month, my colleague, you learned about that. And tobacco smoking 50 years after the Surgeon General first reported an association with smoking and cancer. And after the overall US population has wide drops in tobacco smoking is still epidemic among persons living with mental illness. And this is something that I'm sure many of you are working to address, and we need to continue to push hard to address this. It's the main contributor to cardiovascular disease, cancer and early mortality.

Dr. Gail Daumit (<u>00:08:08</u>):

Okay, now, let's go to the next slide. And this is a little bit more science-y. This is kind of a conceptual framework that kind of describes factors that contribute to heart disease risk in different groups. And this one is kind of tailored to people living with mental illness. Now we know that people living with mental illness are a very diverse group that have very diverse backgrounds. So not everyone has all these factors, but many people living with mental illness have factors that put them at risk for heart disease, risk factors and other medical conditions. So, for example, if we look at the left side of this figure with socioeconomic factors, so issues like disability, not working, certain living arrangements, potentially not having a significant other that they're living with.

Dr. Gail Daumit (00:09:12):

And then if we move down lower on this left-hand column, we see discrimination or stigma, which we know is an important factor. If we move over to the middle column there are environmental stresses like not as good access to healthy food availability or



safe places to exercise or accessible places to exercise. We have health behaviors, which themselves are cardiovascular risk factors and then of course, psychosocial resources, stress, and then medical care as I showed on the previous slides, psychotropic medications, and then kind of access and quality of primary care. All of these things can interrelate and lead to heart disease risk factors. And the interventions and programs need to take these factors into account to address the needs for people that are living with... Sorry, CVD, I'm sorry, is cardiovascular disease. CVD is an abbreviation for cardiovascular disease or heart disease.

Dr. Gail Daumit (<u>00:10:24</u>):

Okay, so now let's move to what the evidence of what's been shown to work. Okay. So, I'm going to give you like a super brief overview of cardiovascular disease risk epidemiology, as we kind of move into talking about how to reduce these risk factors. So, this will be the sort of brief version, but I think it's basically almost all you need to know. So, you can say you heard it here.

Dr. Gail Daumit (<u>00:10:56</u>):

The first one is that overweight or obesity is a risk factor for a lot of other different cardiovascular risk factors. So, it's the heart disease risk factor itself, but also, it's a risk factor for high blood pressure, for abnormal cholesterol, for diabetes. Smoking, also, tobacco smoking is also a risk factor for high blood pressure, and also for heart disease risk, for heart disease. Now when we're talking about obesity, it can seem kind of overwhelming, someone may have a very, very high body mass index and feel like they can never be able to really get to that like ideal body weight, or fit in that bathing suit that they really love.

Dr. Gail Daumit (00:11:39):

However, the truth is that just a few pounds of weight loss can decrease heart disease risk. And this has been shown in many studies, which I'm kind of summarizing here. So less than 10 pounds of weight loss can decrease someone's risk for diabetes by almost 60%. A few pounds of weight loss can decrease systolic blood pressure by three millimeters of mercury, which on a population level actually is very relevant. Decreased stroke mortality, decreased CHD, sorry, coronary heart disease mortality, and the risk of high blood pressure. So-

Dr. Ken Duckworth (00:12:21):

Dr. Daumit?

Dr. Gail Daumit (00:12:22):

Yeah.



Dr. Ken Duckworth (<u>00:12:23</u>):

I'm sorry to interrupt you. Would you remind people the difference between systolic blood pressure and diastolic blood pressure?

Dr. Gail Daumit (00:12:31):

Oh yeah, I'm so sorry. And so-

Dr. Ken Duckworth (<u>00:12:31</u>):

And why systolic seems to be more important.

Dr. Gail Daumit (00:12:36):

Systolic blood pressure is sort of the main source of blood that when your heart is pumping out. When the left ventricle beats. I mean both systolic and then the other one diastolic, which is when you're relaxing, both are important, but many... I don't know, I don't want to say the wrong thing. Many studies have shown that systolic blood pressure, which is sort of like the maximal force that your blood vessels are coming under is very important. I don't know if that answers your question.

Dr. Ken Duckworth (00:13:13):

So, it's the top number.

Dr. Gail Daumit (00:13:14):

It's the top number. Sorry it's the top number.

Dr. Ken Duckworth (00:13:15):

So, when people say why 130 over 80? It's the top number. That's the most force that your heart is projecting.

Dr. Gail Daumit (<u>00:13:23</u>):

It's the most force that your heart's projecting. Yes.

Dr. Ken Duckworth (00:13:24):

Yes. Thank you.

Dr. Gail Daumit (00:13:25):

Thanks so much. No, thank you for trying to redirect me.

Dr. Ken Duckworth (00:13:27):

Sorry to interrupt.



Dr. Gail Daumit (<u>00:13:27</u>):

No, no, no, it's good. So, all this is just to say maybe this is just too many numbers. But all this is to say like, if you lose a few pounds, it actually can affect your risk for different diseases that are important. The other thing in terms of weight loss is that we believe... What's odd is that the most important thing is changing what you eat. And that physical activity is also important, but it's an adjunct. So, it's helpful, but the most important thing is what you eat.

Dr. Gail Daumit (<u>00:14:02</u>):

However, by itself, increasing physical activity, it lowers your risk for having a heart to heart attack, it lowers your risk for cardiovascular events. So, both diet and exercise are both important. And when I came into this field, I guess like maybe... Well, I don't want to say, how old I am, just kidding. But when I started in this field, over 15 years ago, really, there were very few, almost no intervention studies for people living with mental illness. And actually, all of the successful NIH funded trials for diet and exercise, weight loss in the overall population all excluded people who had mental illness. Meaning just if you're taking like one antidepressant or had like one hospitalization. So, we really need, and we needed work to study, to really understand what will work for people living with mental illness.

Dr. Gail Daumit (<u>00:15:11</u>):

Okay, so let's go to the next slide. One kind of just overall comment I want to make after I just told you about all these risks and all these elevated risks and things is that I think it's really important to believe that everyone can make health behavior change at some level. When I first put in the pilot study for this weight loss trial that I'm going to describe in a few minutes, it took me like three times to get it funded and the grant reviewers at NIH. The scientists, who were supposedly my peers, scientists were saying, "Oh, people living with mental illness are not going to want to exercise. If they have negative symptoms or having a lot of sedation, also from the medication, etc."

Dr. Gail Daumit (00:16:05):

These were psychiatrists saying this. And I think that it's a different time now than it was then. I mean, one of the things that I try to work for is just sort of the belief and the confidence that everyone can make health behavior change. And we have to believe it ourselves for people that we take care of, for people living with mental illness, supporters, family members, everybody. I think that some guiding principles that you might want to keep in mind that correspond to the risk behaviors and the risk factors that I showed in previous slides, is the American Heart Association has what's called Life's Simple 7. And I have their website at the end of my talk. But basically, it's these seven items to work on that will help you have heart health. So, stopping smoking,



eating better, getting active, losing weight, managing blood pressure, cholesterol, and blood sugar. Okay, let's go to the next slide.

Dr. Gail Daumit (00:17:17):

So, this is just a pause to say what overall do we know works. What is in the literature about interventions, lifestyle interventions, meaning interventions to change health behaviors for people living with mental illness. We did a review with the National Institute of Mental Health several years ago. At the time of this review, weight loss and smoking cessation studies, we showed, had been shown to work. These were smoking cessation studies really just for people who are ready to quit right away.

Dr. Gail Daumit (00:17:57):

We still at that time, and we still do now we need more evidence-based practices for some different cardiovascular risk factors. But we have enough evidence that we are able to move forward to implement programs more widely so that we can spread what we know. Okay, so I'm going to now talk with you about two of the studies that I have done as kind of hopefully good examples of programs that work. All right. So, let's go to the next slide.

Dr. Gail Daumit (<u>00:18:32</u>):

So, I'm going to talk with you a little bit about the ACHIEVE trial which maybe some of you have heard of. This was funded by the National Institute of Mental Health. I'm very thankful for all the support they've given me over the years. This was the largest and longest behavioral weight loss intervention study for people living with mental illness. And we already believed in our study team that people living with mental illness could make health behavior change.

Dr. Gail Daumit (00:19:01):

However, this trial, which was in the New England Journal really showed, hopefully showed the wider community by putting this issue kind of front and center that... Oh, can you go back? That diet and exercise healthy changes are possible and lead to clinically significant weight loss in people living with mental illness. So, let's go to the next slide.

Dr. Gail Daumit (00:19:28):

And so why did the ACHIEVE intervention work? So, the ACHIEVE intervention was a combined group and individual level intervention that we conducted in psychiatric rehabilitation programs in Maryland. So, a subset of the persons living with mental illness so it's potentially more disabled... A subset with more needs. But what we did with this intervention is that it was a very tailored and responsive to the learning needs of that population, which includes addressing cognitive issues.



Dr. Gail Daumit (00:20:08):

And what we did was we had material that was broken down into small units, we have a lot of repetition. And we really focused on high impact goals, and things that we could help with in the environments both at home and at the Community Mental Health Program. And we kept things simple and straightforward. So, things like we didn't focus on complicated things like calorie counting, unless the participants wanted something like that.

Dr. Gail Daumit (<u>00:20:36</u>):

And so, by keeping things simple and straightforward, and helping build people's confidence, we were really able to have a really good effect. So that study was great. And we were in the New York Times, we got a lot of great feedback also from the sites that participated with us. But then they said, "Well, that's really great Gail, but what are you doing about diabetes? And what are you doing about smoking, and high blood pressure? We need to work on that." So, let's go to the next slide.

Dr. Gail Daumit (<u>00:21:11</u>):

So essentially, as I'm sure many of you know and endorse that often cardiovascular risk factors coexist with each other, and everyone but especially for people living with mental illness who we know have higher rates of smoking, who we know, maybe likely to take psychotropic medications, which they need, but which also can cause weight gain. They often have multiple heart disease risk factors. And so, what's been happening, as I know, you all know, is that over the past 10 or 15 years, there's been this kind of proliferation of kind of care... What did I mean by say, the ACHIEVE intervention worked? Oh, sorry. I should have said before that in the ACHIEVE trial, there was a seven-pound weight loss between the intervention and control group, which was kind of the main result of the study. I kind of skipped over that.

Dr. Ken Duckworth Officer (00:22:11):

Which I think you mentioned before is a meaningful impact on your work.

Dr. Gail Daumit (00:22:13):

It's a meaningful impact.

Dr. Ken Duckworth (<u>00:22:15</u>):

7 pounds changes the whole game.

Dr. Gail Daumit (00:22:17):

Right. It changes the game. Sorry, I skipped over that part. I'm kind of caused by reading the chat, which I don't know if it' good or bad. But yeah, it says my voice is garbled. I don't know. Can you hear me, Ken?



Dr. Ken Duckworth (00:22:30):

I can hear you okay.

Dr. Gail Daumit (<u>00:22:31</u>):

Great. Okay. So, it was a seven-pound weight loss. I skipped over that. Which was significant. Okay, so basically going back to what I was saying, there have been a lot of integrated care programs where people are putting in a kind of a physical health program or a medical care program into specialty mental health settings, using the SAMHSA project. The Affordable Care Act funded Medicaid behavioral health homes in many states, and those programs are great. And people seem to like the programs. And there's a lot of positive things about the programs, one of the things that they haven't shown, either in well controlled studies, or in kind of just program evaluation is it overall, they have really not shown real improvements in heart disease risk.

Dr. Gail Daumit (00:23:26):

Meaning they have not lowered blood pressure, they have not had smoking cessation, they have not had weight loss, they've not had big improvements of cholesterol and things like that. They have shown some kind of improvements in screening for blood pressure and things. But they have not really shown what we would want in terms of like saving lives and lowering heart disease risk. Okay. So, this next study that I'm going to talk with you about is called the IDEAL trial, which was funded by the National Heart, Lung and Blood Institute. And this study actually has a similar makeup of the intervention, a similar structure than what is in a Medicaid behavioral health home. So, let me tell you what we did. And I won't forget to tell you the results like I did for the other one. So, we also worked in Maryland sites for this study. In community mental health programs. We essentially had a similar sample size, we had 269 people in this study.

Dr. Gail Daumit (00:24:39):

And what we did is we randomized the different participants to either get an intervention or control. The intervention was we had a health coach that was providing behavioral counseling for weight management, smoking cessation, and kind of adherence to medications for diabetes or cholesterol or high blood pressure depending on what the person needs. And that health coach was hired jointly and supervised jointly by the study team and the community mental health program. So, the coach was embedded in the community mental health program. And so, he or she went to regular meetings about the clients and their different needs. Like for example, residential needs, vocational needs. But the main job they had was focusing on heart health.

Dr. Gail Daumit (00:25:36):

So then, the second person that we had was a study nurse who worked with this health coach. And her job was to essentially perform care coordination, care management activities focused around high blood pressure, diabetes, cholesterol, and smoking



cessation, with primary care doctors and with psychiatrists, and to be an advocate for people getting the best guideline concordant care for these conditions. And so, the coach and the nurse worked together, and actually, the nurse per job really is a nurse is someone who's in... Behavioral health homes often have nurses. So, the job kind of fit into that.

Dr. Gail Daumit (00:26:25):

So essentially, what we found after a year and a half of this intervention was that heart disease risk was decreased. So, our primary outcome was the Framingham Cardiovascular risk score, it's a calculated score, but the score is used in primary care to try to assess someone's risk. And what it is it's assessing your risk of having a problem, a cardiovascular event, like a stroke or a heart attack in the next 10 years. So, it's used trying to project into the future.

Dr. Gail Daumit (<u>00:27:03</u>):

So, you can see on the figure on the right that what we found was that the risk for the intervention group, which is the bottom line, was decreased by 12.7%. Which I realize that number might not mean anything to many of us. But essentially, it's a clinically significant risk in cardiovascular expected events. And that is comprised of smoking, diabetes, high blood pressure, and lipids kind of all into one score. But the other thing that we found was that while all the cardiovascular risk factors moved in the right direction, quitting smoking was something that really stood out with this intervention, you can go to the next slide.

Dr. Gail Daumit (<u>00:27:53</u>):

So, what we found was that there was a change in the overall smoking prevalence between intervention control of 10.5% that was kind of translated into like a 21% relative reduction in smoking prevalence. So, these numbers might not sort of mean that much. But I think that the really important thing to take away about this study and smoking cessation is that the study was not designed as a smoking cessation trial.

Dr. Gail Daumit (00:28:24):

Meaning that the other smoking cessation trials like even the ones that Dr. Evins, you may have heard her speak about last month, those were all for people that they knew they wanted to quit right at the beginning. And they were recruited that way. Whereas this project was like all comers. It was like everyone who joined, they may have smoked, but not really been interested in working on their smoking at all. Maybe they wanted to work on their diabetes, or their blood pressure control or their weight.

Dr. Gail Daumit (00:28:57):

So, we were able to take all comers and still show a significant reduction in smoking. And Eden Evins worked with me as a co-scientist on this study. So, this trial that has an



intervention that could fit into behavioral health homes, so that's something to kind of keep in mind and hopefully be excited about. Okay, so let's go to the next slide.

Dr. Gail Daumit (00:29:25):

So, I just showed you some examples of the evidence in terms of programs that work. These aren't the only programs, but I think they're good examples of some evidence-based practices. So now let's talk about how to scale things up. So, this is just kind of like a pause to say and hopefully, you'll all agree with me that we really need these interventions to be able to be widely implemented, or interventions like these. I have tried, I tried to have the studies that I've done be as real world as possible. I mean, in the ACHIEVE weight loss trial, we did have psychiatric rehabilitation program staff leading exercise classes.

Dr. Gail Daumit (<u>00:30:11</u>):

And I just told you about in the IDEAL trial, we had mental health program staff that were doing the coaching, with joint training and supervision. But these are still like selected sites that were very willing to partner with us, etc. So, we really need these to be able to be much more widely disseminated than just for these studies. Okay, next slide. On a positive note, the World Health Organization actually does recognize this as a problem. I was fortunate to be able to participate in a series of meetings from 2016 through 2018 with the World Health Organization as a member of their guideline development group. Where they were addressing this issue across many countries. I was the only primary care physician to be on this group. And it was a really good experience. And there is buy in there for the need for scaling up and implementing programs to address physical health in people living with mental illness.

Dr. Gail Daumit (00:31:27):

Okay, so the next slide is going to talk about what I'm doing now to try to address these issues. So, I'm working in the space of, implementation, implementation science, to be able to test strategies to try to address the need to really spread interventions widely in communities. To really have mental health organizations and providers to uptake these interventions and be able to deliver them themselves without a trained study team.

Dr. Gail Daumit (00:32:11):

And I was very fortunate to receive funding from the National Institute of Mental Health to have a center in this area. And this was part of the advanced laboratories for accelerating the reach and impact of treatments for youth in adults with mental illness or the ALACRITY centers. There are several ALACRITY centers in the US, this is the only one that's focusing on physical health, in people living with mental illness. And again, our mission is really to eliminate premature mortality in this group.



Dr. Gail Daumit (00:32:45):

And, okay, let's go the next slide. What we're doing in the center is that we have kind of smaller research projects, which I'll describe in a moment, that are developing and testing implementation strategies, and the methods to try to speed the translation of evidence based practices that are needed to close the gap between research and what happens in the real world in practice.

Dr. Gail Daumit (<u>00:33:12</u>):

And we have a stakeholder advisory board and the stakeholders help us provide input and incorporate strategies to help support these interventions. We also are working on trainings and tools that we can use, that will be available to the wider community. And we're building a cohort of researchers that are really focused in this topic. So, it's a pretty small group of us that are doing work in this area. And our center is really kind of expanding that group of people. So next slide.

Dr. Gail Daumit (00:33:50):

I'll talk with you about the projects briefly. So, we have three different research projects, all of the projects together they address all of the heart disease risk factors that we've been talking about. And each project is kind of targeting different types of mental health practitioners, and different kinds of specialty mental health organizations. The first project that we're calling ACHIEVE-D for ACHIEVE Dissemination is adapting the ACHIEVE intervention that I just talked with you about and essentially adapting it to like fit even easier into psychiatric rehabilitation programs. So, by making it shorter, by having it be like video assisted and by developing a very innovative training so that lay staff can learn to deliver a weight loss intervention. We're also having peers be involved as health coaches for this intervention also.

Dr. Gail Daumit (00:34:55):

The second study called IMPACT is going to be working on I'm helping community mental health clinics implement smoking cessation, evidence-based treatment, including counseling and medications. And for all people that smoke, not just people that are ready to quit right away. And the third study is actually going to be working in behavioral health phones, to try to bring more standard protocols like we use in the IDEAL trial to the behavioral health home settings, so that there can be better care for cardiovascular risk factors. And we're going to be using a really cool patient safety quality improvement process that is the same one that's been used in hospitals to try to reduce the risk of infections and improve hand washing and things like that. That has not been tested in community mental health programs. So, I'm very excited about these projects. The next slide.

Dr. Gail Daumit (<u>00:35:53</u>):

And be one thing that we're doing across all these projects that I think is really exciting is that we have developed a an avatar, like a simulated conversation with a company



that is going to be assisting different practitioners in working with people living with mental illness around these different risk factors so that they can practice how they speak and how they try to help people with health behavior change. So that's going to be great. So that's a brief overview of the center. Let's go to the next slide.

Dr. Gail Daumit (00:36:38):

Okay, all right, now we're going to move, so everyone can kind of wake up now. Now we're going to move and talk about things that you can do for yourself or for people that you love, or you take care of to improve heart health. Okay, so the first part is, and maybe this will also emphasize some of the things that Eden Evins talked about, let's talk about the strategies for quitting smoking.

Dr. Gail Daumit (<u>00:37:03</u>):

And I guess you all will have the slides and the recording. So you can think about these more, also by yourself, but I want to start by saying that I think it can be kind of overwhelming to think about how to quit yourself, or how to help someone quit. Because nicotine is extremely addictive. People smoke for years, it's chronic. And even when people quit, they often relapse. And it's just very, very hard to quit. However, there is hope. There are strategies that work. And I am going to give you some tips that you can use. But there are also more formal programs that hopefully you can also access.

Dr. Gail Daumit (00:37:56):

So, some strategies for quitting. So first is either identifying yourself personal reasons for wanting to quit or helping others identify their personal reasons. Really listing out triggers for smoking and high-risk situations that the person would want to smoke. Knowing and being able to use coping strategies. And then smoking cessation medications, which I'll talk about and then a quit day and a plan to address the quit day. Okay, so let's go to the next slide.

Dr. Gail Daumit (00:38:32):

One of the key things is identifying reasons why someone might want to quit. Really listing those out, what do you like about smoking? What don't you like about smoking? Don't like smoking that I can't smoke everywhere, it's expensive, I'm concerned about my health, and getting people in my house sick etc. So, listing them out, is very helpful. And then, next slide.

Dr. Gail Daumit (00:39:02):

The next thing that's really helpful is thinking about triggers, which are people, places or feelings that make you or someone want to smoke. So, it's like, "I'm always going past this one place or on with these people, they smoke, that's kind of how we interact." And then high-risk situations, which are basically if there's settings where there's like triggers, where there's a likelihood you're going to want to smoke. So, like you are with those friends. I mean, it's COVID now, so I think everything's kind of different. So, I'm



thinking of scenarios that like might not be actually existing, like we're gathering together.

Dr. Gail Daumit (<u>00:39:42</u>):

But high-risk places, settings where these things could occur that you would want to smoke. And then part of the quit plan is trying to avoid, making a plan to try to avoid these triggers and situations. And or understanding how you're going to use your coping strategies to not smoke during those times. So, let's look a little bit more into that. So, the common strategies in smoking cessation are the four Ds. So, these are deep breathing, drinking water, which can help flush nicotine out of the body and decrease cravings, delay. So, it's like, if you want to smoke, try to just wait a few minutes. And do something else. Just chew gum, or I don't know, take a walk or other things like that. So, the four Ds, these are very commonly used strategies that work. Okay, let's look at the next slide.

Dr. Gail Daumit (<u>00:40:52</u>):

Okay, something I'm going to mention is that for people living with mental illness, what has been shown to work in studies for quitting smoking is a combination of behavioral counseling, of which let's just say I gave you like a little bit there, like the tips. I mean I wasn't really giving counseling, but behavioral counseling for strategies and medicine. It can be harder for people living with mental illness to quit, for some different reasons. And medications are recommended.

Dr. Gail Daumit (00:41:32):

So, there are different medicines, there's Varenicline, Bupropion. And then there's also nicotine replacement therapy, which can be prescribed, but it's also over the counter. So, let's go to the next slide. I'll just going to say a couple words about nicotine replacement therapy, since it's something that you don't need a prescription to get. The information here is also on the labeling. So, it's not special information. But I think understanding that there's essentially two different kinds of forms, or overall forms. One is the patch, which is a longer-term replacement for nicotine, so that there's sort of a should decrease... It's bringing nicotine into your body so that a person shouldn't need as much of the nicotine that's coming from a cigarette.

Dr. Gail Daumit (00:42:28):

The dosing can also be adjusted based on, and this is on the packaging, based on the number of cigarettes someone is currently smoking. And the second kind of nicotine replacement therapy, which I don't think people always use as we would recommend, is a shorter acting. So, gum or lozenge which can be used for cravings that come up during the day. So that the patch of the lozenge long acting in short acting nicotine replacement therapy can be used together and are actually recommended to be used together for many people. Because the short acting can help kind of like break through cravings from the long acting.



Dr. Gail Daumit (00:43:16):

Okay, let's go to the next slide. Okay, and then in terms of planning for the quit day. So, people often also use these "practice quits" where you can kind of try to quit for 24 hours, and then try again to quit for 24 hours, just as kind of as practices. But when your person is ready to quit, you try to get ready for the quit day by removing cigarettes from your house, telling people about that you're going to quit, identifying the coping strategies that you're going to use and try to quit. So, okay, that's what I have about smoking cessation. That was 10 minutes on that.

Dr. Gail Daumit (<u>00:44:02</u>):

Okay. Let's move to the second topic we're going to talk about which is behavioral lifestyle changes for weight loss. Okay, you can advance. Okay, so, as far as the reminder, when is there weight loss? Weight loss is when we eat less than our body needs to function or to run. Unfortunately, diets, which I have tried myself, and I'm sure many of us have tried, they generally tend to be very restrictive, sometimes can be unhealthy and generally are not sustainable in the long term. Especially fad diets. So, what we recommend and what is recommended is that to change the number of calories that you're taking in, people should eat more healthy and move more, increase their physical activity.

Dr. Gail Daumit (00:45:00):

Okay, so let's key in and see what we can learn. Next slide. So, the key lifestyle behaviors for weight loss. And these were in the ACHIEVE trial, this is basically, almost everything we tried in the ACHIEVE trial was for eating healthy, we're going to avoid sugar drinks, and avoid junk food, eat the right portions, smart portions, more vegetables, and move more. Okay, let's go to these, let's break them down. So, let's talk about sugar drinks and junk food. This is a key way to eliminate excess calories and lose weight. I don't think people often know how much sugar and how many calories are in soda, energy drinks, coffee, mixed coffee drinks, juice drinks and sweet tea. It's a lot. And I think, especially in certain groups of people that at least were in the ACHIEVE trial in these day programs there's a lot of sugar drink intake, and also junk food.

Dr. Gail Daumit (00:46:09):

Junk foods basically, in general are things that taste sweet or salty or greasy. I mean, that's sort of in a nutshell, I think we can identify them. And then, the things that we can embrace are portions, smart portions, which may be as simple as eating less than something you would normally eat. But also, can be defined by the labeling on food, and then really eating more vegetables. Vegetables fill us up. They're all different kinds of textures, colors, shapes, they taste in different ways, they can be prepared in different ways. And they can be a positive focus when we're trying to avoid the sugar drinks and junk food that I personally love.



Dr. Gail Daumit (00:46:58):

But it's like getting a new relationship with vegetables is kind of how I like to think about it. And then also exercising every day to help with the calories. I know it can be hard, it's getting cold in many parts of the country, we have COVID. But really focusing aerobic exercise for at least 10 minutes at a time. This could be really brisk walking. And then if you're helping yourself, someone you love or somebody you take care of, in addition and in conjunction with what I said high impact behavioral weight loss goals are very helpful to set.

Dr. Gail Daumit (<u>00:47:36</u>):

So, you don't have to do all the things that I said on the previous slide all together. That's kind of super hard to do everything at once. But pick one or two behaviors that will impact your weight, identify a goal that's very specific, like I am not going to have regular Coke, for example, this week. It's specific and attainable and start small. So, it's just regular coke, you can I'm not maybe dropping everything that I like to eat, the Doritos or whatever. But starting small builds confidence and self-efficacy that someone can make health behavior change. And people might need to stick with that goal for several weeks before moving on to add another goal and that's really okay.

Dr. Gail Daumit (<u>00:48:23</u>):

When we're working with other people and with ourselves sticking to the key behaviors and repeating them is helpful. Don't worry about the percent saturated fat or the number of carbohydrates in something focus on just avoiding the junk food. Focus on simplicity of messaging. And so sometimes it's TMI too much information if you focus on calories. So, consistency of messaging helps adopting these behaviors over time, stick to them, and repeat and you'll be success. The next slide is about accountability.

Dr. Gail Daumit (<u>00:49:04</u>):

So, it can be helpful if you're helping someone to lose weight to monitor progress. Or if you're helping yourself. So, weighing in, focusing in on, following up on the high impact behavior goals. How did it go that week? Do you want to choose another goal, tracking progress towards those, writing down what you eat and drink and what you exercise? That can help increase awareness about what you're doing and identify patterns in eating and exercise.

Dr. Gail Daumit (<u>00:49:40</u>):

The next group of risk factors and I think we'll then have cover them all, about what we can do. So, what about blood pressure, diabetes and cholesterol. So now these are affected by healthy eating, exercise and to certain extent smoking. But let's talk some about interacting with the medical care system. So, in brief, and this is really probably the topic of a whole other talk, be empowered or help those that you love to be empowered to know the guidelines. I've listed two websites at the bottom of this slide, which is the American Heart Association, and the American Diabetes Association.



There are guidelines that are written for the public. There are some for medical professionals, but there are guidelines for the public there that you can learn and you can then be an advocate with your doctor in asking questions about your health in these areas.

Dr. Gail Daumit (00:50:46):

Something else that you could do is that you can ask your medical professionals to communicate with each other, for example, about antipsychotics that might lead to weight gain, etc. You can ask an advocate for yourself and for your mental health and medical providers to communicate with each other. Some examples of just some specific things that you might want to be looking for. So, for someone who has diabetes, or is at risk for developing diabetes, who has pre-diabetes, hemoglobin A1C, which reflects several weeks of your blood sugar. There are goals for that, which is usually less than seven depending on the person. So, knowing those goals, knowing other things about diabetes, like getting your eyes checked, getting your feet examined. What is your kidney function, your protein in your urine, those are things important for diabetes that you can ask about.

Dr. Gail Daumit (00:51:46):

For high blood pressure, there are actually new guidelines from that are that the systolic blood pressure, the first number should be less than 130. And the diastolic blood pressure should be less than 80. Actually, those are lower blood pressure guidelines for the general public then then many of us have been following for the past however many years. So, it's important to ask your doctor about that, what is your blood pressure. And then for cholesterol. Should I be on a stat medication? It's not only your cholesterol level that determines whether or not you should be on a medicine to lower blood cholesterol. Because certain groups of people that for example, people that smoke or people have diabetes puts you in a different risk category for cholesterol. So, the cholesterol number itself is not necessarily the most important thing anymore, a risk score is used, similar to the one we used in the IDEAL trial. And you should ask your doctor about that.

Dr. Gail Daumit (00:52:50):

Okay, so let's go to the next slide. So, we're going to talk about kind of what we need to do moving forward. Next slide. So, okay, I've given you all a lot of information. Over the past time that we've been talking I've been talking. And I think that the way I think about this is that we need support in several different levels. So, we need to activate and empower people that are living with mental illness, their family members and supports to help them with their heart health. We need providers to be trained and engaged and have the time to spend. We need organizations to be engaged and say that this is important. And on the policy level, we need reimbursement and accountability for heart health and other physical health issues for people living with mental illness.



Dr. Gail Daumit (00:53:56):

So, at the bottom, I've listed some of the things it's like training, reimbursement, accountability, who's responsible, who should be helping out? And then also really just culture. I think that historically the specialty mental health organizations and training for psychiatrists and other providers is very fragmented from traditional medical... Or from primary care. And both need to kind of come towards the other so that we can really optimize the care that people living with mental illness can receive.

Dr. Gail Daumit (00:54:40):

So, let's review what we have. We talked about this really important public health issue. For people living with mental illness, that's heart disease risk and early mortality. We talked about the evidence, what has been shown to work, weight loss, smoking cessation, care coordination intervention. We talked about strategies and tools you can use to improve heart health, which include really believing in the ability for successful health behavior change, I think that goes a long way. And then really the need to scale up and disseminate these evidence-based practices, which is going to require addressing issues at multiple levels in order to do that. Okay, I think that's what I have. This is the website for our ALACRITY Center, which has all of our projects and here's how you can contact me. And yeah, please reach out.

Dr. Ken Duckworth (00:55:41):

Excellent. One of the first questions while we're on the topic of ALACRITY, one of the questions is, can I participate in a future study at ALACRITY?

Dr. Gail Daumit (<u>00:55:52</u>):

Yeah, that would be great. You can email me directly. I think some of what we're doing now, I mean, the specific projects are, in terms of being a participant are Maryland-focused. But I've been doing a lot of things that are not just limited to Maryland. So please just contact me directly, and I will be in touch.

Dr. Ken Duckworth (00:56:12):

Okay, we have a person with a strong statistics background. "Is there any magic to the seven-pound weight loss? Or is it really the idea of a 5% or so of your body weight?"

Dr. Gail Daumit (<u>00:56:24</u>):

Right, so I didn't show you... Yeah, so I didn't show you-

Dr. Ken Duckworth (00:56:28):

But they are paying attention. It's a good question.



Dr. Gail Daumit (<u>00:56:30</u>):

Yeah, that's a great question. And I actually did not show that slide, because I was trying to limit the number of slides, and I probably could have done more. So, 5% weight loss is generally what is used in weight loss trials in the literature. That actually was not one of our pre-specified outcomes. However, we did have and we did publish the percent weight loss that we attained, the number that has 5% weight loss, and it was statistically significantly higher. I can probably look for it while I'm answering the other questions, but it was higher. It's really more about 5%. I think that... Yeah, you're correct.

Dr. Ken Duckworth (<u>00:57:21</u>):

Every pound is a good pound. There's no magic to seven pounds.

Dr. Gail Daumit (<u>00:57:30</u>):

Right, yes. So, we had 38% in the intervention group, with at least 5% weight loss compared to 23% in the control.

Dr. Ken Duckworth (<u>00:57:41</u>):

Excellent. All right, I'm going to have you take a deep breath, stretch or anything, there's a question for me. So, I want you to relax for a minute Dr. Daumit. You've been working rather hard. Back in the day, when I was young, I observed the premature cardiovascular risk from my work at a community mental health center. And I noticed that I had gotten very good at organizing culturally thoughtful, funeral services. And after about six months of that, I realized that I should be working on prevention. I got promoted to be the State Medical Director of Massachusetts and I did a primitive study, I'm sure by Hopkins standards, matching death records with people's diagnoses. And I got concerned about this. So, when I became NAMI's medical director, we did a version 1.0 of Hearts and Minds.

Dr. Ken Duckworth (00:58:30):

This is a program that we had, which again, back in the day, the evidence wasn't as good. But we did have a sense that smoking was quite bad for your health. And it was a common problem in our population, that obesity is a side effect some of the antipsychotic medicines in particular, and some of the psychotropic medicines, and that our culture in mental health care and medical care is neither integrated nor affirming of people's lifestyle choices, which is what you were speaking to.

Dr. Ken Duckworth (00:58:59):

I'm delighted to report that hearts and minds is going to make another run at this. If you've listened to Dr. Eden Evins and Dr. Naidoo before Dr. Daumit, you realize that there's a smoking cessation literature, a nutrition literature, and today a cardiovascular and a master plan to reduce mortality and morbidity. We're going to work in '21 to put together a re-upped improved version of Hearts and Minds 2.0. I want to thank the



person for asking that question. They said they had used that program and helped a lot of people with it. That makes me feel very happy that even our relatively primitive 1.0 was somewhat helpful to you and I'm grateful for that. We want people to have both quality of life and quantity of life, and we're going to stay on this topic. So your break time is over. But there it is.

Dr. Ken Duckworth (01:00:00):

So Hearts and Minds, to be continued, we're going to stay on it, we're going to try to work this problem to improve our web information, and to do everything we can to make it easy for people to know this ever changing literature. There's also a question about smoking cessation in more detail, I want to encourage you to listen to last month's talk, which was an hour devoted to smoking cessation with a serious mental illness. The question for Dr. Daumit. Is "Do these smoking strategies work for people that are vaping?" Is this a variation on a theme?

Dr. Gail Daumit (01:00:35):

Oh right, the vaping. I am not an expert on vaping. Vaping is very complex. I mean, I think, may be even more addictive than cigarette smoking. I think a lot of work is needed on vaping. I think the strategies are not... I don't know, if they've been shown to work, I don't think they would be bad to try. They're not dangerous to try. I don't know if that makes sense. The behavioral strategies for sure could be used. I know that Eden Evins is actually very, very interested in this topic. And is doing some work in the area. But we really need more funding and work. But I hate when people say we need more work.

Dr. Ken Duckworth (01:01:26):

Well, we don't know everything. The research literature is actually much more advanced than it was a decade ago, for this topic in large measure, thanks to your efforts. And I think that it's very important to get this information out to people. Let's talk about the role of peers. You probably know the CHOICES program in New Jersey, the choices program is consumers offering a peer support to help people quit smoking. I wanted to ask how you think about peer connections, peer relationships, peer mentorship, as it relates to these health outcomes.

Dr. Gail Daumit (01:02:00):

I think peers are critical. I think we need to be doing more work with peers. That is part of what I am trying to do. But I mean, just I am a researcher, I think we need more resources devoted towards peers and kind of the connection... I think that there is sort of this parallel in the world, kind of the non-mental health world or whatever, with kind of community health workers and sort of this. I think we need to do more work to enable peers and have them more integrated and engaged and paid to work in this area. So, I don't know if that's like specific enough an answer.



Dr. Ken Duckworth (01:02:56):

So, the answer is, directionally peers are important. We need to study it better to know how best to deploy them, but the peer community culture makes a difference.

Dr. Gail Daumit (01:03:08):

Absolutely.

Dr. Ken Duckworth (01:03:10):

You mentioned a person's Framingham Heart risk score. I wanted to know if you could discuss a little bit the Framingham Heart Study which I consider the greatest study in the history of American public health, and how a person might calculate their risk knowing that many risks are modifiable. Your age, gender, and race are not modifiable, but there are many other factors that you discuss that are modifiable. So, I wanted to just take a minute on the Framingham Heart Study and how people can get their risk. You mentioned the Framingham Heart Study risk.

Dr. Gail Daumit (01:03:46):

That's great. And so, okay. So, Framingham refers to Framingham, Massachusetts, which years ago, before my time was the place where a cohort study was started. It followed a population of adults, mostly white adults, and did some baseline, did some different assessments of kind of their cholesterol and their blood pressure and whether they smoked or not, and their family history and followed people over time. And when people went to the hospital for a heart attack or stroke or other issues, those events were tracked.

Dr. Gail Daumit (01:04:41):

And so from this information that was collected over a number of years, there was a risk equation that was created that could predict if you're 45 years old and you smoke and you have diabetes, what is the risk in 10 years that you were to have a heart attack. Because they tracked these thousands of people. And so, they knew whether or not they actually had a heart attack because everyone's records from the town are collected.

Dr. Gail Daumit (01:05:21):

So that was sort of how it started. And then since that time, they've followed children of these individuals, and I'm not even sure if they may have done the third generation I don't know. And the study kind of has expanded with different measures. So, what you come up with then is that there are certain risk factors that you can't change. Like your age, which keeps going up and your risk keeps going up. Well, you can't change your race. Anyway, sex is a little bit different I guess, we can change that but sort of biologically in terms of whatever hormonal influences that you may have had growing up in general, we'll say that you can't change sex, even though you can.



Dr. Gail Daumit (01:06:09):

So then what happens is these other risk factors that are modifiable are things like your blood pressure, your cholesterol, and whether or not you smoke. And then there is a variable in there for diabetes. So those risk factors that you can change are the ones that really that we focus on? I don't know if that answers the question and essentially, it's given in a percentage. So, you would be considered to have like a high Framingham risk score if your risk was like 10 to 20%. Low would be like less than 5%, or maybe less than 10%. Does that help? And there's a tool that you can calculate yourself online. And I think it's the American Heart Association has it on that website. If not, I can forward it. Where you input, your age and all the information and it will give you your risk score that you can talk about with your doctor. I think you're on mute Ken, I don't know if you're talking.

Dr. Ken Duckworth (01:07:13):

You can change some of your variables. So, if I were to lose 15 pounds, 10 pounds, 5 pounds, would my risk improve? So, it's a helpful tool. It's the Framingham Heart Study risk calculator. And that's a good way to think about this. Another question, let's talk about diet, the DASH diet, the Mediterranean diet. These are obviously, with NAMI you're going to get good questions.

Dr. Gail Daumit (01:07:41):

Yeah, these are great questions.

Dr. Ken Duckworth (01:07:42):

Let's talk about the DASH diet. Let's talk about the Mediterranean diet as ways to reduce cardiovascular risk.

Dr. Gail Daumit (01:07:48):

Yeah, those are both great. And when I said you shouldn't have quote, a diet, I didn't mean those. I meant that you shouldn't just eat grapefruit forever, for a month or something. That's what I meant by quote, diet. The DASH diet, which was developed by my mentor, Larry Apple, is essentially high in vegetables, low in salt. It's low in the bad kind of fat. It has low fat dairy; it has the right amount of protein. I mean, the DASH diet is great. You can also find it I'm sure on the Heart Association website. If not, I'm happy to forward. That's the kind of diet that we want people to have.

Dr. Gail Daumit (01:08:39):

The ACHIEVE recommendations are consistent with the DASH diet. However, some people might find the DASH diet to be, I don't want to say complex, but just a little hard to go on right from the beginning if you don't have experience with kind of your diet intake. The Mediterranean diet similarly is there's a lot of fish, there are healthy oils, there's a lot of vegetables. Those are great choices for diets to follow. Again, I didn't mean that people shouldn't have quote, a diet. I just meant that kind of more of the fad



diets are things that we would not recommend. And again, the recommendations that I was giving you are also more for people that might not be able to follow a more complex guidelines on a diet, if that makes sense. So, like if you're only looking to do a couple of things. Cut out the sugar.

Dr. Ken Duckworth (01:09:47):

If you're only looking to do a couple of things get rid of your saltshaker, because that directly connects to hypertension. Eat vegetables, because it has phytonutrients, provides fiber. Is that correct?

Dr. Gail Daumit (01:09:59):

Yep.

Dr. Ken Duckworth (01:09:59):

And see if you can move more and lose that 5% of body weight. Is that a brief summary? Like if you can only pick a few things.

Dr. Gail Daumit (01:10:09):

Sugar drinks, I guess is key.

Dr. Ken Duckworth (01:10:11):

Sugar drinks. Okay, sounds good. A lot of interest in a lot of areas of what you've discussed. So of course, I won't be able to touch upon everything. How do you think about the risk benefit assessment of an antipsychotic medication? Let's say somebody has schizophrenia. The antipsychotic medicine helps them with their schizophrenia, but not all second-generation antipsychotics are created alike, in terms of their cardiovascular risk. So, you're a person who travels both in internal medicine and in the Department of Psychiatry. How do you think about that, in terms of prescribing antipsychotics? The less metabolically active ones per square inch appear to be somewhat less effective? This is a broad strokes statement; this is not my commentary. Feel free to disagree with that assessment.

Dr. Gail Daumit (01:11:07):

So again, I'm a primary care doctor. And I work in a large kind of academic setting where it's not like I'm in a remote rural area where I'm prescribing antipsychotics myself and making those choices. So, a few comments, one sure if you can have an equivalent effect on symptom control or functioning in life with an antipsychotic that has a better metabolic profile, I mean, go for it. I think most people would agree that sure, if you can do that, that's great.



Dr. Gail Daumit (01:11:53):

I think that the people that have been in my studies, again, I have worked with a more symptomatic population that is in day programs, not working, etc. And those individuals, there were... Okay, let me back up. I think that it's really important to have the psychiatric symptoms under control, so that someone can have the best life that they're able to live. I also know from our experience, at least in Maryland, that many, many of the participants in our trials have been on multiple psychotropic medications. And, again, I'm not a psychiatrist, so I don't want to comment on kind of over prescribing or whatever. But people often are on more than one agent.

Dr. Gail Daumit (<u>01:12:43</u>):

And it's not just the antipsychotics that can affect weight. So, I think, I guess, regardless of the medicine someone takes, I think that the lifestyle strategies that we've talked about today are really important. Because no matter if you're on one, two, or three medications, or what categories, that the lifestyle strategies can always be used. I don't know if that's helpful.

Dr. Ken Duckworth (01:13:08):

That's helpful.

Dr. Gail Daumit (<u>01:13:08</u>):

And I think communication and coordination between psychiatrists and primary care can also be helpful. So, if they know that someone's starting something, and then watch the weight more closely, and things like that, and switch as needed. As opposed to kind of waiting a couple of months, and then there's a lot of metabolic effects. There's not one right answer.

Dr. Ken Duckworth (01:13:33):

That's right. But I think you've described kind of the risk benefit assessment, lifestyle matters. No matter what medicine works for your psychiatric challenges. About three, four questions on smoking, which I'm going to skip. I'm going to let you know that NAMI just got a grant from the Smoking Cessation Leadership Center, and put a lot of love and time into our resources. On the NAMI website. We consulted with Dr. Eden Evins, who Dr. Daumit met. We have animation, we have quitting strategies, we have a good understanding of the ways to approach it. I would mention that the average person quits multiple times before they're actually able to complete quitting. One of the smoking questions has a, I just can't seem to quit component to it.

Dr. Gail Daumit (01:14:20):

Yeah, I forgot to mention that.



Dr. Ken Duckworth (01:14:22):

Dr. Evins may have said between five and seven times for some people, but it's a wide window. So I think it's the idea that you can participate in this over and over again until you get it. And people do get it and people can quit smoking. Last question for you, Dr. Daumit, it's a question about hemoglobin A1C, which is of course a chronic measure of the amount of sugar floating around in your blood and is a very exquisite way to think about risk of diabetes.

Dr. Ken Duckworth (01:14:53):

So, this again, another sophisticated question again, our audiences top notch. So, they're talking about hemoglobin A1C. If they were to participate in a lifestyle regimen like this, that you're describing attending to their exercise and making sure that their nutrition is attended to, how might you see somebody's hemoglobin A1C change over time?

Dr. Gail Daumit (01:15:17):

That's a great, great question. So, we did measure hemoglobin A1C, but there wasn't like great statistical power to show like kind of a lot of change. But just in general hemoglobin A1C this, this measure of blood sugar over several weeks can change. Weight Loss and exercise can change blood sugar, I think relatively quickly. Well, weight loss, I guess it's going to be a little bit more gradual. Depends on the speed of the weight loss, but it could go down in weeks to a couple months, I think. Generally, it should follow kind of the speed of the weight loss. And kind of the persistence or the level of the physical activity. I guess that's sort of more of a vague answer.

Dr. Ken Duckworth (01:16:13):

So, hemoglobin A1C is an indirect measure of your diabetes control. And what you're saying is by attention to these lifestyle, nutritional aspects of your life, you can in fact, improve your number.

Dr. Gail Daumit (01:16:27):

Absolutely.

Dr. Ken Duckworth (01:16:27):

You will have less sugar traveling around. So, blood sugar is an acute measure, like today's weather, hemoglobin A1C is more like the climate, what's been happening in your body for the last what is it, 60 days, perhaps?

Dr. Gail Daumit (01:16:41):

It's approximately that long.



Dr. Ken Duckworth (01:16:46):

Approximately that long. So, it's a little more the long-term pattern. And that's one way to think about your blood sugar control. Well Dr. Daumit, this has been a fabulous discussion of what people can do. And I love the idea that this is a research base that offers hope. And while it's not easy to do some of these things, it's important to do them with people you care about, with peers with community. We're going to take some efforts at Hearts and Minds, version 2.0 with updated science in this coming year, that's going to be on my performance review, I feel sure.

Dr. Gail Daumit (<u>01:17:24</u>):

I'm happy to help with that.

Dr. Ken Duckworth (<u>01:17:26</u>):

I'm delighted that you would say that and thank you for all the research you're doing. These questions need answers, and people like you, and you, in particular are trying to answer them. So, I'm going to turn this back over to our CEO, Dr. Dan Gillison.

Dan Gillison (<u>01:17:45</u>):

Thank you very much, Ken. And thank you, Dr. Daumit, for giving us all of your time and insight and experience and this wonderful information. This is a great, great, Ask the Expert to wrap up our year. And to actually tee us up for 2021 very rich information. And what's so compelling about our Ask the Experts is the engagement and the conversation and going back and forth in terms of asking and answering the question. So, thank you for being so engaging in that.

Dan Gillison (01:18:24):

And to our Chris Cuomo, Ken Duckworth. Thank you, Chris Cuomo has nothing on you. And we are always so fortunate to have you facilitate these for us and be our host. To our executive producer Teri Brister, you do an incredible job of producing these and the team. This is like going to a theater production, or a concert or an orchestra performance, where you hear a lot of different things until they open the curtains and then you hear the performance.

Dan Gillison (01:19:01):

So, this is brought to you by an executive production team, with Teri Brister, Jordan Miller, Jessica Walthall and Christina Bott. So, I want to thank them because they're the nucleus in the project group behind this. So, with that said, we appreciate all of you all participating in this Ask the Expert. We look forward to seeing you next year.

Dan Gillison (<u>01:19:27</u>):

And as the closing slide says, the work that we do is a result of donations. And we want to make sure that we mention that to you, and we asked for you to be a force multiplier



for us. Talk about NAMI to others, let them know what we do, and why we do it, and why you do what you do.

Dan Gillison (01:19:50):

And also, we would encourage you to donate and you'll see the www.nami.org/donate. So, with that said, we really thank you. We wish you a very safe holiday. We know it will be different but in it being different, we hope that you can also enjoy time with family, and also be appreciative of what we all do have. So, with that said, we wish you the very best over this holiday season. And we'll see you in 2021. Bye now.