## Introduction to Health Data and Heads Up

Why are rates of chronic disease are so high? Especially when you look at like the rates for pre-diabetes and diabetes with kids. That is just tragic.

The bigger bodies out there, they don't want you to know. And what you develop with Heads Up is exactly that. We can do this stuff easy and fast and cheap and like a tenth of the price that would take to do a clinical trial.

Meet Dave Korsunski, founder and CEO of Heads Up, the platform turning your health data into clear, actionable insights. After leading tech teams at VMware and cloud physics.

He's now helping people make sense of billions of data points to take control of their health and live better every day. One of our customers here in Fort Lauderdale, she figured out she was pregnant from the order.

So you start to see how these sensors can tell us things that we have not even been able to feel yet. That's an interesting notification. We now can get feedback from our body every single day.

And we as individuals now actually have better data on our health than the doctor. If I'm a patient and I am utilizing a platform like yours and i'm keeping track of all of my health data.

I go to my clinician and they can't see what I see. That's a problem. So one of the things that we do in our system is set up the filters and pull out the clinically relevant signals from the sea of noise and then bubble those up so that an appropriate action can be taken.

When it comes to health data, what are some misconceptions that people have out there? That's a really good question. Welcome to another episode of a healthy point of view podcast.

I'm your host Sam Sahada. And as usual, we're bringing experts from all over the world in health, wellness, beauty, and mindset. Today we have a guest.

You guys know how much I love technology when it comes to health and wellness. We are in the future and who knows what there is to come in. The future.

Right? So, with everything changing with AI and all of this technology and data, who is actually leading the way with all this data? I know who. It's the guy who's sitting here in the room.

Today we have Dave Korsinsky. Did I say that right, Dave? You nailed it, Sam. Awesome, man. I always butcher names. Pleasure to have you here on the podcast.

You know, we've we'd been able to connect, go out to dinners, hang out at the conferences. Yeah. And I'm seeing what you're doing, Man. In your moving mountains when it comes to the health and wellness.

Yep. Then you come from a background of tech, you know where now you take in that expertise in tech. and bringing it into the wellness side, which I've had the opportunity to meet a few different guys in the tech world that are doing stuff in wellness space.

And by far, man, I'm telling you, you're doing something that I am truly passionate about.

## Dave Korsunskiu2019s Tech Background and Origin Story

I told you I was in process of writing a book called Your Wellness Data, in which you are definitely having a chapter

in that book. Awesome. Because what you do is something is really going to allow people to take control of their health.

So I want to talk about it, about how did you even get here? Well, as you mentioned, I was previously working in the high tech world in Silicon Valley.

And going back like 2010, 2011, 2012, none of this stuff was on anybody's radar. This industry was nascent. But there were some small groups of people in the Bay Area that were starting to capture physiological data on their own bodies and starting use that to figure out how to optimize the health of the system.

Some of early guys at that time were Tim Ferriss, Dave Asprey, Rob Wolf, Ben Greenfield. There weren't a lot of them. But there were enough that there was an early start of a movement of people who were looking at ways they could optimize performance of the human body as a system.

And in my day job, I was doing the exact same thing, but instead of human bodies, it was a computer system, so my job was to go into some of largest corporations in the world They have hundreds, thousands, in some cases, tens of thousands of servers in a data center running entire corporations.

And it was my job to go in there and analyze the performance of all of these computer systems. figure out which ones were running suboptimal, why, and then be able to go to these companies and show them how to optimize the health of all those systems.

So I was working for a company that was collecting over 80 billion data points per day. Oh, wow. And bringing all of that information into Amazon AWS.

And I could then go back into these companies and because I had access to the right data, I can show them problems that have been there for years that they didn't even know they had.

So I got really, really good at working with very large data sets and optimizing the health of a computer system. A computer a server in a data center is generating hundreds of thousands of data points per day.

All of these performance statistics that tell you the utilization on the microprocessor, the latency on disks. There's thousands of performance statistics per system and then there's thousand of systems.

So you can start to see how very quickly you end up with billions of data points per day, right? So I got really, really good at that and I also started getting really into understanding my own body and my health.

And as you know, Sam, the human body now is generating hundreds of thousands of data points per day. I've got a continuous glucose monitor on my arm, sampling every five minutes.

I've got an Apple watch on my wrist, sampling hundreds of metrics, heart rate every five minutes, physical activity, respiratory rate. I wear an aura ring when I go to sleep.

It's measuring every single heartbeat. Wow. So just me alone, I'm no different than the server. Right. I am generating these data points and we need systems that make it easier for the individual to use that information to make smarter decisions.

All I did, Sam, was say, hey, i know how to do this on a computer system, but there's no way for me to this as a person who wants to be in charge of my own health.

There was like some dog shit patient portal from my doctor. That was mostly useless. I had a bunch of DEXA scans sitting in PDF in Dropbox. Right? I called on the old doctors and asked for the records.

They sent me stacks of paper. Like that is the most important data for me and the quality of my life while I'm above the ground. And it's just a fragmented mess.

Right. So then it is like, how do you solve that? And as an entrepreneur, I am glad I was naive. Because if I knew what I getting into when I said I want to go do this, probably would not have taken it on.

because it just turns out to be a massively complex engineering problem. But to answer your question more directly, it was taking what I was able to do with computer systems and then just applying that same logic to the human body.

That's amazing, man. It's like you allowed them to melt together. Yeah. Right. And you know, you really start thinking is Little by little throughout the years, I'd say within the last decade, you started seeing a lot of these different tools for health data, like the Apple watch or ring, the continuous glucose monitor.

All of those things kind of like pop up. But one of the things that you guys are doing, it's not just having these individual data points, but you're merging them together onto one dashboard.

So let me ask you something. One thing that I've noticed very recently, and you mentioned some of But there's a lot of these big biohackers that come from the tech world.

Dave Asprey, Brian Johnson, right? You said Ben Greenfield comes from that? No, he was one of the early people in that industry. But I've seen a similar pattern where you have people who have a very strong engineering mindset come into healthcare.

## Wearables, Biomarkers, and Continuous Health Tracking

Take that engineering problem solving framework that they've developed from solving very complicated engineering problems in hardware and software. Turns out you come into healthcare and you bring that fresh perspective and that engineering mindset.

And you can come in and do some really interesting things. Yeah, and I wanna hear your perspective on it. You know, obviously being a tech guy yourself, where when you look at like biochemistry or you're looking at the metabolic pathways and how this works and why you doing this, Is it very similar to the tech world when it comes to that?

I think it depends just how deep you go into hardware. Right. You know, for me, when I about those complex chemical pathways, it gets very, very intricate.

It's almost like circuit boards and motherboards. So if you're a guy designing circuits, microprocessors, memory chips, that to me seems like the closest analogy to these very complicated chemical pathways.

And just speaking for me personally, I never went down to that level of hardware engineering. I stayed one level above. But I would say that the comparison between circuit boards, motherboards, microprocessors.

You could make a comparison to these complex chemical pathways that happen in the body and how information basically flows through these systems or circuits.

Yeah, and it gives you the ability to actually have a bird's eye view of what's happening with your health, not just this one specific snapshot once or twice a year when you go to your general practitioners.

And it can kind of give you, I remember Her chief medical officer was my partner, Dr. Christopher Davis. Before he had COVID, he knew something was up with his body from his aura ring.

Absolutely. You know, and he new at that point in time he says, you know what, I think I probably got exposed and I have COVID. And he started doing certain things, certain remedies to try to shorten the time of having COVID you, know certain peptides and everything else.

So I feel like at this point with something like what you have developed gives people more of the ability to actually

have a closer look to their health on a continuous basis, right?

Well, absolutely. And by the way, there's other signals. I was at one of our customers here in Fort Lauderdale the other day and spoke to a woman who worked there as a clinician.

she figured out she was pregnant from the Oura Ring. Oh really? Because you get that same temperature indicator and there's actually cycle data coming through the oura ring.

So not only are you getting notifications about viral illness, but like the fact that that she is pregnant. You start to see how these sensors can tell us things that we have not even been able to feel yet.

That's an interesting notification. Women's health and fertility is like a whole massive use case for sensors because there's fluctuations in temperature data that can be picked up through these sensors.

Now, when I got into this, none of these centers existed. They hadn't even been invented yet. How long ago did you get into it? I started getting into this whole world of health optimization like 2010, 11, 12. So like we had old school glucometers.

Right. We had the ketone strips that you pee on. Yeah. You know, we have DEXA scans. There really were none of the sensors had not even been invented yet.

So to see where the sensor technology is now is insane. The stuff we can measure every single day. And you mentioned the fact that we now can get feedback from our body every day, and we as individuals now actually have better data on our health than the doctor.

That's true. Because they have your snapshot whenever you go in and then you leave and you're a black box at that point. Now we as individuals can make a change on a Monday and get the feedback on Tuesday.

So we, as individual now, can self-calibrate so precisely and it's so powerful to make these changes in real time that it is just incredibly exciting.

It's empowering. It's transformational for people just to be able to course correct very quickly. engage in an experiment to improve your health, and you'll know within a day or two if it's benefiting you or not.

Then you go get the blood tests every six or 12 months. That's more like the episodic data. But between the the, the Blood Test, you have all this other data every single day to tell you how well you're doing, of course, correct.

So it just gives you a continuous data feed to continue to optimize your Health. And I'm sure you know, once you make a change and see it work, it's exciting.

It is. You're like, OK, now what's next? What's the next optimization? It's part of that reward system. Right. Totally. So that data, when you see it going in the right direction, and even if you don't see going on the direction is it still allows you to make a course correction.

Absolutely. And then at that point, you know, there goes the reward that you have, which is like OK. I'm going to do better. Yeah. Especially if a guy like me or like yourself, we just want to keep on excelling.

Let's make it better, let's get better and make you better Well, you know, the other thing I like to do, Sam, is I'd like make sure that with every calendar year that I get older, I'm looking back at all of my historical blood tests, and I want to be better than I was 20 years ago, right?

I'll want my testosterone levels to better. I will want lean muscle mass numbers to get better, want VO2 max numbers. There is no reason why. with all of the tools and education and information we have now that you cannot continue to get better every single year.

So I look back at like my VO2 max levels from 10 years ago. I'm like, oh man, that's where I was 10 ago? I gonna be better than that 10-years-older. Where was my lean muscle mass on my decks at 10 year ago, I wanna be be that today.

For the competitive people out there, You can look back in your history and continuously get progressively, physically stronger and better and more capable every year you get older.

And the best part is having something where you have that quantifiable data readily available on a dashboard. That's the challenge. Allows you to actually be successful with that data and be able to visualize it.

Now you said something about for the competitive people. You know, one of the things that came to mind is like athletes, professional athletes or aspiring athletes.

How would something like this benefit someone like that? Anytime you are an individual where your performance on a day-to-day basis means the difference between success or failure, or in some cases, millions of dollars.

Think about a golfer who's on day four of the Masters and they're in the hunt with four other guys. And one guy is precisely monitoring all his physiological statistics.

## Clinician Workflows and Filtering Signal from Noise

And he knows exactly where his heart rate variability, his resting heartrate, and his sleep numbers have been for the entire week. And, he's working with a trainer who knows how to absolutely optimize that individual for that final round.

Versus the other athletes. Granted, they're all fit, all world class. When it gets down to that level, the difference is minute. That's the different between winning and losing.

And that one individual has gone through a protocol the night before that allows his body to have the optimal recovery. And he wakes up in the morning and his numbers are at the optimum level.

The chances of that individual going out and succeeding versus the other competitors is gonna be significantly higher. And we work with clinics. One of the clinics we worked with is Podium Sports Medicine, Dr.

Kevin Sprouse. He works with Tour de France and PGA golfers. Okay. and he's monitoring every physiological parameter. Knows their baselines, knows how to get them to baseline, and has got all the data So when you have that, now that could be an athlete, that can be someone running a company, That could a mom managing a family.

So there's lots of implications there, but when get to the professional level, having the data can the difference between success and failure. Yeah, I can definitely see that.

Now, Dave, you know, one of the things when you're talking about the clinic that manages a lot of these athletes, right? The difference between a medical provider that has access to this information versus a medicine provider who doesn't.

In my opinion, I think this is going to be a more successful medical providers on treating their patients with these type of definitive treatments for whatever's going on, Agreed.

I think, Sam, we're still in an era where a lot of conventionally trained medical doctors may or may not be as familiar with a lots of the new sensor data.

So, in the example I gave, he's a medical doctor, a trained conventional medical but also knows all the cutting-edge sensor technology and studies all of the latest biohacking technology, vets it out, and then decides if it's ready to be rolled out to an athlete or not.

Okay. So, that individual has got the skill sets of traditional healthcare and that means looking at a lot of conventional medicine blood work. but also knows how to go really, really deep into resting heart rate and HRV and the stuff that tells you day to day how well that person is recovering.

Yeah. So I think the opportunity is one of the things we want to do is is educate more clinicians on how they use what I call the real time data. I. Think there's still a long way to.

Go there. And we have a lot of clinicians that listen to the podcast, you know, over four thousand doctors in our network. And I want to be clear on this with the clinicians of how important it is, because if I'm a patient and I am utilizing a platform like yours, right?

And i'm keeping track of all of my health data to a granular the way that you can. And I go to my clinician and they can't see what I see when it comes to.

My health. That's a problem. Like, I want a clinician who's going to be able to see not just what. I. See, but more than what? I can see. Yeah. Right.

And that's why I'm going. To the professional. So I think it's probably extremely important for clinicians to really consider start dabbling into the tech with their patients.

You know, so they can actually have more of this data and not let your own patients because I'll tell you, I remember when I used to actually work at the clinic, guess who would treat our patients before we did?

Dr. Google. Yeah. So, you know. Do you want Dr Google treating your patients or do you wanna be the one who has access to all of their data? And be able to really treat them based off what they have.

Are you seeing a lot of clinicians now becoming more interested in this type of information? Primarily when we step out of the insurance medicine world, obviously, it also depends how the practice is structured.

So there's obviously a lot more time and effort involved to do this level of analysis. It's more like a concierge type of service. Yeah, so it's going to depend on how they offer their services.

And so the ones that will go really, really deep into like the real-time day-to-day lifestyle optimizations, it takes more time, and it take more expertise.

You're probably going to expect to pay more for that. So I think it just depends on the type of practice, the types of services they offer. It's also a lot of data even for these clinicians.

And you can imagine, Sam, you have a hundred patients on your panel. and they've all got lots of sensors and their all beaming in all the data, it's non-trivial to figure out what do I even pay attention to.

So one of the things that we do in our system is we filter the date and only bubble up the really, really important metrics. For example, we would set up a system to say, only ping me if one my high performance athletes on the system has a temperature fluctuation of more than one degree.

Or another very common one is only notify me if their heart rate variability has gone down for three days in a row. Maybe just the day-to-day variance is not so important, but if it's gone for more then X, say three day in row, and now they're say 15% below their baseline.

that's when I wanna get notified. So part of the work we have to do with our system is set up the filters and pull out the clinically relevant signals from the sea of noise and then bubble those up so that an appropriate action can be taken.

Does that change depending the medical provider and what they request? Yeah, they all have their own specific ways they want things set out. Oh, wow. One organization will come to us and say, for example, we need to get

notified if this individual's, let's just take blood glucose for example, has gone up by more than 15% from baseline over the last five days.

And the next organization will say, well, we wanna look at the past 10 days and we want an alert on 20%. So every group has their own parameters that they're looking at.

It just depends on what type of practice they run. There's a weight loss clinic, The diabetes clinic is a longevity clinic. They're all wanting to look at different numbers.

they all want to analyze and look for different signals in the data. So part of what our system does is go in and and very prescriptively track the metrics they need and find the exact signals to the noise that they're looking for.

So that doesn't seem like an easy engineering job to do. No, it was extremely technically complex because you've got 20 different devices that a person can wear.

They're all sending you data in different formats. they are all send it to you in time stamps. There in every time zone across the globe. and you have to basically run this one analysis at midnight in the user's local time zone for 20 devices all over the world and look for a very specific pattern in data.

So the ability to do that took me years. To get to the point where we could do, that was just like years in making, even being able to get the right engineering team together.

to be able to even have a crack at doing that kind of thing. How many engineers do you have? And right now there's probably 20. Oh, well, working on on all aspects of the platform.

## Data Sources: APIs, PDFs, and Biohacking Interventions

So how does that process work? Like when the data is actually going into your platform? Sure. Is it like through a back end API that that's integrating from the or reading the Apple watch?

Yes. Just feeding it automatically. Or is there like a push pull type of deal that is happening? How does it work Yeah, great question, Sam. So let me just I'll break it down into like the the classes of data that we have to swallow.

Yeah. Those we typically pull data from their API. And we're basically pulling them for updates. So all that data comes in automatically. We build the integration once.

Let's just take Aura, for example. Once the data is just flowing. You know, we make updates, We enhance the integrations when Aure comes out with new metrics.

There's ongoing maintenance. but you have a class of sensors that you just do an integration and they're transmitting. The other class data is what I would call traditional blood work.

Like you go to the lab and their gonna take your full lab panel. A lot of that data isn't PDF files or it could be your DEXA scan or your InBody or there's urine, stool, microbiome, saliva.

Hair, there's all these ways to capture these diagnostics. A lot of that data actually is trapped in PDF files. You ever gone to the lab, you get a PDF file back.

That data, what we do is our system can go into the PDF Files and read all the numbers in the pdf file, extract those numbers and store them in a database.

because you're trying to put a trend line together. You want to look at the DEXA scan lean muscle mass over 10 DExA scans over ten years, or you've got blood work in PDF from the last 20 years.

So the second class is like getting data out of PDF files. Okay, so that's the second class of data. The third class is

data from things like cryotherapy chambers and IVs and supplements and all the things that we're basically doing to our health.

These are like the interventions or the biohacks. So let's say I do 60 sessions in a hyperbaric chamber. I wanna record how many sessions I've done and how much hours With HBOT as an example, typically they're gonna say, hey, you gotta do 40 hours in the chamber as kind of like just the baseline.

So how do you even know how many sessions you've done? So, how to we get data off that equipment? So we have ways to pull that information into this. Is that more like a manual process for that?

It's manual. Process for now. We're also working on some technology to make it easier to log those sessions by, for example, integrating with the software in the clinic where you book.

And we're also working on ways just to put a co-pilot in our mobile app where you just tell it, log three minutes in the cryo chamber and I had a skin temperature deviation of X.

So we are trying to make it more and more frictionless to get that data in. Because there's really not good easy ways to capture that information. No, I like that.

Even with the technician or the medical assistant or medical provider, they have to put certain things in the patient's charts anyway. So if you can pull that, hey, this person got an IV, that person came and did red light for X amount of minutes or hours.

I can see where that data can come from as well. Yeah, so an example might be, Sam, that the system detects that a particular individual is getting run down.

And we would detect that through a wearable that shows degraded sleep, elevated resting heart rate, HIV suppression, for example. Then they get a ping automatically from you guys.

It says, hey, time to come in for some self care. This is like something from the future. Not like my mind's going right now is I'm thinking about like when I was younger and I would watch one of these movies where like you're in the feature.

Yeah. And then all of a sudden it's like, Mr. Bond, you know. Currently, our system's showing that you created recovery. You need to go get your IV drip because your body's performing at 80 percent.

I want that. Yeah. That's crazy. On the struggle bus on the road for 10 days. If I got a ping that's like, hey, you need come in for an IV and some self-care and we have an appointment for you at 3 p.m.

I'm there. But Dave, the difference is I am talking to the guy who's developing this, you know. Yeah, we're doing this. We're building it. This is real.

we do this today. Every single day. Like this is not in the future. this Is real? We set these parameters up so that clinics can reach out and say, Sam, your your temp's been up for three days in a row.

Everything OK? Like that touch point from a medical provider. It's awesome. It's almost like you could always have your medical provider in your back pocket.

The way our clinicians explain it to us when they talk to their patients about it, as they say, it's helpful for them to know that somebody's paying a little bit more attention than they are.

It's almost like medical providers can probably treat their patients better remotely with this type of technology versus actually having people come in once or twice a year into their office.

I think you got the best of both. You know, they come once for twice year to do the physical exams, the scans, The

DEXA, blood work. But then you have the signals coming in every day that just tell you when someone needs an outreach because they're maybe trending in the wrong direction.

On the flip side, it could be pings that say, this person is absolutely crushing it. And just call them and figure out what the heck they're doing because their numbers are off the page.

Yeah. So yeah, we have this new model now where it's continuous proactive health care. That's the world that we want to create. Yeah, yeah. Well, what are I know you mentioned like DEXA, InBody, Bloodwork.

What are all the different devices for the listeners that are wondering, oh, you know what, I wear a whoop or I where, or a ring. Like what all are the devices that you guys have been able to integrate with?

So there's the wearables. You rattled off a few, right? Whoop, Apple Watch, Aura, Garmin, Withings. Those are going to fit. There's just lots of good ones out there.

The sensors get better and better, and more accurate with every successive generation. of these sensors. And these companies, by the way, have tens of millions of users and trillions of data points to mine and make sure that like everything they report is awesome.

You can get a VO2 max on these devices now. That's pretty close. So that's the first category. Get something that is going to give you good biofeedback on the quality of your sleep, your movement levels, and your heart rate variability.

Now that just a good quality wearable. Lots of great ones out there. The second would be the continuous glucose monitors. Those will really just help you self-calibrate your blood sugar.

And I would say that's probably one of the biggest ones that we all need to self calibrate. Because you go eat something and you don't necessarily always feel your sugar going to 180 after you crush the burger and fry and a beer.

But when you see the spike on the app, because it's measuring every five minutes, you start to figure out which foods are triggers for you metabolically.

And you started to make those course corrections. Extrapolate that over the next 10, 20, 30, 40 years of your life and you're not spiking blood sugar three to five times a day.

That's been a big one as well. So that's the second one. A third would be like a good quality body composition analysis at home. Just a scale you can step on periodically.

That gives you some good numbers. I have a scale at home, it's like a Tanita scale I bought 10 years ago. It does weight and body fat. When I go get the DEXA scan every six months, I just check the bodyfat number, It's pretty close to the scale of home.

So that gives me some feedback. And I'm always tinkering with body composition. Staying lean and strong is like an ever-changing algorithm as you age.

So that would be the third one is just some good body composition data. Then there's the blood work. Getting that stuff really helps you make sure you're dialed in on your hormones, on you metabolic health, Just checking that.

## Athletes, Performance, and Proactive Care

I have a hard time saying this, but I just lost a really good friend who was not paying attention to his health at all. And 50 years old, he's no longer with us.

That was a liver thing that's easily tested. You know what I mean? So just get that done once a year. So there's the

blood work. Then if you're working with a complex condition, A functional provider may want to start looking at things like microbiome.

So that would be like fungal overgrowth, parasites in the microbiomes. Right. They may start to look at thing like heavy metals in their body, you know, mercury, lead.

Yeah, I was going to ask about that. You know what? We live in such a toxic world. Yep. And right now there's a lot of talk, especially with the ultra processed foods and a of the toxins and the environment that People are really wondering, like, do I have a lot of these toxins in my body?

Is there any kind of integration or monitoring for that that you guys are connected with? There's tests you can do with regular blood work. Right. There are also more advanced tests where you'll actually ingest an agent, it's like a liquid that actually provokes the heavy metals to come out of your body and you can capture them in urine.

So I've done some of the more advanced tests for heavy medals. There may be other ways to test it, but if you have worked in environments where you're exposed to a lot of chemicals, that would absolutely be something to take a look at, especially if we're experiencing symptoms.

One of the clinics we work with in Mill Valley, California, they were working with an individual who was suffering from neurodegenerative symptoms, Alzheimer's related symptoms.

those were able to be treated and reversed because there was a heavy metal toxic load in the system. Yeah, I could see that happening, especially with a lot of first responders, right?

You look at the firefighter paramedics getting exposed to chemicals. I've had buddies that are, you know, SWAT team members that, are out training at shooting range and they're breathing in a lots of lead.

And, they come into the clinic and go through the chelation process to get rid of that. You know, the interesting part is that some people are a bit aware that these type of toxins are out there in their workplace, but a lot of them are not, you know?

And I feel that there has to be more of awareness. There has be a little bit more control of your own personal health. We're very dependent on other people taking care of us, right?

That's kind of like the system that we grew up in. And right now, Dave, you know, there's a big movement, the Make America Healthy Again Movement, which part of that is changing the course of medicine and holding people accountable.

I want to hear your perspective on what you think about the make America healthy again movement. And, everybody knows what I think of it and how much I love it.

But, having this conversation with you I'm going to chime in after I hear your perspective on the Make America Healthy Again movement. Well, admittedly, I have limited exposure to it.

I was just, well, you and I were both in Austin at the Biohacking Conference and attended a dinner there and got to listen to some of the messages that were delivered through that movement.

We do need to take a very hard look at why our rates of chronic disease are so high. Especially when you look at the rates for pre-diabetes and diabetes with kids.

That is just tragic. It's really the only word that I can think of. And why are they getting these symptoms? Why are getting diabetes at 12 years old?

And so what is it that we're doing or not doing, or putting in our bodies? That's why I feel that like, how do we empower people? For me, learning that the food I was putting into my body was sending my blood sugar off the

freaking page.

Nobody told me that. Like, I had to figure that out for myself. I have to go test my blood sugar after all these foods. And the only reason I figured it out was because I started going down this biohacking rabbit hole myself like part of that, you know, one of the things that like R. F. K.

Junior talks about all the time and a lot of people behind the Maha movement is that the bigger bodies out there, the people with the deep pockets, they don't want you to know.

Yeah. Does that ever put you in a certain position where you might be a bit afraid with what you're developing and where now people are going to actually be able to know, you know?

You know that that's the hill I'm ready to die on. You. Know what I mean? I'll be there with you, man. We'll clean up the list for that one. Yeah, I think what defenses do we have?

Like, how is the average Joe going go take on the big food companies? The way I wanna do it is give them the tools to better understand their own bodies so they don't put that shit in their system in the first place.

That's what I can deliver to people now. And whatever happens at policy level, I'm glad that that is happening there and the right people are taking a stance to really take on some of these fundamental problems with the health of the people in this country.

But what I can help you with today is I could help figure out How to make smarter, healthier choices every single day. So if you have one of those conditions, let's reverse it.

And if. You don't have. One, I never want you to get it, and I can give you that with data today right now. Right. Yeah, no, love that. That's kind of where I was going to go when I.

Was talking about the Make America Healthy Again movement. I'm totally for. holding our policymakers accountable, holding the food companies accountable.

Holding our pharmaceutical companies, accountable as well. But at the end of the day, we truly can't be dependent on anyone else but ourselves, right?

You know, I don't need a big Make America Healthy Again movement for me to be healthy. You now, i've been doing it for years. Well, We need you healthy, Sam, because you're part of fight.

The healthier we are, the stronger and the more resilient we're to go take on these big challenges in the world. That's true. But you know, where I'm going with it is what people have to do is they have be able to take control of their own health.

And what you have and what use develop with Heads Up is exactly that, is empowering people to be actually have access to the health data in a very quantifiable way where they can look at it, trend it and actually not be so dependent on someone else, but taking control their health You know, and for me, when I started thinking about let's make America healthy again, I think this is probably more important than holding the policymakers accountable, right?

Because once you have that data, guess what? It's going to be a hell of a lot easier to hold all of these other people accountable because now we got the data to actually show you that, you know all this other crap out here is not working and this the way that we need to go.

I could not agree more, Sam. I think let's take a couple of specific examples on that point. Many people who have significantly cut back their alcohol consumption once they started to see what it does to their sleep and their HR.

Oh, yeah. So you don't have to be a medical professional to wake up in the morning and see those numbers in

trash after you went out and consumed excessive alcohol.

## MAHA, Chronic Disease, and Personal Accountability

Don't get me wrong, I enjoy an occasional glass of wine, a glass a scotch, but I was oblivious to what it was actually doing to my body until I saw the data.

I'm sure you've heard conversations where once you see just exactly what it does to your recovery numbers and how it affects your performance the next day.

So just by having people look at those numbers of seeing people who have substantially cut back in a lot of cases completely eliminated alcohol. Right.

Let's take another example, which is foods that have an extremely high metabolic load on the body. This is one of the things that is really important to the Maha movement, these ultra-processed foods.

It's like a nuclear bomb going off on your blood sugar. And so if you can show that to someone, they get an alarm on their phone that says, you just hit 180 on you bloodsugar, what the hell did you eat?

And prior to that notification you had no idea that was happening to your body, You now are able to make that change yourself. So I agree with you. I think that's how we can arm people basically to start making smart decisions.

Then it comes bottoms up. You know, then you just have people making smarter choices because because they're educated. Yeah. They have the information they need.

Right. so, you know we're talking about a lot of the current data that goes into the to the platform that allows people to take control of their health.

Is the Platform utilized in any AI? So, great question. I think that's obviously the future. It is. Yeah. And so, where we can start to implement AI into our system is, well, there's lots of ways.

You know, one of the ways we're doing it today is even just this nightmare of getting data out of PDF files. That is a problem that we're using AI to solve because there's thousands of different PDF files out there and they all have different ways of reading that information.

Even when you go into a traditional electronic health record system, a lot of your blood work is in there as a PDF and it's actually an image inside a pdf.

It's like a fax. So there's just all this like really low resolution crappy PDF files out there. So we're starting to use AI to get that data out more effectively.

Other ways we can start to us it are just to make it easier to query your data. Like for example, just being able to have a real conversation to say, hey, pull up my sleep and recovery stats for the last 90 days.

and just graph it out for me and tell me how I'm doing. So having more of a conversational interaction with data, I think can be very helpful. Looking at numbers and looking at analytics is very natural for some people and very overwhelming for others.

So how can we start to use AI to demystify a lot of this information to simplify it, to make it easier to query, make easier process? Same for clinicians.

being able to log in and just, for example, have a natural language conversation to say, who are the 10 people that I need to pay attention to today? Or pull up a list for me of everyone who has a hemoglobin A1c above 7. So just making it easier and more intuitive to have interactions with data, finding very complex problems in data patterns

that are very subtle and would be otherwise difficult or impossible to detect.

Being able to look at someone's data and then query a system that can reference all of the scientific papers on a patient in your system with a specific condition.

So you log into Heads Up and you see an individual with certain genetic mutations and certain blood tests out of range. And you can query an entire knowledge base of research in seconds that could help you with decision making.

So there's scientific papers published every single day all over the world and a doctor can log into our system and look at a specific individual's data and then query that entire knowledge base in seconds and help them with decision making.

So who the heck knows where this is all going to take us, but I think the potential is incredibly exciting. Yeah, yeah, I could definitely see that. One of the things that just came up in mind is I know like when I look at our POS system at the stores, they'll tell me exactly what we've done revenue wise.

Sure. Right. But then I also give me projections for the rest of month. Yeah. And it basically tells me the predictive. It tells you, you know, based off of pattern in the last 15 days for that next 15 day, if you continue this pattern, this is probably where you're going to be at.

And sometimes I look at the numbers like, oh, no, that's not what we're going to be at. We're gonna do better. You know, and I got to go out there, motivate the staff and do what a leader does best.

Right. Yeah. So is that something that I'm not sure if you guys currently have it or you see in the future? that based off of the current data of, of of person, it can actually show them a prediction of like, hey, if you continue going this route, this is what's possibly going to happen down the line.

You might want to start stepping it up a bit, working out, meditating or whatever it is. Yeah, I think what's most exciting there is the fact that we are now able to generate data continuously and passively.

Passively meaning you don't have to do anything. You just wear the device. Right. And there's these signals coming in every single day, sometimes every minute.

So that's another really good use case for machine learning artificial intelligence is to say, hey, Sam, we've got enough data on you to know that you're trending in a specific direction, and this is where you are going to end up, metabolically, for example, if you don't start working on movement and getting more physically active and reducing your glucose levels, so that's another benefit of the sensor technology is we get more data points to make these predictions.

The other really exciting thing about AI is the ability to capture more subjective data from an individual that can make the predictive analytics even better.

So, for example, making it easier just to get information on what you're eating. You know, just being able to snap a picture of a meal and have it analyze what's on the plate, or maybe even just voice logging and being to get that data in the system.

Or maybe pinging you on a periodic basis. Sam, how are you feeling, one to five? The more data points we can get, the better the predictive analytics will get.

Yeah, you might not actually have to run any control studies anymore, man. You might be able to just do it off the platform. Well, especially if we have a lot of historical baseline data on an individual, we actually do a lots of studies on heads up today.

We have companies that come to us with a product or service. So we're doing one right now for a very specific type

of sleep supplement that's designed to improve sleep.

And what they did was they said, can you get us 100 people on your system that have aura rings already and already have at least 90 days of baseline data?

on the ring and we want to send our product to a hundred people. And obviously they opt in and then we wanna know what was the improvement in their aura numbers when they took our products compared to their baseline.

So we can start to do a lot of really, really good product validation that helps these companies prove to the market that it works. Think about that before you had rings where you're gonna bring a 100 people into a sleep lab.

and put all the electrodes on them to capture data on sleep. We can do this stuff easy and fast and cheap and like a tenth of the price that it would take to do a clinical trial.

## AI, Predictive Analytics, and Product Validation

Right, right. Now, Dave, one thing that you said earlier, and I want to put emphasis on this, you've said that they opt in, because there's always a few kind of crazy people out there that think that, the government and this, that are just going to go ahead and take all their data.

And, you know, the thing that we heard about the 23 of me, all that stuff. So you and I have had these conversations and you've reassured me and have showed me of how you guys protect people's privacy on this platform.

Mm hmm. I just want you to kind of touch on that. If there's anyone who's questioning it right now, they understand, how serious you, guys, do take it because I know that, but I want them to hear it from you.

Yeah. We are regulated. under the same laws that every health care company is regulated in the United States. The same law that hospitals are regulated under and we have to follow all of those same provisions.

When we go and work with large organizations like, for example, some of the large health systems, the security requirements that we have to go through before they'll even do business with us is millions of dollars of investment in proper security, in property audit logs, and penetration testing on the system, all the things we had to do to make sure that were working at the absolute highest level of security.

If we are gonna, for example, ask people to participate in a study, we obviously, give them the opportunity to opt in. People volunteer when they do our studies.

Most of the user data on our system is actually from the clinics on the system. And so the clinics are the ones that are, the only ones, that have access to your data on our system.

So let's say a longevity clinic signs up and they put a thousand people on the system, they're the one that has access that data. Now we can give them all the tools on top of the data, so now that longevity clinics has all our data analytics tools for their patients, They can start to build their own reports on top of the data So we're basically empowering these clinics and and they can crunch the date on on their members and their numbers only I like that.

I liked that Dave when it comes to When it come to health data, what are some misconceptions that people have out there? Oh That's a really good question Um with like health tracking and all that stuff Yeah.

Misconceptions. You know, that's a really, really good question, Sam. I would say, you know one misconception is that everyone's body necessarily is going to, respond the same way.

So let's take blood sugar as an example. Two people can eat a banana. And when you eat the banana, one person's blood Sugar goes up and one So I think everyone should be mindful that we all respond differently, health-wise.

That's dictated by our genetics, our culture, or lifestyle, how much muscle mass we have on the body. So you can't compare yourself to everyone else. I'd say that's the first thing.

Second thing would be that just because something worked for your friend doesn't mean it's gonna work for you. So again, let's just take a peptide, for example.

You know what I mean? It worked for this person and helped them manage a specific symptom or condition. There's no guarantee that that will work for the next person.

So, that's a misconception. I'd say not really a misconception, but there's lot of people who struggle to look at the numbers that are not what they want to see.

So there are certain aversions to the data, the experiments that didn't go right. I would encourage people to lean in when their numbers are moving in the wrong direction.

A tendency is to avoid that type of scenario or to maybe to stop tracking because you got a result you didn't like. Those are actually where the greatest lessons can be found is where you do something that doesn't work.

The third one is that you have to spend a lot of money. to optimize your health. I also don't believe that to be the case. Yeah. You know, some of the simplest biohacks in the world are completely free.

Going and spending time outdoors under the sun, right? Going for a run, spending times with people you love. or say no to things. Yeah, those are simple and free.

You don't need a sensor to look at what's coming out of your body. Sounds a little silly to say on camera, but what color is your urine? That's the simplest biofeedback to know if you're hydrating properly.

What does the stool look like that comes out? You know what I mean? That tells you if your digesting your food properly, you don't need a $300 wearable to tell you some of the most basic bio-feedbacks.

So I don' think it has to be complicated and I dont think has it to expensive. It certainly can be. And I love nerding out on all the expensive high-end stuff.

But it can be really simple and it could be affordable and really effective without spending a lot of money. Dave, you couldn't have answered that question any better.

People hear me talk all the time about how when it comes to your health, it cannot be cookie cutter. When you are talking about the banana, one person can eat it, the other one, when you have access to health data, this is what we call precision medicine.

Where it is personalized to the individual. bringing personalization to you based off of your wearables, based on your biomarkers going into this dashboard and you being able to see what works for you and what doesn't.

So that was a great way of how you answered it, man. I really want people to actually understand that and hear it now. You know, right now we live in this world that there's a lot of mental health issues.

Yeah. How are you is there any part of heads up that's integrating with any kind of technology or tools for mental health You know that that That's one that is near and dear to my heart because I have so much compassion for people that struggle with that with kind thing and And it's also oftentimes one of the more challenging ones to work on.

Because you're dealing with your own operating system. So you got to go in there and fix the software. And I think there's a lot of mental health that is driven by lifestyle and diet, like just the levels of depression I believe that are correlated with broken metabolism and sedentary behavior and not getting enough natural sunlight and exercise.

So that one, we can certainly start to pick up signals of mental health challenges. Those typically will manifest in the biomarker known as heart rate variability.

And we just did a whole webinar on this topic with a doctor who is an expert in heart-rate variability, and actually trauma, emotional trauma. Acute emotional stressors will show up in heart rate variability.

Also emotional stresses that may have happened to you many, many years ago. Sometimes even in those early formative years before you even have memories of it.

That shows up, in the heartrate variability number. So we may see a heart-rate-variability number that is significantly depressed and way below baseline.

And that would be an indicator for the medical team to say, okay, we've looked at all of the normal things that will be there. We need to start looking at the emotional or what I call the psychospiritual side of things.

So I think we're sadly in a time and space where a lot of mental health is a result of that are preventable and treatable. It does show up in the data from time to time.

I am encouraged by advancements in mental health applications in medicine. I'm encouraged by advancement in psychedelic therapy as a modality.

## Privacy, Misconceptions, and Mental Health Signals

So I think there's good things happening, but I there is a lot of people suffering and that's a big challenge. Few things that you mentioned before also like just going out getting sunlight things of that nature that I can definitely see those things enhancing Reducing anxiety reducing potential depression, you know, even a lot of nutrients that your body needs.

Yeah function Yeah, just you knew poor poor nutrient Nutrient low foods, right? Right, which doesn't even allow your to cope with some of these things.

Mm-hmm Now, now there are, you know, just the other day, actually, I had them on the podcast. They specialize in neurofeedback and also brain mapping.

Are you guys integrated with that at all as of yet? Not yet. I think if we find a good partner where we can start to pull in a data set that we could then start cross-reference with other data, that would be very exciting for us.

That would amazing. Getting more into mental health as a company is an area that have not necessarily been drawn into yet, but if there's an opportunity to have an impact there, that would obviously be very significant for us, but we haven't specifically gotten into a lot of that technology.

Right. Cool, man. So, what is the future going to bring here? Are you guys going have your own wearable one day? No, we don't want to be in that game.

You know what I mean? We know our lane and hardware is a totally different beast. Yeah, I can only imagine. I think for us, we see an opportunity. There needs to be one platform in the world that is completely vendor agnostic and we can just plug in anything.

And there's also a place for platforms that work with very specific hardware. So we want to be the Switzerland on the data. We need to pull in everything because every group we work with is running different diagnostics and measuring different things.

For us, we're excited about the ability to measure more things continuously and passively. They all give us more clues on that data We're excited about access to diagnostics coming to individuals more affordably, more people being able to get access a really, really good blood panel every year.

at an affordable price that they can pay cash for, for example. So more access to preventative diagnostic screenings, more ways to capture data passively.

People just don't really have to think about it. They just get a ping. when there's something to pay attention to. More intelligent software that can find more signals for you in the data that are gonna make you more smarter, more deadly, and more preventative.

So just continuing to see more of those patterns, I think, is where we would like to the industry go and society as a whole. I love it. Love it! So, Dave, I'm going to ask you, well, not ask, you I want to mention some names of biohackers and whatever comes to mind.

One word, only one word. You're going go ahead and just say it when I say the bio hackers name. Go. I may not recognize the name, but I'll do my best here, Sam.

OK. Gary Brekka. Is he with 10X? is kinda in, I'm not sure, but yeah, that guy. Yeah. So, we just did a conference with him not too long ago. The name is Escaping Me.

It was in Phoenix, Arizona. Drawing a blank on that one. Dave Asprey. Bulletproof. I like that. That does come to mind. Joe Dispenza. Mind Body. Peter Artia.

P02 Max. Ben Greenfield. Shredded. Brian Johnson. Dune it in pace. That algorithm that he's tracking, that's got him down to like, I don't know, less than half a year of aging for every calendar year.

So dune in it pace, the biological age test. The last one, Sam Tejada. My man. Yo, man, awesome. And that was good. That was. Good. I love that. Been doing that on the podcast recently.

So it's interesting what people say sometimes. Awesome. Dave, if there is one person out there, as we wrap up here, there's one. Person that really resonates with the message today, it being a clinician or just someone who wants to take control of their health.

What is. One thing that you can leave them off with. The one message that I would leave, leave. Them with, yeah. You know, I think at the end of the day, Sam, what really matters on this planet is love.

## Future of the Platform and Closing Takeaways

And I think if you can surround yourself with loving relationships and you learn to love yourself, that actually supersedes everything. So everything I do is just a means to the end to allow people to experience that.

Health is a mean to be the best version of ourself. And the ultimate goal of the human experience from all of people that I study that, I learned from that have achieved leaders in metaphysical and leadership and spirituality.

When you ask them, what's the point of all of it, right? What is the you know, it's to be able to experience that. And what I'm providing is a means to that end.

So I would say that that's the ultimate goal for me personally, professionally. It's what, I want to allow others to and when your health is thriving, you can show up and you love and can be loved.

I think that is really the main message I wanna leave people with. Amazing man, amazing. Dave, if people want to find you, how can they find? Yeah, the best way to reach me is at my work email.

Dave at heads of health dot com. You can find me on Instagram, Dave Krasinski. If you want. Talk to me more about how to use data in your life, in. Your business.

Reach out to us. Support heads up health.com. Amazing. Brother, it was a pleasure to have you here on the. It's been an honor. Yes, man, thank you. This is a message that was really needed for everybody.

Thank you, brother. Amazing. Guys, you heard Dave, he said love. You got to lead with love, You have to live with Love. you hear this guy, He loves what he does.

He's passionate about it. There's purpose behind what He has developed and continues to develop. You gotta love yourself. How are you gonna love your self if you're not taking care of yourself?

When you talk about your data, your health data that's part of loving yourself, you guys hear me say this all the time, it says it in the Bible, Your body's the temple of God.

You have to take care it, God lives within you. When we're talking about loving yourself, this is part it. Make sure you subscribe. Make you share this podcast.

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