FUTURUM PODCAST

Nancy Tahmo

In this podcast, **Nancy Tahmo**, an epidemiology PhD candidate at the **University of Toronto** in Canada, discusses the importance of involving communities in research and shares how a setback at the start of her career ended up pointing her in the right direction.

Break the podcast down:

00:57: Hello Nancy, welcome to the Futurum Careers podcast. How are you today?
Hi Joe, thank you so much for having me. I'm very well, thank you.

Good. I normally start these podcasts with three quickfire questions just to get to know you a little bit better as a person. So, the first question is, what's your favourite way to relax?
That is a good one. I would say music. I do enjoy different genres of music. So, if you see me dancing in my living room, that is me trying to relax!

Nice. Yeah, that sounds good. And the next question is, if you could have any superpower, what would it be?
It's a hard question. I would say bringing water. If I had a superpower that would just allow me to take water wherever water needs to be. Because I grew up in places where getting drinkable water was always a problem and I know water is the first thing that people need to take showers, to cook, to be healthy. So, yeah, if I could bring water wherever in the world, that would be my choice.

Cool. And the next question is, if you could be any animal, what animal would you be and why?
This is an easier one because I would choose to be a chicken!

A chicken?
Yes! Somebody I love calls me 'Chicken' and I love the name. I think chickens are nourishing. They're also cute. You find a lot of memes online of chickens and I would love to be a chicken.

That is a great answer! I've never had 'chicken' before, that's good.

02:23: So, now we'll get into talking about your research and your career a bit more. So, you're a PhD candidate and you're working on a project that's aiming to create more accurate mathematical models of HIV and improve the prevention of HIV, and you work closely with the communities that are affected by that. Could you maybe give a little bit of a brief background for our listeners who maybe don't know, just a little bit more about that project in particular? Maybe even starting with what HIV is, and for this project, how it all works.
Yes. So, HIV is a viral infection. It's one that gets passed on through body fluids. So, blood or fluids that are exchanged during sexual relationships. HIV is one of those that causes people's immune systems to deteriorate over time if they don't get the proper treatment. That means that it sets people up to other diseases that are opportunistic, for example tuberculosis.

So, what our research tries to do, the genesis of it is, communities that have been serving sexual minorities in Kenya approached our research team. They approached them with the objective of helping communities learn the quantitative skills that can help them better impact mathematical models of HIV so that their voices are heard in what output comes from those models to influence HIV interventions specific to these sexual minority communities within Kenya.

03:52: Can you tell me why it's so important for the communities to be involved in that research?
Yeah, that is a very good question because in general research that uses very complex methods, like mathematical models, what we do is we try to understand complex systems and from there make some kind of recommendations for interventions. I think it's important to have communities that are part of that design process because of course their input in terms of what is going on on the ground is important, but also when communities are involved, it allows us to democratise how knowledge is created because whatever knowledge we generate from our research is what influences future interventions. So, if we have an equitable way of generating knowledge by having more than just the researchers that are involved in that process, we believe that this helps us attain research outputs that are more relevant to the populations that we serve.

And a final note on that is just having communities involved in this process also allows them to teach us about things that we don't know. Because as researchers, we do have our biases, we do have things that we know. Communities help us confirm those things but also restructure the things that we have gotten wrong in the past. So overall, communities help us to learn but also to make our research relevant.

05:17: Great. And so now, I'd like to talk a little bit about your career journey and how you've ended up in this area. You said in the Futurum brochure that you originally wanted to be a doctor, but you failed the entrance exam. How did that feel at the time? And then how did that setback end up with you doing this kind of research?
I was heartbroken because I think growing up in Cameroon, I only had

an idea of a few possible science-related fields. So, doing medicine felt like the ultimate thing that I would do. And despite being heartbroken, I did come across someone who worked in public health. And through that connection, I learnt a little bit about other fields of interest. And that's how I got into public health, but specifically epidemiology, because I did have an interest, yes, in helping people in terms of their health and well-being, but I enjoy working with numbers. And epidemiology allows me to have those two things. So, that context of the data, but then using the data to answer questions that have direct impact on how community health is improved within different spaces. So, I'm very much happy with the choice I've made and I'm looking forward to where my journey unfolds from here.

06:39: That's good. Was it hard to pick yourself back up after that? How did you manage to get over that setback?
Yes, it was quite challenging just because, like I said, initially I didn't know what other options I had. So, the first thing I could do based on advice from family and friends was to register at the undergraduate programme in biochemistry, which was the closest thing I had to medicine in some sense. But then upon graduation, I heard about the Fulbright Scholarship Program, which is offered by the US Department of State, and I applied. I applied on the basis of I want to learn about infectious diseases. So, with that full funding, I got transferred to a new university in Nebraska, the University of Nebraska Medical Center, where I honed that skill a little bit more around understanding diseases and how we can design studies and understand how infection is spreading, but what can we do to address those infections?

So, it didn't feel like I lost something. I would say I felt like everything worked out because if I was doing a medical degree, I probably wouldn't have been eligible to apply for this scholarship that allowed me to be in the US and now I am in Canada. So, it's been a blessing I would say.

08:00: Yeah, it's interesting how sometimes something that can be so heartbreaking at one moment can then actually be the thing that sets you off on the right direction and you just don't realise it at the time. You mentioned moving from Cameroon, what was that like? Was that quite a big jump for you?
Yes, definitely a big jump! So, Cameroon is just 28 million people overall, and I just come from the capital city. I would say it's very different from the [US] Midwest. So, in the Midwest, people know the Midwest for corn, but also just the demographic diversity, it's predominantly white-leaning. I would say it's more diverse today, but moving from Cameroon, where it's mostly Black and African-born, same culture. Obviously, some little differences to a place where the food is different, the people are different, and how you even approach life is different. But overall, it was a good experience.

Since I moved there on a Fulbright scholarship, I had a community of fellow Fulbrighters who come from all over the world. So adapting was a lot easier, and I did find community also through my church. So, overall, it was easier later on. The first few months were hard because I got there in the middle of winter. And I do enjoy doing a lot of things. So, I'm always outside doing something that allows me to meet people. So, I tend to build new networks and communities wherever I go.

09:41: Yeah, you've mentioned 'community' a couple of times, and you mentioned about your friends and family helping you find the scholarship and stuff. So, is that quite a central part of, I guess, your character and the way you approach life, community and leaning on other people when you need them?
Yes, absolutely. And I do always encourage people to find those spaces where people know them, where you can feel comfortable, because I have tried to move between different communities. I think some communities are more accepting than others for different reasons. But yes, finding people who know where you're going, finding people who know who you are, kind of helps make it a little lighter to face different challenges in the world.

10:26: Yeah, definitely. And you said in the Futurum brochure as well, that the idea of helping people has been something that's always been something for you. So, I wondered, can you tell what inspired that feeling in the first place? Where does that feeling of wanting to help people come from?
That is a philosophy that I hold very dearly. And nothing has proved me wrong that helping is the way that the world gets better. So, I lost one of my parents super, super early in my life. So, we had to deal with a lot of changes and a lot of support because I went through really expensive schools, I would say relatively, not because a family alone could keep up with all the expenses, but because of other people who would say, "Oh, I will set up this scholarship for my school," because they want to give back to a place that helped fund them. That kind of money supported me and a lot of other students who went through these different systems.

But also, within community spaces, people would lend a hand to a single parent in different ways, whether it's looking after kids or whatever that may be. So, I've always seen the impact of not just my direct family, but of other people far or near, people who knew me or not, whose desire to give back has supported me in my journey. And I hold that principle very dearly. And I've tried to do that in my lifetime. And I hope to continue doing that in different spaces.

12:00: Yeah. Is that something that you feel you can do through your research as well?
Yes. This is why I got into community-based research because I believe science, as much as it is exciting for us or for anybody who just does some form of research, it has to be grounded in what truly matters to somebody. If it's not contributing to the public good, I don't think it's worth pursuing. In some way or form, it should contribute to a bigger picture, whether it's developing or designing new medicines or contributing to understanding disease and designing interventions. Everything that we do I think needs to contribute to something more than just the curiosity or the interest that we have. So, that has very much informed my choice of research groups or research studies or whatever I'm doing in school currently and what I aim to do from here.

12:56: You mentioned earlier that you found community in a church, and I was just wondering how your church and your religion interplays with your science and your research and what the relationship is, if there is one between those two parts of your life?
That is a good question, because I know many researchers do not fall in that line. But I think research in so many ways is, it's like a job where you work with people who are different, whether they study different things or they come from very different backgrounds. And it comes down to the fundamentals of interacting with other human beings, so that they feel engaged and they feel like they are valued.

So, I would say religion plays a part for me in that sense, that I view

other people through that lens of, “I’m not better than others.” We are all here and we are flawed in so many ways. And we’re here to grow, we’re here to support each other, and we can be more forgiving, we can be more compassionate. So, it helps me better understand where people are coming from, and be more patient, I would say. Because we work with people in different spaces, people who have different timelines. And yeah, so it just builds that understanding.

14:12: **Great. Yeah, that feels like it’s a good ideal to have to guide you through your research career. Do you have any advice for young people who are maybe just starting out on their careers in epidemiology or in science in general? Do you have any advice that they could take on board to help them navigate those first steps?**
I would say one is, don’t stop being curious. I think many times we can get fixed in where we see ourselves, but the world is changing too fast. So, it’s important to stay curious and ask questions. And the second one would be just working hard is important. I think as much as the world shows us different things, it’s still important to put in the work to learn about ourselves, put in the work to learn about what we are studying.

And then the last one is to build resilience or creating the space around you to nurture that person that you are. Because we live in such a volatile time for people around the world. And I think resilient systems that we believe in ourselves, we have people around us, that will support us in what we’re doing, really helps us to weather the storms. When things don’t go the way they’re meant to be or supposed to be, it’s easier to bounce back. I think when we have a core belief in who we are and what we can achieve and what we can do, despite any setbacks around us. So, yeah, just those three things I would say for students who are starting out.

Great. Well, thank you so much, Nancy. It’s been really great chatting to you. Yeah, thank you for being on the podcast.

Thank you, Joe. I appreciate it.