

DD: Can you describe yourself in three words?

NW: No, I probably can't. [laughs] That's such a difficult question. I'm a different person to different people. I am single-minded. I think climate change is the biggest threat facing the world and I'd like to go and do something about that. I am stubborn. You are not going to convince me otherwise, and you are not going to convince me we should be focusing on something else. And I am energised. How's that? There's a lot of bad going on in the world but there are a lot of people doing some really impressive, really exciting things. I'm Australian – that's my fourth word. [laughs]

DD: Hi everyone. Welcome to the Global Health Lives podcast. I am Delan Devakumar, and today I am with Dr Nick Watts, a climate change academic and leader. Nick is a medical doctor from Australia, who has been working in public health, and specifically climate change. He's led the Lancet Commission on Climate Change, and Lancet Countdown, and now he is the Chief Sustainability Officer in the NHS. Nick, fantastic to have you on the podcast.

NW: Delan, thanks for having me. It's good to see you again.

DD: So initially when you started medical school you wanted to be a neurosurgeon but very quickly that changed to public health, and then to climate change specifically. For me that path was much slower, over many years. But what led you to this revelation that public health was your path?

NW: Yes, and maybe my re-telling of it makes it sound cleaner than it was, right? I was very young.

DD: That's always the case, I think.

NW: Yes, exactly. I'm sure my clinical supervisors in medical school would say otherwise but my re-telling, I wanted to be a doctor because I wanted to help. Medicine seemed like a good way to do it because you can be sure, you can be certain, that you were doing good. The patient would walk out the door healthier and they would thank you and you would pat yourself on the back. I got into medical school, studied very, very hard to get there. Two early things. I think my second lecture, Professor Helena Iredell was a public health professor who started talking about these radical concepts that she had just come across or the Medical Committee

had just come across of the social determines of health. The fact that stuff outside of the four walls of that neurosurgical operating theatre, right, which I desperately wanted to wander into might matter, which, looking back on it, the idea that that was novel is hilarious.

The other thing that I think probably really caught me early on, I went to a medical student conference, a global health conference. So if one thing opens your eyes beyond the four walls of an operating theatre, the next was the strange egg-shaped boundary of Australia, realising that there was a need for people that were able to engage in things beyond just political boundaries and beyond- I grew up in Perth - and so I think those are the sort of pivot moments. But really it then took, and do you know I'm still on that journey, over the course of years trying out, slowly dipping my toe in, moving further and further, saying, *Hey, this looks interesting.*

DD: So I'm interested that if this idea to help people, and when you worked clinically there's a very tangible result and contact. Whereas in public health you don't get that, or you are part of something that may change 10 years later. How do you cope with that now?

NW: Yes, and, "I want to help people," is a pretty naff thing to say, but for want of a better word. Someone once told me that it sounds a bit naff except for the people that understand it and then they go, *Yes, I'm can side with that.* But that's the trade-off, sorry, you assume that's the trade-off, right? It's direct and individual, or indirect and population scale, and so to some extent you need to have some good proper programme evaluation, you need metrics to say, *Hey, you are doing a good job, this is having an effect, there's impacts, there's outcome, there's output,* and that's all important. So you must always have that because you can't actually visualise a patient walking out of the emergency department, but I sometimes see underneath that question is a question of, *What motivates you? Why are you excited?* Right? And so, for me I guess the thing that I get excited about comes from the people I get to work with. So you get excited because you feel like you are doing something that is helpful, that is valuable, but you are doing it with some of the smartest people you could ever imagine, some of the most passionate people you could ever imagine. So I have almost replaced the motivation you might get from waving that patient out the emergency department door with the sort of enjoyment I get from the people I get to work with around me on some of these big, big issues.

DD: So you talked about growing up in Perth and the way you describe it, it seems like this idyllic place, and you were one of four children and you kind of bucked the family trend to become

a lawyer. Can you tell me a little bit about living in Perth, and what your family think about your career now?

NW: Yes, Perth's lovely. Everyone should go there and you spend two weeks, three weeks, it's a nice place to be during a pandemic. [Laughs] Community transmission is very low. It is isolated though. Perth is a long, long way away from the next biggest city, over a million people. Singapore is pretty much closer than Sidney to Perth but it's a lovely, lovely place to be. My father, my brother, my sisters, are all lawyers or training in law. I wasn't the black sheep. Everyone was very happy that I was moving into medicine, that was a solid profession.

I became the black sheep when they started to realise that maybe I wasn't going to take quite the standard route I said I might in high school. I wasn't quite as interested in neurosurgery, and that's kind of the exciting/problematic part of public health. Right? It is still emerging as a dedicated pathway. It's been around for a long time. I think the problem is it's such a broad concept, you know, *what the hell is public health*, sort of thing. So, in some ways, I think it is probably only very recently that they would say, "Oh yes, Nick, yes, he's finally got a real job," even though I might argue that I have had a real job for a little while.

DD: I mean, I come from a medical family and I think they don't really know what I do or understand what the difference is.

NW: Yes, yes. That's right.

DD: I should be seeing patients but I'm doing podcasts.

NW: Well, that's quite, quite a- The problem is almost worse, probably, for doctors. I just- All of my friends from medical school, all the people I used to work with clinically. This question of, *Oh, it's so great, someone should do public health. I don't know what it is, but someone should do it.* I definitely really felt that.

DD: So you went to medical school and you had this kind of amazing set of people who ran the medical school that just let you do things, and you worked in change management in the UK, you did an internship at the WHO, you did an MSc in politics, philosophy and economics, and to me that just shows the power of not having these rigid rules. So maybe you wouldn't

be here today or it might have taken you five or ten years longer. Can you reflect on your medical school time?

NW: It probably relates almost directly back to the conversation just before. I was lucky enough to meet a couple of people early on. I was at the University of Western Australia. Met a couple of people early on, Professor Roland Kaiser, who was one of the people in charge of student affairs, and a few other people like Helena that I've mentioned. I think I was somehow able to convince them that, "Listen, I want to work in public health. I want to work in some of these broader determinants across boundaries," you know, eventually that turned into climate change and health, sustainable development. And (they took) me seriously when I say, "I will go and pursue genuine opportunities to do this. I will go and pursue research opportunities, over in the United Kingdom, I will pursue internships with the World Health Organisation, I will pursue a Masters." I was really lucky because they did take me seriously. They turned around and said, "Okay, we will put a bit of trust in you and create some flexibilities," in an otherwise pretty rigid medical education programme, sitting exams at slightly different times to other students, being able to do more of the clinical time that you have to do. You have to do a lot of clinical time as a med student on the weekends, and I would do more- I would show up and do night shifts and things like that in a way that I think most med students probably didn't, but it freed me up to go and be able to create a bit of a career. There is something, I need to go and find both of them and tell them this, but there is something very, very special about that, I think.

DD: And then after medical school you started working clinically, doing your residency, and then you set up these two NGOs, both in environmental climate change, right?

NW: Yes, and again, when you look backwards on the thing, it's far cleaner and there is a nice little retro-fit in the story.

The reality is messy. The reality is I slowly started to do bits and pieces. I started to do things as a medical student, I started to slowly try to transition my time away from clinical work into more public health, more climate change and health. I benefitted I think from the fact that there wasn't an enormous amount happening on health and climate change at the time. Some really, really impressive people that have been there for two decades, really pushing things forward but you hadn't quite got to that ground-swell where you would say, *Oh, yes, that's a part of public health, climate change, the environment.* In some ways it's one of the classic

parts, right? Environmental health is one of the first reasons public health/population health existed but some of that got lost along the way.

So I benefitted from that fact that there was an open space. When someone said, "Hey, I think we need to all come together to collectively increase our bargaining power, our lobbying power, through the Global Climate and Health Alliance," there was a wealth of NGOs and medical societies who said, "Absolutely." And indeed the same in the United Kingdom, when we said to each of the royal colleges, College of Paediatrics and Child Health, Physicians, the Surgeons, the College of Nursing, "Climate change is important to your work." They said, "Yes, it is." And we were able to say, "Well come and join us in the UK Health Alliance on Climate Change." And they said, "Fantastic, because we need to start swinging some punches."

DD: And when was that? What kind of time are we talking about there?

NW: Somewhere between 2012 to 2015 maybe, not too long.

DD: Yes. So, then you came to the UK- Tell me how you got involved with the Lancet Climate Change and the Lancet Countdown.

NW: Yes. (I) Came to the United Kingdom, stumbled across the Godless College, across University College London. I had through my travels bumped into a few people like Richard Horton, the Editor of Lancet, Professor Hugh Montgomery, an intensive care physician up at The Whittington, and Professor Anthony Costello, at the Institute of Global Health. And stumbled from that Godless College into a room, a discussion with them, saying, "Hey, this is important. We should do more on this." But like we did in 2009 with the first Commission on Climate Change and Health, that talked about climate change as the biggest global health threat of the 21st Century, that's inadequate. We don't need people only talking about the problem. We know what the problem is. We have enough information and evidence to act. What we need to do is start talking about the solutions.

So we pulled together over the course of three/ four years a second Commission to do exactly that, to look at the policy responses to respond to climate change and then prioritise them according to the way a doctor, a nurse, a public health professional, would see and understand the world.

DD: And Lancet Countdown has really grown from there to this big kind of organisation really.

NW: Yes, that's the problem with success. You have to start repeating yourself. I remember- So we published- 2015 we published one of our first reports and in it, at the very, very back, it said something like, *we will back every year because we need to track and monitor progress, we need to know how the world is doing*. This is really important, and we had secured some funding from the Wellcome Trust, and we had secured the buy-in of all the politics, and everything you needed. We were celebrating that night the successful launch, we'd had videos of support from the Prince of Wales and meetings in the White House, and everyone felt very- You know, about themselves. Someone said to me, "Nick, I can't believe you said you were going to do this every year. You must have to start drafting your next one very soon." And I froze and I was, "Oh my, what have I done?" But we did.

DD: So, I think in migration we learnt from you that we said we'll come back but we didn't put a timeframe on it?

NW: Yes, it's an uncomfortable pace but that's what you need. You need to be uncomfortable with the pace, right? Climate change, you want to meet the Paris Agreement, you take seriously that 1.5 degrees as an important target, then you need to hit a 7.6% annualised reduction in emissions, year-on-year-on-year, five to ten years in a row. If you stop for two or three years, if you skip a beat and say, "Actually, we will do that in two years or three years," that turns to 15.4%. It compounds, and you cannot reduce emissions 15.4% per year. Covid has only managed to do it by about 8%. So there is this enormous sense of urgency that sometimes we forget, and I think there's something special about the dialogue that the countdown can produce that helps with a bit of that.

DD: Absolutely, and again I guess the urgency comes from outside in this issue, that it has to be done, and it has to be done by this time? I remember when you came to UCL and one thing that always impressed me was how you were dealing with so many difficult issues, contentious issues, disagreements between people you work with sometimes, and you just seem to manage it all so comfortably, and that's something I always wanted to learn from you. How do you do that?

NW: I'm glad it appears that way. I think- So certainly we manage a lot of disagreements. At the Countdown we had 60/70 academics working on this. World leading, big, big names, big

impressive people with impressive track records and professions behind them. We agreed on basically nothing. But that's what academics are paid to do in some way. I think the thing that we did really, really, well was that we valued the individual. We understood that actually we were on a little bit of a journey together. So the people that started this work with us, with the Commission back in 2011, 2012, are the people that are still working on the Countdown today, eight years later, and there's something really, really special in that, because you have the arguments, you have the disagreements, you get upset with each other, and then you get over it and you move forward, and you come to understand one another's languages, and the way that we think about the world and understand the world.

I think the one thing I've learnt above anything else is that relationships matter. Right? People matter and being able to work with people you want to work with, that are going to onside, and are going to, at least have a good-faith discussion is so important. We were lucky in the Countdown. I think that the biggest strength of the Lancet Countdown is the people, is the networks and the relationship and, for want of a terrible word but the sort of family it has built up around it.

DD: Absolutely. I mean, in terms of trying to bring together groups of people I work with, I look at that sort of emotional intelligence. How do people interact and how do they work with each other? That's more important than, I don't know, how smart someone is, maybe.

NW: Oh, totally. Especially, for the things that we are talking about like climate change or like migration. Not the simple issues. The big issues. The big complex issues that cross political, cultural, linguistic boundaries, cross disciplinary boundaries, what you need is people that are going to be able to understand and work with each other. You don't need the brightest, brightest, brightest of minds, people that are going to sit on the edge of that new frontier in science as it progresses.

DD: So on the kind of similar themes, the climate changes become hugely politicised, especially in the US kind of Republican/Democrat debates, and a conversation that I have had with myself many times, mostly around migration is, how do we bridge that divide? How do we speak to those people on the different sides?

NW: Yes, it's tough. The worst thing you can do, as we have seen in both migration and climate change, is politicise and polarise an issue. Right? It's so unhelpful and it can sometimes be

seductive because you're on one side of that polarisation and it feels good when everyone in your echo chamber or your Twitter feed is agreeing with you, but you're not helping. I often crudely joke that one of the problems that climate change has had is that for too long it has been about polar bears, and it has been about 2100, and it has been about a country that no one could possibly care about like New Zealand, right? A long, long way away. [Laughs]

DD: We apologise to our listeners in New Zealand.

NW: Yes, of course. [Laughs] No, no, you are right. The thing that you need to do is bridge that space, bridge that temporal gap, make this feel more immediate, more personal, more urgent, and so you do that by going to where people are. People care about their local community, they care about their small business, they care about their faiths, and they care about their health. And so the idea here is if we can start to understand climate change as not just an issue that affects polar bears, because it absolutely does. But an issue that affects children with asthma, and not only affects New Zealanders in 2100, because it absolutely does, but also affects all of us. No country, no population is immune, and we are being affected today. I think that's how you start to break down some of that.

Health isn't always, but if you do it right, health is a pretty non-partisan issue. It should be something we can all get behind because we understand intuitively what that child with asthma looks like. We don't understand intuitively what a part per million of CO² equivalent looks like.

DD: I completely agree. In my PhD I worked a little on air pollution, indoor air pollution actually, and I remember at the end, you know I had these- It was a quantitative project measuring air pollution levels estimating personal exposure, and a participant asked me what were the results? And I could give a number but it was meaningless. It's high, the concentration is very high.

NW: Yes.

DD: But linking it back to them, their lives, what they were experiencing- So these were mothers cooking on open fires, using biomass and wood and so on.

NW: The leading cause of mortality for under-fives from pneumonia, household air pollution. Is that right?

DD: It doubles the risk of childhood pneumonia.

NW: Yes, it's insane. Yes, that's the thing we can get. Right? That's what we understand.

DD: So now you have this new job in the NHS, and soon after you started, you announced the net zero NHS pledge and now I remember reading this and just being surprised and impressed, and thinking, *Wow! Can we do that?*

NW: The NHS is a system of 1.3 million passionate, intelligent people, who in some way, shape or form, have taken some version of a Hippocratic oath. *First, I'm going to do no harm, and hey, I'm going to look after my patients and look out for people.* We know that 98% of NHS staff would like to see the NHS work more sustainably, and we think that they are going to help us with this. So to your question of, *can we do this?* Yes, 1.3 million people could do this. 1.3 million people could absolutely design the future of healthcare and the NHS has been a part of a long, long proud history of firsts. Right?

The first universal healthcare system, universal coverage, the first hip replacement, the first IVF treatment, the first mass vaccination programme, the first Covid vaccine only a little while ago, and the world's first healthcare system to commit to net zero carbon by 2040 for the stuff we control, and by 2045 for the entire scope, all of the things we could be responsible for. So I would say if anyone can do it, the NHS can do it, and whether we are right or not is kind of the fun thing that we get to find out, but everything I have seen so far since I joined the NHS is that it is going to give it a really good crack. That there is passion, there is enthusiasm, people-

I got off a call with a few regional directors a couple of hours ago. The question wasn't, "Nick, we are so busy with Covid, please, please can we deal with this later?" The question was, "These things have to be dealt with together, we must deal with climate change and the response to covid at the same time. How can we move faster? How can you and I work together to move faster and faster? We need to be bolder." So, yes, it is a pretty ambitious commitment but it has been a lot of fun since I joined. I've only joined a couple of months ago.

DD: I mean, that's fantastic to have that political buy-in to start with and, you know, to be pushing you to go faster rather than having to convince people.

NW: Yes, it's changed, hey? And so, what I should say is the NHS has done this for a while. 2008, the Climate Change Act comes along in the United Kingdom. It says we are going to reduce emissions by a fair amount. The NHS in response sets up, in 2009, a sustainable development unit. They spent the better part of a decade slowly going around the system, quickly going around the system, convincing people, just planting the seed in the back of your mind, saying, "Hey, this is possible, and this might be good, you might improve air quality, you might improve diets and patients' experience of healthcare, you might increase accessibility as you move to more digital care."

Creating the conditions for the moment when the question gets posed, "Well, couldn't we really take this seriously and become that world's first healthcare system?" The answer was "Yes, let's do that. That sounds great, that sounds like not a climate changing health programme, but like a programme to define the future of healthcare," and that's something that absolutely the NHS should be doing.

DD: And how do you see this moving forward? So, hand-in-hand with Covid, and what other things that we should look out for in the near future, at least?

NW: Yes, so we have to be sensitive. This system is under pressure. This system is behaving admirably. Yours and my friends, the nurses, the physiotherapists, the healthcare workers across the system, in response to this crisis. There's no point coming up with impressive adjectives because they are all inadequate and yet we need to understand that the same drivers of inequality in the mortality from Covid are very, very similar. Air pollution is something we talk about, very, very similar to the same drivers of climate change.

We can't respond to one crisis whilst making another worse, we can't lose this opportunity to shift these discussions. So it has to, it necessarily has to work together those two issues. I think the most important piece will be making sure that, like I said, it is not one person, it is 1.3 million. So the most important piece is – We have a new greener NHS team. It's exciting, it's big, it's energised, but it's not going to be enough. We need people that are passionate and care about climate change in each of the regions across the NHS. We need them in the

medicines team and the procurement team, the ambulance team, the nursing team and the allied health professionals' team, at national level, down at the local level.

So that's what the next 12 months are about. They are about really using this opportunity as a bit of a launching pad to take us into the next 10 years.

DD: What about the people who are not so passionate? So I imagine there is the whole spectrum in the NHS, like anywhere else. How do you encourage, convince those people?

NW: Sure, so people have competing priorities. First you've got to start with a belief that everyone's fundamentally a good person, right? Everyone is interested in- If you work in the NHS, you are there because you care. Right? Now you don't have to care specifically about climate change. That's okay. You may have other pressures. You may have other priorities and things that you'd like to deal with, but I'm pretty sure we can all get on board with the idea of clean air. And I'm pretty sure we can all get on board with the idea of less fast food and more nutritious food, more fruit, more vegetables.

We can all get on board with the idea that we would like to live in a community that is safer, that has more green space, where kids can walk to school, where we can go for a run without problems with traffic or without poor air quality. We can all get on board with the idea that we would like the NHS to continue to be universally accessible. We need more digital care, we need to change the way that we deliver care, so that it's closer to home, so it's more personalised. And so to the extent that anyone can get on board with any one of those things, then I think we have business we can do together, right, because all of those things, all of those core fundamentals of being a good nurse, or being a good doctor, or being a good health professional, they are just core to the response to climate change.

So I almost reject the premise of the question. I reckon every single one of the 1.3 million, and all the patients that the NHS serves, could get on board with one of those things.

DD: So outside of work, I love that your hobbies also involve working and that you are so passionate and devoted to the topic.

NW: Yes, it's always an awkward conversation when someone says, "What do you do outside of work?" or, "What are your hobbies?" Because my response is, "Oh, no, no, no, I learnt early

on that if you can be lucky enough to do something you love and want to do with a burning passion, you won't want to stop. I love the stuff I get to do. I wake up every morning, bound out of bed ready to take on the next day, and on Saturday, and on Sunday, it's such a joy, so much fun." You obviously need a few more parts to your life, otherwise you become pretty one-dimensional. Rugby. I follow the rugby pretty closely. Paradoxically, interested in Formula 1. Formula E is something that's really exciting and to the extent that we can start to pervade electric vehicles and put carbon solutions into popular culture. Lewis Hamilton is starting up a Formula E team next year. Wow, that's so, so cool. And then I probably would say I do the thing that obviously everyone does. I hang out with my friends. The difference is, I think where we started talking about- My friends are the people I work with because I get to work with some of the most exciting, passionate, inspired, intelligent people I know and so it's just- It's nice to be able to have both that personal and that professional connection at the same time. It just makes everything so much easier.

DD: I remember something you said to me that what we do is a privilege and that's something I've said before, that to be able to do this kind of job, and to be paid for this is a privilege. It's not something that most people can do. I don't wake up and bound out of bed. I find it very difficult to wake up every morning. But, it's true. I'm happy to carry on doing it and not go to sleep.

NW: I suspect, and we should never tell your employer this on a public podcast, but you would do what you are doing for free. Right? I would do this for free if I could. I love it.

DD: Fantastic, Nick. Thank you so much for joining me today. It's wonderful to hear about your life and your work and your plans for the future, taking forward. It feels like the medical profession and humans generally have just been sleepwalking into this, what is an existential crisis, and it is such a privilege to speak to someone who has been working so hard to wake us up from this. Thank you.

NW: Thank you, Delan.

DD: Thank you to my guest, Nick Watts. The episode was produced by Amaran Uthayakumar-Cumarasamy and myself, with artwork by Beth Stinchcombe and our theme song is *Paper Stars* by Liam Aidan. This is a Global Health Live Podcast. Thank you for listening.

