

DD: Describe yourself in three words.

DO: I think I'm curious, funny and stocky.

DD: I asked my eight-year-old son to describe me and he said, "Funny, a bit serious and sleepy."

DD: Hi everyone, welcome to Global Health Lives, I'm Delan Devakumar and today I'm joined by Professor David Osrin who is a Professor of Global Health at UCL and a Wellcome Trust senior research fellow. David is a world leading researcher who has run many large community-based trials in South Asia on topics like newborn mortality, child nutrition and violence against women and girls. Dave, thank you for joining me today.

DO: Thanks a lot, hello Delan.

DD: When I first thought about doing this podcast I thought about interviewing you but this is probably the one that I thought would be the hardest. And I should start by saying that you were my PhD supervisor and, actually, still my boss, and I remember reading your work, particularly your early work with Professor Anthony Costello and thinking that you'd be a good person to work with. And through Anthony I've met you and you were very welcoming and then I continued to hassle you until you agreed to be my supervisor. The difficulty in doing this podcast, though, is that you've worked on many different topics and that makes covering everything very difficult, can I start by asking about your current work on violence against women and girls? Can you talk a little bit about what drew you to this work?

DO: I've been thinking about this and I don't invent things or think of things, I respond to things. And I suppose the strongest example is the work that I try to help with on prevention of violence against women and girls because, basically, the people I work with are extraordinary and they have shown me how important this work is. So, my job, then, is to help them, to think of zingy ways to evaluate what they do so that they can have the most impact. So, I was already living and working in Mumbai with an organisation called SNEHA I became aware of the work done by Dr Nayreen Daruwalla and her team. And I was compelled by the seriousness, the awfulness, of the global situation and, indeed, its importance as a global public health issue became immediately obvious to me. And I was, in a sense, magnetised by the bravery of the people that were trying to do something about it. So, it was a bit of a no-brainer that I get involved in the research and evaluation side.

DD: Tell me a bit about the problem.

DO: Well, it's extraordinarily common. The stat that gets banded about is around a third of women in the world will face violence during their lifetime, but the thing is that that is physical and sexual violence and what the group I worked with are particularly interested in is other sorts of violence that are possibly even more common. And those include emotional violence against women, neglect of women, coercive control, economic abuse. We reckon that in the groups that we work with, in poorer areas of the city of Mumbai, something like 70 or 80% of women will experience these awful things in their lifetime.

DD: I remember hearing about the stats and it was probably you who told me about them initially, and just being really shocked and shocked that I didn't know and shocked that this isn't the first thing we learn at university. And it's one of the reasons I wanted to do this podcast was to talk about these issues. Something that ties your work together is that you've been evaluating these complex interventions, what should we do to first reduce violence in the first place, but also to help survivors?

DO: That's the million-dollar question. And I guess falling back on theory, the way people have tended to conceptualise it came from some work done by Lori Heise who was at the London School of Hygiene and Tropical Medicine and so how we think of it is in a so-called socio-ecologic model. What that means is, at the centre of a series of concentric circles is the person, the woman, around her is her relationships, around that is something like her household, then her neighbourhood, then her region, then the broader society. How we tend to conceptualise it is in terms of interventions at those various different levels.

And so, the big question that people ask is, if you had the money where would you intervene? And some people think that we should change society, we should change social and gender norms. How we would do that is, again, a subject of some considerable debate. Do we do this through the media? Do we do this by engaging with men, who are the commonest perpetrators of this kind of violence against women? Should we work with health services so that doctors, nurses, paramedical practitioners can identify survivors of violence? Perhaps do information sharing about it. Do we work at the level of communities? And then, finally, and for us a difficult one, is working with individuals because, obviously, any survivor of violence must have access to the best possible services that she can go to.

The debate is an artificial one and it's about, do we work with survivors of violence or perpetrators of violence or both? And the answer, after this long introduction, is that we should work at all those levels. And I think that's right because in advertising and marketing, the mantra that I've heard is always, do everything. So, apportioning funds is a difficult question but there seems no doubt that we should provide interventions in society at all those different social, ecologic levels.

DD: And tell me about your particular trial, what you're working on.

DO: The trial that Nayreen Daruwalla is leading in informal settlements or slums in Mumbai is operating at that community and individual level. So, it's a big cluster, randomised control trial of community interventions to prevent violence. And the interventions are two things, one of them is awareness, discussion, participatory learning and action and the other is identifying and supporting survivors of violence. And we actually see these two things as a feedback loop because it's our feeling that if a woman is seen to have been helped successfully other people will come to know about it. And, indeed, if survivors of violence are identified, although confidentiality is clearly a crucial issue, it does become manifest to people that this problem is happening, is common and that something can be done about it.

DD: So, in this you're going to these multiple levels, the work sort of hits a few of these levels?

DO: Yes, I think that's right. I mean we're certainly working with individuals because we feel that it is our ethical and moral mandate to do that, but we're also working around community mobilisation and animation so the community mobilisation activity centre on the legacy on some of our other work and also the development of specific cadres of individual volunteers who know about violence against women and girls, are able to talk to people about their rights in the situation. But also identify and help survivors of violence. And, incidentally, that does involve other work that we do with the police in terms of negotiating with the police and also training the police in the response to violence against women.

DD: Thank you. So, going back to your early life, you were born in South Africa, you moved to the UK when you were young, your childhood was really one centred round the arts. Your parents were interested in the arts, your mother, in particular, was a sculptor and you were good at arts and languages at school, how did you end up doing medicine and science?

DO: Well, that's a really funny question and maybe some of the listeners can relate to this, but I think I ended up doing sciences rather than arts primarily because I was a zero-generation immigrant and that's because, you know, everyone's child should be a doctor. And I think this experience is a collective one. So, I ended up being a doctor because I received counsel from family and friends that, you know, you would always have a job if you did science, you could change from science to arts etc, etc. And then I ended up doing these science subjects that I didn't have a natural aptitude for and then doing medicine.

And I tend to, I suppose, respond to challenges to myself, I'm very competitive with myself, so I ended up doing medicine because it was hard and I've ended up studying it at a place that was really hard to get into. And all of this was some kind of inner tussle with my natural inclinations, which I suppose, you know, characterises who I am.

So, it's true, I love the arts and my natural aptitudes are in terms of the arts. So, literature and visual arts as well. And if I had followed my inclinations I certainly wouldn't be doing what I do now and, indeed my whole career, if you can call it that, has been a sort of trajectory like gravity's rainbow, where I ended up trying to get back to doing the arts within the sciences, which is what I was in. So, the most difficult period for me was kind of the middle years, when I was being a doctor, and then I ended up being "an academic," I was able to come back my natural bent, which is arts and humanities.

DD: I was never an artist but I remember having the same conversation about how I could change from medicine to something else if I wanted to, later. So, then, moving onto your clinical work, you started working as a doctor and during your early clinical years you described it to me as physically and emotionally bruising, but then you moved into paediatrics doing a number of general paediatric jobs, specialist jobs in London, and you talked about being satisfied with the work rather than liking it. And I remember my own experience of doing paediatrics for me as well, and just not being able to disconnect, it was always part of me, I was always thinking about what I'd done that day or previous days, thinking about patients. How did you cope with clinical work? What was it like for you?

DO: I think I had a fairly similar experience to you. It's hard to say whether I liked it, I think it was rewarding, incredibly rewarding. One of the things about paediatrics is that quite often people recover or are saved by the work of paediatric teams and, you know, there are lots of acute and very serious illnesses that rapidly can be helped. I think, also, you get a great deal of

reward from the relationships that you make with your patients and their families and there's no doubt about that. But I did find it punishing because I couldn't ever switch off and I did worry about people day and night and I think, in that field, at any one time there's always one or two kids that you're really, really worried about. And also, I was really affected by individual patients, so there are kids who are now adults, some of them are not with us anymore, I can still recall every one of their names, and this is 30 years ago, so there's a great deal of emotional investment.

DD: Yes, the thing you said about children getting better, it's something very special about paediatrics in general, you can do something relatively small, fluids or something like that, and suddenly you see this improvement and that's magical. You rarely get that kind of effect, but equally I didn't register most of that, it was always the things that were difficult or didn't work or went wrong and those are the things that always stuck with me.

DO: I think that's the nature of people. I mean one of the things I always think about is that if somebody comes into an emergency department having an asthma attack, and you say, "Let's bung on a nebuliser," some of the time you're actually saving their life and that's extraordinary, and it's a feat of medical practice. But I don't think that you register that at the time, and as you say, you tend to dwell on the people who turned out to have leukaemia that you didn't realise. I think that's who we are.

DD: So, from there you worked as a doctor in rural Australia, you worked with Aboriginal communities, tell me about what you did there and how you were accepted there as an outsider, in many ways.

DO: Yes, I was doing my higher paediatric training in Western Australia, based at Princess Margaret's Hospital, I was sent to an area called The Pilbara which is, they say, roughly the size of France, and was effectively the paediatrician for that area. What that meant was being at the base hospital in Port Hedland but doing outreach clinic, so there was quite a lot of emergency, stabilising and airlifting and that was one of the most extraordinary and lucky periods in my life. It was so interesting and also that level of responsibility, I found that very, very rewarding. Also, an interesting experience that I think GPs probably have, is being an important member of the community so that it is known that you are the paediatrician for the area and you are even being invited to civic functions.

It would be fair to say that almost every doctor who works in that area is, originally, an outsider and they may be an outsider because they come from another country, but they also might be an outsider because they come from another stratum of society. And there is a historical issue of justifiable lack of trust and I think that if I was a person living in Warralong Community and a paediatrician turned up, I wouldn't trust them until I felt that it was okay to do so, and what would drive my decision, I suppose, patience and persistence and respect must be in there somewhere.

DD: Yes, I agree, time and respect are just so important. So, you then did further training in clinical medicine in Thailand and then moved back to the UK to work in paediatrics again. And then a chance meeting with the aforementioned Tony Costello happened, who asked you if you wanted to go to Nepal next month. And I remember a similar story, myself, in that I was called into his office, actually where we're sitting, and he asked me if I wanted to go to Nepal to collect some air. But your work was much more impressive, setting up a trial of women's groups. And I remember, long before I met you, writing about this trial in an exam, it stood out so much, what you did and what you found. Can you describe the study?

DO: Yes, sure. I mean, one of the things that characterises my portfolio is that I'm a really rubbish planner. So, I came back to the UK from Australia via Thailand, sort of because I wanted to work in global health and I met Anthony and he said, "Do you want to go to Nepal next month?" And I said, "Where's that?" And I dropped off the scheme I was on and I had never been there for, I think it must have been, more than a year. I was simply trying to work with MIRA run by Professor Dharma Manandhar, which was the NGO that UCL was partnering with.

So, what then eventuated was the so-called Women's Group Trial. It came from a model developed in Bolivia with Aymara people by a team, and the friend who is in that team is Lisa Howard-Grabman, and they found that essentially working with indigenous women's groups could reduce neo-natal mortality, that's it. And our work, at that time, in Nepal, was focused around newborn survival. It was a small agenda that then, over the years, became a bigger agenda through the work of people like Joy Lawn who I know has been in another of your podcasts. And Anthony had the idea of doing a formal, randomised control trial of this women's groups, participatory intervention and kind of the rest is history.

DD: So, can you tell us what you did?

DO: So, in an individual, randomised controlled trial, like a Covid vaccine trial, you randomise by patients, or individuals, and one gets the thing you're testing and one doesn't, called the control group. And in a cluster, randomised control trial, you do it in groups of people. So, one village gets the thing you're doing and one village doesn't, or one school or something like that. And so we conceived the idea of doing this women's group intervention, which is essentially a collective thing and randomising at the level of the village, a certain number of villages were randomly allocated to getting this weird, messy, women's group intervention and an equal number of villages kind of didn't get it.

DD: What do they do in the women's groups?

DO: It's not traditional health education, so the idea is that people educate each other, I suppose, by discovering things that are important to them. I mean it probably has its roots in Latin American liberation theology and the work of people like Paulo Freire where you hope to conscientize people by getting them to analyse things that are important to them. So, the women's groups met approximately monthly and they went through something called an action research cycle and so the groups, basically, explore the issues around having a baby and mothers and babies getting ill. And then, the way MIRA did it was to get them to choose one or two areas to prioritise and then come up with strategies to improve it, in their own village, and then to do those strategies. And then the circle is supposed to close where you evaluate what you've done and you go back to the beginning again and adapt it, in my experience that happens a bit less.

DD: So, this is a huge, very heterogeneous trial, people doing different things in different places. It isn't the kind of clean cut, drug trial that someone might imagine. What did you find? What was the result?

DO: So, much to my surprise, in the areas where they were doing these women's groups, the survival of newborn babies was substantially better. And, in fact, we also found another interesting thing that it might have also improved women's, mother's illness and possibly survival as well. So, this was miraculous, all the community activists in the history of the world would tell us that it was entirely expected, but unfortunately, you know, these kinds of things are not usually part of the agenda of public health anywhere in the world.

DD: Where is women's groups and this kind of work on the global agenda, these kinds of interventions are not very common, is it an issue that it isn't prioritised? Is it an issue that isn't funded? What's going on here?

DO: That's a really hard question. So, where it is, there is a WHO guideline and I think that everyone would say that you should do this kind of community participation in your health programme, but its manifestation is limited. Why is that? I think it's a bit messy, I think it doesn't feel like traditional public health. I think it's quite hard to do. And I suppose another thing is that maybe, maybe, people still don't really believe it. One of the things I've learned about trials is I thought that if you did one, and it showed something worked, that would be it. And that's not the case. What I found is, you might need replication and adaptation trials in lots of other places until the balance of evidence is enough.

DD: I think conceptually it's hard, isn't it? It's not the vaccine, something that you can see that is effective, you don't quite know what happens, maybe, is that part of the issue, that for someone giving out the money, deciding on the policies, they're losing control, to a certain extent.

DO: Yes, I think that's absolutely right. I mean what you're saying is, and the reason that you can actually do evaluations is because you say, "We're doing this one intervention." Now the intervention may be unbelievably complex and messy but you can still say that place got it and that place didn't get it, okay they all did it in a slightly different way, and I think that's all right. But the magic, the magic box, or the black box of how these things work is difficult. What's happened, I think, since then is that the, I'm going to call it a science, of evaluation has advanced so that now there are a lot of people all over the world thinking about theory-based evaluation and programme theories, or theories of change. So, I think that what's happened over the last 10, 15 years is people thinking about the methodology around these so-called trials of complex interventions and it not being good enough anymore.

DD: So, can we talk about the next trial that you did, which was very different in design and a little bit more like a standard individual trial? So, this was of micro-nutrients in pregnancy, also in Nepal, and this was where I came in and I met you following up the children born from this trial many years later. Can you tell me about the trial?

DO: At that time people were very interested in nutritional supplements and those may be so-called macro or micro-nutrients. So macro is more food, having some extra rice, micro-nutrients is vitamins, minerals etc. What we wanted to do was increase the weight of newborn babies to improve their survival, so we designed this project in southern Nepal, based in the town of Janakpur where babies were small to see if we could help them in terms of their survival and health.

DD: And that's their health immediately, as well as longer term, right?

DO: Yes, I mean I think your question is really good because the issue with this whole area, as you and me and others have noticed, is that the goalposts kept moving. Basically, the argument, and I'm going to over-simplify it, everyone was talking about this thing called low birth weight and what that means is weighing less than two and a half kilos when you're born. And if you think about it for just a short time you can imagine that there are lots of reasons that could be. You could be born very early, or pre-term, premature, or you could be kind of born at the right time but you could be thin or you could be symmetrically small. And what happened is that people tended to think that, well, we need to make them bigger because lots of the contribution to mortality of newborn babies was low birth weight babies. And so, the ideas of all of these supplements was that, you know, we make the babies bigger and more would survive.

The problem was, in our trial, and in quite a lot of other trials, we showed that taking these vitamins and minerals did make the babies bigger, but it didn't look like it made them survive more. And so people started saying, "Well, what about their blood pressure when they're 30?". And these are all important and valid things but there was, to me, there was a slight deviation from the original assumption. Now, that just shows that human beings are complex systems, I mean these things are putting your finger into the ocean of complexity. And I think it was maybe disingenuous of people to think that, you know, we could fix stuff like this. I'm not saying it's not a good idea, but it turns out to be way more complicated than people thought.

DD: So, then your career shifted, both physically and topic-wise to urban health in Mumbai. And the majority of the world now live in cities, the urban population has grown four times in the last 60 years and south Asia is home to many of these mega cities in the world, Mumbai

being one of them. When you went there you started working on community resource centres. Can you tell me what these are and what you found working on this?

DO: Yes, so when I moved to Mumbai in about 2004, I joined my friends at SNEHA which was founded and run by Dr Armida Fernandez who was followed by Vasundhara Joshi and now by Vanessa d'Souza, it's been a long time. And I was really struck by the urban situation in Mumbai, particularly, because SNEHA, the NGO, worked in informal settlements where so many people live. And so we became very involved in the emerging discussions of urban health. And we ended up testing a model which was, I always called them Community Advice Bureaus, because that's what they're called in the UK, but they are a little bit like that. So, they were a physical place so you could actually do things at them, you could have doctors coming to visit, you could help malnourished children, you could distribute family planning. You could organise links with immunisation campaigns, and even deliver immunisations. As well as doing the other kinds of work like community mobilisation, women's groups.

DD: And can you describe what the setting was like? I mean this is inner-city Mumbai, right?

DO: Yes, so the settings are the informal settlements that, and they are slums. The problem is that the word slum is pejorative and also they are very, very variable. But basically, they are a housing option for the urban poor and they are very, very dense, they may be located next to hazardous things, like railway lines or landfill or steep slopes. They tend to have disorganised, or unorganised, water, electricity and particularly sanitation.

The other dimension, and this is a kind of UN habitat vision of it, is to do with so-called insecurity of tenure. So, this is a political and personal issue which is because the places were settled informally, as shanties or unofficial development, people in them don't own the property, they don't own the land, they don't have any rights so they don't have tenure. And, indeed, many people think that's the most problematic thing because if I go to work in the morning and I know that when I come home from work in the evening I might have been chucked out. That's not a good way to live and it's very damaging to families, communities, physical and mental health.

Informal settlements in Mumbai have a long, long history of more than 100 years, they are centres of small industry, they have long connections to communities of origin, so people who have particular sets of skills, artisans like potters. And so, these places, and I've spent most

time in an area called Dharavi it's always a privilege to spend time in those places because, you know, they are extraordinarily vibrant communities and they're full of aspiration.

DD: Can we talk about your public engagement work in Dharavi in particular? And this seems like the culmination of everything you worked on through your career, so bringing together your interest and expertise in arts, with science and health. Can you talk about the Dharavi Biennale?

DO: Yes, the Dharavi Biennale was basically a big art festival that was about urban health. The idea was that people who live in a place like Dharavi, which at that time was said to be Asia's largest informal settlement, are very famous because every time you go to an international, urban health conference everyone goes on about it, books have been written about it. But we realised that the people who live in Dharavi don't know that, and that there was a whole discourse around urban health in which they weren't really involved.

And, at the same time, there was a trend in urbanism to validate the products of the inner city. So, you know, urban art, that was something in popular culture and, indeed, in the art world. So, we thought, why don't we get people from Dharavi to make art, but why don't we get the art to address urban health issues? How do you do that? Well, it's not easy, you could get artists who come from the place, you could bring artists in and you need to bring people who know about urban health. So, what we really tried to do is bring together all those different groups of people. So, we thought, well, why don't we break it up into millions of pieces, and we called those pieces Art Boxes and Nayreen Daruwalla led the project and we had an exciting team and we did all the things that I've said. So, some of them were visiting artists, some of them were people like sign painters or potters from Dharavi itself. Some of them were other kinds of people like designers who weren't fine artists, or dance, choreographers or we worked with a rap group called The SlumGods. And so we had so many different things and then we ended up having the exhibition, well it wasn't just an exhibition in a gallery, we had like four galleries and a walking tour and pop concert and workshops and all sorts of stuff over a long period. And it was just fantastic.

DD: So, thank you Dave, for joining me today, you've been a leading light in child health, women's health, and on a personal level a mentor and guide. One thing that always impressed me is that you're pretty good at everything and, as academics, we're asked to do many different things and most people can do some but not others but over the years I've

come to you with loads of different problems and issues, and you always know something about it, you have some competence in that issue. And it always made me feel inadequate, but then I realised that you're actually the unusual one, not me, thank you for joining me today.

DO: Well, thank you very much.

DD: Thank you to my guest, David Osrin. The episode was produced by Sruthi Mahadevan and myself, the theme song is Paper Stars by Liam Aiden. This is a Global Health Lives podcast, thank you for listening.