

Mile in My Shoes: Sinead's story

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Air pollution is easy to ignore because it is invisible. But it is there and there is so much evidence showing how serious the health effects of air pollution are. It can't really be ignored anymore.

I'm Dr Sinead Millwood. I am a GP in Levenshulme, South Manchester.

I like Levenshulme because it's such a mixture of people from different communities. A lot of the older people are from Ireland originally and there's, there's a lot of second generation Irish, and then there's the Pakistani community. We've also got a lot of young professionals in the area. We also look after a lot of students at the university cos we're quite close to Fallowfield which is where they all live. And we also look after a Home Office hotel which looks after migrants who have just come off the boats, and everyone does seem to get on quite well. The High Street is a real mix of kind of betting shops and takeaway places plus some independent shops, coffee shops, bakeries, sourdough bakeries for all the... young professionals. Manchester is – a great city [*laughs*]. A very accepting city. A very multicultural city. And we wanted that, for our jobs and for our children.

There's the... A6 which runs through the centre of Levenshulme is probably one of the dirtiest roads in... Manchester because there is no other way to get from Stockport into the centre. So, it has buses going up and down it all day long. The weight of traffic on there is quite – is quite bad.

When I was training as a GP, I was asked by a local climate action group to use their handheld monitor and measure the air pollution on my commute to work because they knew that I cycle to work. So, when I was cycling – mostly along the Fallowfield loop which is like a cycle path – I was expecting that to be quite good cos it's a fairly green area, you don't have to go on to a road. But it was really bad, the levels of pollution were surprisingly bad. And then when I came out onto the main roads, like the centre of Manchester, like the A6, the more busy it is, the more traffic, the higher the air pollution. A lot of our schools, a lot of our workplaces, my... own GP surgery, are on roads like that. Recently it has been revealed that we are the most polluted city in the UK.

I didn't know about the dangers of air pollution before that. It's not part of our training as doctors. It's funny, cos all the risk factors we learn about – being obese, smoking, diabetes, all these other things – that they're dangerous for health and like, that's what we're always talking to patients about. But air pollution has been shown to be the most dangerous risk factor for health in the world. It's... surprising that I didn't know about it – *laughs* – and I feel a bit silly now that I didn't know about it.

There's two main air pollution gasses that have an effect on health. One is nitrogen dioxide. And that is a gas emitted mostly by vehicles. And it is something that irritates conditions like asthma. So predominantly respiratory conditions, it gets into the airways and irritates them, makes them worse. The second gas is... particulate matter. And it's actually a mixture of solids and liquids suspended in air. And that is created by burning basically. So, fuel consumption. Probably the biggest contributor to that in Manchester is wood-burning stoves or open fires. The problem with particulate matter is the big particles will get into your upper airways and some... of the smaller particles will get down into your lungs and cause things like lung cancer, pneumonia, COVID-19. You're more likely to get asthma, bronchitis, all those things.

But the real danger is the tiny particles, the really small particles which are much smaller than the width of a hair, will cross over from the lungs into the blood vessels and reach anywhere in the body. So, it's been linked to stroke, heart attacks, dementia. It's been linked to diabetes. There's lots of evidence emerging that it actually causes miscarriage and... preterm birth. It's probably affecting every part of our body.

When you understand that and then you look at the numbers of people who have conditions like that in Manchester, hundreds if not thousands of patients would benefit if the air pollution was reduced. The most obvious condition is asthma because it's so visible. Like, if somebody is getting an exacerbation from asthma, they look like they can't breathe. They miss work, they miss school. It has this knock-on effect on their education and... their life chances if they are missing school continuously and going into hospital continuously with asthma exacerbations.

I look after a family who are – mum and dad are from Somalia. They have ten children, four of their children have got severe asthma. I saw mum one day and she'd been in A&E all night. Two of them were admitted to hospital and one of them had been in the intensive care unit and needed IV magnesium, which is a medication that we reserve for life-threatening asthma. And she's dealing with this on a weekly basis. She's coming into the surgery with these children, either one or two or three or four of them. And even though we've tried really hard to manage the asthma, it still seems to be an issue. And we've been trying to help them move house because they live on a busy road. And we think that probably has a big impact on why the children are so unwell all the time.

I see air pollution, and the problem of air pollution, predominantly as a social justice issue because most people who are struggling with the health effects of air pollution are living in the worst places for it. And the reason for that is because the cheaper housing and the social housing is on main roads. This is the case of this family; they live on a main road because they're in social housing. And when we tried to move them, there is nowhere else for them to go. For a family of ten, social housing only exists in places that other people don't want to live. So everywhere else, it's already on a main road or it's very difficult to actually rehouse a family of that size. So, for this family, I don't really see a way forward. There's no way to help them, except by reducing the air pollution in the air outside their home.

It matters to me personally because it affects my patients more, because my patients are mostly living in deprived conditions and are... more susceptible to the effects of air pollution, as well as being exposed to higher levels of air pollution. There's that, but there's also, you know, I live in this community as well as work in it and my children are young. I've got a two-year-old and a five-year-old and they're exposed to this... air pollution. And I know from the... evidence that exists, the studies that are out there, that my children's lungs will be smaller having grown up in an area of high air pollution than they would be if I had moved to the country and brought them up in the fresh country air. And that's upsetting, you know, it's... the idea that where I bring them up can actually affect how big their lungs are and how... easily they can breathe and their susceptibility to illness in the future. So, I feel strongly that nobody should have to make a choice like that and that we should be trying to reduce the air pollution as much as we possibly can.

I think there's a lack of urgency and there's a lack of ambition from the government in managing air pollution because there is so much that could be done. There are so many laws that could be passed. There are so many things that we could lead on in this country with air pollution, like reducing wood burning stoves and like reducing traffic in cities and urban areas. We're just not doing and there seems to be no appetite for it.