

Transcript of Question and Answer session at Taking a Deep Breath

On 10th June 2021 Professor Rosie McEachan, director of Born in Bradford, was the main contributor to 'Taking a Deep Breath', describing the impact of traffic pollution on health, and Born in Bradford's work to evaluate the Clean Air Zone. Please have a look at the event introduction, short film and Rosie's presentation ([here](#), altogether 54 minutes). This document is a transcription of the Question and Answer session.

Colin Hutchinson. Could you explain the rationale about charging buses to enter the CAZ but not charging cars? I thought we were trying to encourage people to use public transport rather than continuing to use individual transport, though I know there is a job of work to be done to lobby for clean buses rather than diesel buses.

RM. I will do my best to answer the question with my understanding of this. When the government directed local government to consider a Clean Air Zone they were asked to consider one of four types. The type you are referring to is a Type D which would involve charging all polluting vehicles including private vehicles [cars]. What all local authorities were directed to do was to do modelling to find which was the least stringent CAZ level that will get us to our legal requirements for pollution. In some areas such as Birmingham, they needed a charging system that included cars, in some areas including Leeds the modelling decided that they only needed to charge buses, heavy good vehicles, taxis and light good vehicles. So there is a range of options here. In Bradford my understanding is that the modelling indicated that a C level would be enough to take us to legal compliance. The other consideration is that Bradford, as I mentioned in the introduction, is a city which does have high levels of poverty. It's about trying to balance the unanticipated consequences of implementing a [particular level of] Zone. So if we were to go and charge all private vehicles to enter, it is very much case that in our poorest areas they are likely to have the older most polluting cars, they are likely to face more of the fines, they are already struggling financially, so potentially what might happen is that we might heighten health inequalities. It's a bit of a tightrope really, so I think what the Council has done is to be as ambitious as they possibly can within the constraints that the government funding has placed on them. I think they have done a good job and have really taken the health component of this to heart. They have managed to get the most money from government for things like grants for taxi drivers, trying to make real changes.

Anna Watson, host. If I can add, from what we as Clean Air Bradford were shown by Council officers of the modelling. They showed us that when all cars were included, air pollution went up in areas outside the CAZ, as people continued to use their car but used roads outside the CAZ boundary. Though within the CAZ boundary there was cleaner air, there was higher pollution outside the CAZ boundary through rat running and using different routes. In some ways we want it to be private cars as well, but they showed us modelling of this sort. Its also that bus companies for example have an infrastructure that can deal with these changes, but when you are dealing with individual households, it becomes more complicated about how you run a system of support for them.

Dave Robison. What are the factors that might negate benefits of the clean air zone. Are there ways in which local policy is working against it? For example approval of drive-throughs, and road improvement schemes, which might go against the objectives of the CAZ.

RM. What we're coming up against here is the complex system of what's going on in the city. I don't know how other things going on are going to impact on the aims. We will be monitoring so we will be able to disentangle what's going on over a number of years. There are things going on at the same time that we know about, but also things that we don't know about, which may have

unintended and adverse consequences, that will only become apparent as we go through this journey. That's why, I think, it's important to have that evaluative lens on what's going on.

Jen Barclay. How will the non-family people be included in the collection of the data? You mentioned some data for all Bradford residents, maybe we could a little more about that.

RM. It's a really valid point because the Born in Bradford cohort is a section of people with children who were born within a certain timeframe. So in terms of looking at the health impacts of the Clean Air Zone, we will be doing this District-wide. We will do this by using data that is collected by hospitals and by GPs, when people attend for respiratory conditions. We will be able to get a sense of the impact of the zone across the entire district. We had been thinking of how we can get wider input and views into the evaluation. We have developed a survey which we are hoping to launch on Clean Air Day on 17th June, which is the same survey which we are giving out to our Born in Bradford families. We thought there are lots of people in the District who would be willing to give their thoughts and opinions so we are planning to do a District-wide survey. So any help with distributing that using your networks would be really appreciated. Finally, we are planning to do a lot of one-on-one interviews and focus groups with business groups, with community groups, with voluntary organisations. This is all being planned after the implementation of the Clean Air Zone has been started.

Tony Plumble. Using the Born in Bradford data, will you distinguish the health effects in relation to the Nitrous compounds, the NO_x, the Carbon dioxide which is the climate change agenda, and the small particulates of various sizes.

RM. The main pollutants we have studied in the Born in Bradford cohort are particulate matter and Nitrogen Oxide or Dioxide, and we have included them as independent factors in their own right when we look at health outcomes. We do see differences, but the results are not very consistent. It's not one or the other, Nitrous Oxide or particulate matter. In the majority of cases both of those pollutants are implicated, or one or the other. So we tend to bunch them together as pollutants rather than look at the specific mechanisms by which they might have an impact.

TP. What is lying behind my question is the general perception that electric cars are wonderful things in terms of emissions. They may reduce the NO_x, but not the PM₁₀, they actually increase the PM₁₀ incidence per passenger km or vehicle km, because the vehicles are bit heavier primarily. Getting this message across to politicians is not so easy, because the political message has become that everything will be solved by electric traction of one form or another. And it won't be. But it would be useful if we could cite substantial studies that refute that view.

RM. The Clean Air Zone and the government direction is all around Nitrogen Dioxide. That's where the money is, that's where the fine [on government] was going to be. They weren't going to get fined for the levels of particular matter, which is very consistently implicated in poor health. The standards on particulate matter are going to get tighter. The sources of particulate matter from tyres but also heating and all these types of things which we need to start talking about a bit more.

Paul Hubert. There are many reasons for poor health outcomes, How confident are you about the role of air pollution in health outcomes? What will having the CAZ allow you to find out more about.

RM. We have enough evidence and studies now, that we can be very confident about the role of air quality on health. The benefit of a study like Born in Bradford which has very rich information over a period of a long time, is that we can separate out those other impacts that affect health outcomes. So my view is that we can be very confident of the evidence. In terms of the Clean Air Zone, my hope

and aspiration is that it can improve the levels of Nitrous Oxide but also particulate matter so that we will be able to start to see some health improvements. We will find out during the course of the evaluation. We have got plenty of air quality monitoring across the city, we know how to measure health, we will monitor a variety of health outcomes. If we can show that it works in Bradford then it will show that it can work in other parts of the UK. We are the only part of the UK that can do an evaluation like this..

Gordon Roscoe. I notice a motor trade article about a company moving onto Canal Road that hopes for much more business when the planned new road scheme is open. How will that impact on the Clean Air Zone? How would it impact on your plans should there be a significant upturn of traffic?

RM. I don't know. Anything that increases traffic is going to have a negative impact on air quality, which is bad for health. But I can't comment because I don't know the details of the plan. My personal view is that we shouldn't be doing anything that produces more traffic. How it will impact on the plans I cannot say, we'll have to disentangle it.

AW. We have to be clear that the scheme to widen Canal road and Valley Road has unfortunately been put forward by WYCA and our own Bradford Council, but it is not Rosie's scheme, nor is the CAZ her scheme: we are all looking to cleaner air, less pollution and better health.

Jane Thewliss. Does Born in Bradford have a view about the proposed expansion of Leeds Bradford Airport and its possible damage to air quality.

RM. I don't have a formal view or knowledge of the plans. Evidence shows noise and pollution are important influences on health, so we need to be very careful.

Sarah Mumford. I have been working with Born in Bradford and Bradford Schools next term, and also Otley 2030 where we're engaging the entire community in coming up with new solutions. I'm wondering whether there are ways of involving a wider community here. For example for a mum taking children to school means you're time poor so a car is needed to get to work. If we could organise sessions in communities with round tables, thinking about why each member uses a car, whether its cool speeding and playing loud music, or all the other reasons, then going backwards and thinking how to deal with each. For example do you really have to get to work by 9 o'clock?

RM. We don't have all the answers. We recognise absolutely the importance of finding what the barriers are, by talking to people in their community. I have found that children are so signed up and passionate about climate. They are great advocates. Getting school children to be agents of change in the community is really important. If we're telling people to get out of their cars and walk then there needs to be safe places to walk and to cycle, there needs to be clean routes to school or work, be able to get on a bus or train. If we keep the focus on the individual, we also need to keep the focus on the city and work out how it can be easier to live in without a car.

Kath Jackson. Writing to 4 local primaries about the campaign I got no response. How has your involvement of schools gone, what are the ways in.

RM. Yes we are involving schools right in the middle of the CAZ zone, in the very polluted areas, but also outside the zone to see how the impact of the CAZ distributes across the Bradford District. School have been receptive and keen to take part, but in the last year, it's not been feasible with the pandemic to collect data or do much with schools.

AW. As Darren has said in the chat, finding parents in the school is a way forward, but it is much harder in the pandemic.

Ludi Simpson. Is there room for others including ourselves and other organisations to responsibly get involved in the monitoring in a way that can feed back into your evaluation and make us much more realistic and in tune with what is going on?

RM. The short answer is yes, that would be brilliant. The idea is that we are constructing these air quality sensors and they will be primarily used in schools at particular times, but we were thinking about what we would be able to do with them in other periods, for example school holidays, and we were wondering whether community organisations might be able to help, cycle round Bradford, and get us more reach. Watch this space. With the pandemic things are little delayed in getting these sensors ready but thank you we would really welcome that. If you are able to help us spread the word about the survey around air quality attitudes behaviours that would be fabulous when that is launched.

AW. Thank you Ludi for organising the event. We have had other questions and comments that are not so much for Rosie to respond to but more directed at the Council. Maybe we can think about having a different discussion with Councillor Alex Ross Shaw or Sarah Ferriby who have this remit. Thank you so much Rosie for fielding all these questions, even the ones that are on the edge of your expertise. We have a note of questions we didn't get to, and we can try to get those answered. Thank you for your engagement.

Remember next week is Clean Air Day, organised by Clean Air Bradford, Capital of Cycling and others, we are going to have bike repairs in Manningham Park in the afternoon and you will be able to make messages and we will have a led cycle ride from Lister Park to Bradford demonstrating how easy it is to get around Bradford. Last week I counted 70 cars that I passed cycling along the Bradford-Bingley Road, not speeding past but I was still there first. Find out more on the Clean Air website.

I think we're done. Ludi do you want to sign off, I hope it has met all your expectations?

LS. It has indeed. Thank you everyone for coming. Thank you Rosie, thank you Anna. You are all on our newsletter list, we did it as an opt-out rather than opt in so you will get a newsletter in the next couple of weeks and a link to the survey that maybe Rosie can supply. You can sign off then if you want. But it would be good to get a couple more people involved, there is a lot of work involved in public education and in campaigning to see Clean Air not as something which is simply to get to just below the legal climate but is important to health and climate. What would the Clean Air Zone look like if it was climate -led? We need to think those things through. Thank you very much, all of you.

Some other points were made in the Zoom 'chat' that are not covered by the transcript above:

Darren Parkinson. Birmingham's new CAZ includes private cars - will be interesting to see impact of this on reducing air pollution and any health/social impacts.

Sarah Mumford. Once there is easy electric car charging – especially for terraced property and flat dwellers , and electric cars are affordable, then those who really need cars will shift easily?

Jenny Jowle. Aren't the council offering funding to the bus companies to use more friendly vehicles? Similar to what they are offering taxis. So then hopefully fares won't go up.

Sarah Mumford. Leeds improved when the CAZ was announced: buses, taxis, lorries etc started getting ready for it ahead of time - so in effect just the knowledge of it did the trick - though it's early

days. And of course, once work from home rules are lifted it may change things but Council don't seem to think so.

Darren Parkinson. Potential park and ride is being planned from around M606 down Manchester Road.

David Robison. It would also be really useful to make a connection to active travel somehow. Will walking and cycling increase within the clean air zone for example because the environment is perceived as more pleasant.

Sarah Mumford. Travelling less full stop will be key - lockdown been a great teacher from that perspective.

Chris Bem. Another problem with electric cars is that cars will still dominate roads. Could/should Bradford be a pioneer electric-bicycle city, inspired by the wish of Bradford to be a city of research.