



RCPCH Podcasts | Impact of climate change: Canada Transcript of podcast – Autumn 2024

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Bernie

So good, afternoon, evening, morning, whatever time you're listening to this. This is the Royal College of Paediatrics and Child Health climate change podcast series, and in this series, we're exploring the impacts of climate change on child health globally. My name is Bernadette O'Hare. I'm chair of the international stream of the Royal College of Paediatrics and Child Health Climate Change Working Group. I'm a senior lecturer in global health and University of St Andrews, and I've worked for several years in Africa as a paediatrician.

In the summer of 2023 so last year, we sent a survey out to members of the Royal College who were working overseas or who had recent experience of working overseas, anywhere outside of the UK. And really what we wanted to do was to find out more about the impact of climate change, where they were or where they had worked. As we went through the responses, we decided it was very important to share these experiences that we were reading about with a wider audience, to provide a platform for others to hear about these diverse experiences from different parts of the world, and particularly about the unequal impacts of climate change that it's having on children in different groups and in different countries. So today, I'm lucky enough to be joined by Dr Julian Pleydell-Pearce, who is all the way from British Columbia in Canada. Thank you, Dr Pearce for joining us.

Julian

Thank you very much. I'm looking forward to this.

Bernie

Good. Now I was wondering, just to get started, could you tell us a little bit about yourself, where you work and who you work, what sort of children you have worked with. I know you recently retired, but just tell us a little bit about your background, that would be great.

Julian

I was born in Bridgewater in the West Country, and brought up in Bristol. I attended a school in Bristol where I was no good at science at school, and I went to London University and did a history degree, after which I had no idea what I wanted to do. So I got a heavy goods vehicle driving license and was a long distance heavy goods vehicle driver for about seven years. I also qualified as the heavy goods vehicle driving instructor, which helped then pay my way through medical school, and I managed to get into Bristol University Medical School, where I trained. And then I having done paediatrics for three days, I knew that was definitely what I wanted to do for the rest of my life.

So I trained in paediatrics on the Southwest Regional rotation in general paediatrics and paediatric oncology. And then I worked as a consultant in the north Hampshire Hospital, doing general paediatrics and shared care oncology until 2007 when I was offered a job in Canada, in British Columbia, in the Lower Mainland, and moved to Calendar, where I've lived for the last 17 years. So in Canada, I've worked in a district general hospital doing general paediatrics, and increasingly more developmental paediatrics, because there was a great need for it. They don't have community paediatricians in Canada, I could see that there were a lot of children with developmental issues who weren't very well served.

So I sort of partly retrained myself and started doing clinics at the Fraser Valley Child Development Center, which then became the focus of my practice as I got older and moved towards retirement, but I continued doing acute paediatrics and supporting the on call service, including through COVID, until I retired completely in November of 2021. So that's a brief summary of my history.

Bernie

Thank you Julian so much. What an amazing history you've had in paediatrics, you know, in in the UK and in Canada. Thank you. Would you tell us about your experience of how climate change has impacted you know, your patients during, you know, I guess during your time in Canada, would you tell us what your thing what you've noticed about the impact of that the climate emergency is having on your patients and on their families?

Julia

Well, I think one of the things that seems very clear to me is that over the last five or six years, there's been a significant change in the climate that we've seen here before that the climate was fairly predictable. It was cold in the winter, it would often snow, which was great for people like me who like to go skiing. It's pretty wet during the autumn and winter, either with snow or rain. It's often cold. Called the wet coast, rather than the West Coast, and then we normally have quite good summers with temperatures in the mid to high 20s, usually with about six to eight weeks of dry weather. And that seemed fairly consistent to my mind, until about five or six years ago, when we started to see a lot more extreme climate changes. And then in the last two or three years we've had some really significant climate events, which I'm happy to go through you in turn, because

there have been quite, quite a few of them, and all of them have significantly impacted children in a whole variety of different ways.

It's interesting that there was a recent survey of BC, or youth in BC, which showed that at least 80% of children who were surveyed were worried about the impacts or the potential threat or harm from climate change, which is a surprisingly high number, but 6% of those children expressed that they had significant eco anxiety at least one out of two days over the previous two weeks. So from that, I think we can begin to see that climate issues are beginning to impact children significantly, and it's certainly something that they're thinking about.

Bernie

Thank you very much, and sorry just to go over, did you say 6% of those children have equal anxiety?

Julian

Yeah, 6% were having significant anxiety and really needed mental health support for that.

Bernie

Oh, dear. And the events you mentioned, what sort of events were those? The major events you mentioned?

Julian

So, so the whole of the Fraser Valley was or large portions of it were flooded in November of 2021, a lot of farmers were flooded and the crops were ruined. Thousands of people were displaced from their homes. The highway was cut off going from the Fraser Valley into Vancouver, because it was completely underwater. At the same time, there had been so much water to the east of us in the Cascade Mountains, where the major highways go through to access the rest of Canada, that all three of those highways were either cut off because of landslides or because parts of the road and rivers have been washed away. And in fact, the main highway out of BC, I think the road was washed away in about 17 or 18 places, and it was a couple of months before they were able to reopen it.

So we were completely cut off from the rest of Canada. So for instance, the only way we could get patients who needed tertiary care out from the hospital would be by helicopter, for instance, because nobody can make it by road. And of course, schools were closed, families were displaced, and that has a major effect on children, because they sleep in gymnasiums with bunches of other people. They have to go and live in hotels, which anyone who stayed for a long period in a hotel know is really quite depressing, really, because it's not home. They lost many of their prized possessions. They're separated from their friends, and it has significant mental health issues on the local population.

Bernie

A major disruption to a child's life, isn't it? And I'm sure, particularly your patients in your developmental clinic would you would feel it even more so?

Julian

Well, exactly, because, you know people, the flooding happened quite quickly. People would have to abandon their homes. They couldn't bring all the right equipment that they would normally need to help care for their children, particularly those with severe disability. So it was extremely disruptive, and more so for those families with poor economic status, of which a large number of First Nations, children who live on their own, sort of small areas of territory that they've been left following colonization by the Europeans.

Bernie

And the First Nations children, are they particularly impacted is that because of their situation, sort of prior to climate change. Or what would be your comment on that?

Julian

Although Canada has a wide range of different ethnicities, I mean, it's a country of immigration, and so we have, we have many different nationalities who live in Canada. And by and large, everybody gets on well, but there is prejudice, as there is elsewhere in the world, and a lot of prejudice still exists against First Nations, people whose traditions and rites and rituals have not been well respected. In Canada, there's been a recent Truth and Reconciliation program in Canada, which has started to try and undo some of these really difficult colonial issues. But for many people who live in First Nations, they feel disadvantaged, and I do see from my own personal observation that they often get treated less well in hospital environments, and people are not very sensitive to their cultural needs and outlooks when they come and access healthcare. So that's still a significant problem.

Bernie

That's flooding. What about heat waves? How do you find it affected children during over the last couple of years?

Julian

We had, we had a major the same year in 2021, during June, we had a major heat wave in BC, which became known as the heat dome a town not far from us called Lytton in BC, for three days running, was the hottest ever place in Canada, reaching a temperature of 49.6 degrees centigrade. And then the following day, following that record, it actually burnt down. The entire town was completely destroyed by fire , and everybody who lived there was displaced, and they're still displaced. Now, there were a considerable number of excess deaths during that time, 16 130 people died, which was 714 more than would be expected. The emergency services were completely overrun by people

calling because they were in distress because of the heat. And review of some of those deaths shows that most of those who died were in care homes or poor socioeconomic status, or lived in areas where there was very little greenery or green space in urban areas. And the interesting factor is that most of those who died inside because they were too hot inside, not because they were too hot outside. And I mean, there are large numbers of people in British Columbia, because the climate has never been this severe before, who don't have air conditioning and so on.

Bernie

And the hospitals and clinics, how are they? Are they prepared for the climate emergency to deliver health care.

Julian

I don't think they were prepared, and everybody admits that this was the case, and health authorities have been looking and plans are in place to try and mitigate the impact of these events. Should they happen again, which I think is likely to happen. We'll have to wait and see how effective those are. But I mean, there's a shortage of healthcare workers in BC, there's a significant shortage of family physicians. So 25% of British Columbians do not have a family physician, and they rely on either going to a walk in clinic or going to the emergency room.

From the heat wave we saw a lot of children who came to the emerge with heat stroke and dehydration. We saw children with burnt feet because they've been out on the hot concrete, patients. And there was one lad I saw when I was on call who'd been seen the previous day in the emergency room, been to the water park with the school. Mum had sent him a sunscreen which he'd not put any on. He had second degree burns. We had to give him conscious sedation in order to change his dressings and sent into plastic surgery at the children's hospital.

Bernie

Goodness me, right, yeah.

Julia

The other thing that we've also had is forest fires every year. For the last five years, the forest fire season has been the worst one ever. So they every year, they get significantly worse. And last year, 2.8 4 million hectares of forest was burnt in BC. That's the equivalent of 11,000 square miles of trees. The smoke was so dense sometimes that looking out of my house, I could hardly see more than 100 meters in front of me. And the consequence was we had lots of children come to the emergency room with respiratory problems, exacerbations of asthma, children with cardiovascular disease, kids with cystic fibrosis and so on, who were really struggling because of the really poor air quality. At some point, it was the worst air quality in the world, I think.

Bernie

How would air pollution be, you know, outside of the you know, the fire season. Is it particularly affecting Vancouver, or is it throughout the territory?

Julian

Overall, if there's no fires, I think the air quality is very good. But once the fire season starts, and if the smoke blows in, then depends where the wind is. If the wind's blowing in the other direction, it blows it across the province and over into the prairies. And there were some startling satellite images of the smoke cloud from BC being blown across all the way across Canada to the towards the eastern border.

Bernie

and I'm sure that would also cause disruption in terms of displacement and missing school as well, for families.

Julian

Yeah, it's very disruptive for families. The fires, it's a great anxiety. And I admit to having some anxiety myself, because I live surrounded by trees, and the one thing we fear is a fire, because there's very little mitigation you can do once a fire and the wind blows, there's it's extremely difficult to stop it from spreading. And there's a there's a lot of anxiety amongst families and kids about fire and losing their homes and so on, and families get displaced, and again, there's all the mental health issues that come with losing houses, loved ones and so on. Fortunately, deaths have been few from fires, and people are pretty good at being evacuated early if there's if they're in danger, but for many people, it's a cause of significant anxiety.

Bernie

And just in your responses, you mentioned malnutrition as a problem. Could you tell us more about that? Because, again, we would find that very surprising in a country in like Canada.

Julian

Well, of course, all these climate events have a significant impact on the food chain, either because food can't get there. The Fraser Valley is a is a big farming area. So although there are towns dotted along the Fraser Valley, as you move east from Vancouver, there are large areas which are known as the agricultural land reserve, where you cannot build houses, and it's a major food production area. And of course, with all these climate events, with the long, very dry, hot summers that's affected crops, and then with all the flooding that destroyed the farms that affected the amount of food that was available. A lot of people in Canada depend on food banks, and of course, when there's a dearth of food available, food banks suffer and poorly resourced families find. Much more difficult.

The other thing I was just going to say was that we've had a lot of in although we've had all this flooding in the we also get droughts, so we've had some very dry weather since the flooding. It was

very dry last year. A number of communities ran out of drinking water along the Sunshine Coast, which is the coast up from Vancouver, mainly because they built so many houses in excess of the available water supply. So people had no drinking water. We've had a very low snowpack this year without much snow and a lot of higher temperatures with rain, which has washed the snowpack away. So the drought next year is likely to be even worse, and that will impact food production, water availability and so on.

We see glaciers receding at an alarming rate all over the north of Canada. Permafrost in the northern latitudes of Canada is beginning to melt that's leaching out a lot of water and iron, which is acidifying the rivers and the affecting all the aquatic animals and the salmon who come to spawn in those rivers. We've had some very low salmon runs in recent years because the temperature, the warming temperatures in the ocean. So all of this affects food production, and of course, for the First Nations, people, many of whom still live quite particularly in the northern latitudes, who live more traditionally, living off the land. It introduces additional insecurity. We still have large numbers of First Nation communities who don't have adequate drinking water that's safe to drink, for instance.

Bernie

Which is again hard to believe in this day and age, there's people living in Canada without our children, living in Canada without their fundamental economic and social rights. And then in terms of, it's the impact of the climate emergency on you and your family. Could you tell us a little bit about that? You know? How does it affect you personally?

Julia

All these things affect me, I suppose, personally. One remarkable thing that happened was that I was driving home one night on call in about two in the morning. There'd been torrential rain for several, several days. It was in the it was as the tail end of the winter, which had been quite cold, so the ground was frozen, so there was nowhere for the water to seep away into. About 20 minutes after I'd driven over this particular road, the whole thing gave way and slid down the hill into a house that was beneath it. Fortunately, no one was the dog was killed, and a girl had to be rescued from her bedroom covered in debris and mud and so on. But fortunately, nobody lost their lives. But that was one fairly dramatic example.

Bernie

A real impact on your day to day life, yeah, and your families. And I think you've already touched on some of the adaptation that you think would be useful in your country, and also on some of the reasons why they might not have been introduced. Is there anything, any of those you'd like to discuss? You mentioned that Hydroelectricity is good and that you've got hydroelectricity in British Columbia. Any other recommendations that you think that would be good in your setting?

Julian

I mean, it's good that we do have hydro, although, of course, building a new dam to maintain the hydroelectric capability for the future caused major political issues, particularly with First Nations communities, some of whose land was affected by the lakes that were going to be caused by creating the dam, etc.

Well, there are two things. I think there are two strands, I think we do very poorly, or three strands, maybe, let's say we do very poorly. Trying to explain to people how climate change has all these knock on effects that are not always easy for people to see. That roads closed here prevent food from being delivered. It means containers are all in the wrong place. People can't get access to foods it put it puts prices up and so on. It's difficult for people to see how work on infrastructure is going to help them in in the future, I think we need to do a much better job of explaining how we need. Mitigate climate change. I think people are always thinking, well, this is something we should probably do, but we can put it off to the future, but it's not something we need to do now. My big concern is that nobody will take sufficient notice to take this seriously until some major city somewhere in the world is completely flooded, and then people may start to take this more seriously.

We need significant investment in helping people mitigate fossil fuel usage so people having you can get heat pumps here, the financial incentives are not sufficient for people at the lower socioeconomic end of the scale to be able to afford to do that. The same goes for solar panels, which are extremely expensive to install, so we need much better incentives. There is, on the other hand, people are building more energy efficient houses with all of these ideas in mind, but that's only going to be a small proportion of the total housing stock, and a lot of people are still dependent on gas furnaces to heat their houses., are going to be without air conditioning and so forth, and I still see that they're going to be significant health problems.

And we underestimate how these health problems affect children, because if adults are stressed and unwell or suffering from climate change, or lose their jobs because of climate change, or can't work, it has a significant impact on children, and which we which we don't always, people don't always think about but if you question families about it, it seems becomes clear that these type of issues having a significant effect on the mental health of children. I think we're not very good at asking families about how climate change is affecting them, and we could do a much better job of asking about that and therefore advocating the Canadian Paediatric Society, doing a lot to try and advocate about climate change. Doctors of BC, again, trying to do a lot to advocate. But that can only go so far. We need more political will to begin to change things, and that's limited by the closeness people are to the next election, which is, to my mind, the most significant problem to making progress.

Bernie

Fantastic. Thank you so much, Julian, and just you know you've had a wealth of experience, both personally and professionally, of the impact of climate change on you and on children. What do you think we as paediatricians should do? What's the best course of action that we should take? Bear in mind that many people are, you know, working full time, and they don't have that much time to spend advocating.

Julia

It's a challenging question because I often ask, could I have done more myself. But I mean, we are really short of paediatricians, and often you're running around putting out fires, and you don't have enough time to try and devote to some of these issues. Many paediatricians, by their very nature, are not sort of adversarially political, but I think we maybe could do a better job of trying to alert the public. Maybe have more sort of public meetings where paediatricians went to and talked about some of these issues and so on. I mean, after all, children use a lot more oxygen, air, food, water per kilogram than adults do, and we also should emphasise the way in which these climate changes are impacting children and their welfare for the future, because the one thing parents do worry about is how they're what the welfare of their children is going to be in the future, and that's a potential avenue for getting people to begin to take the climate change issue more seriously perhaps.

Bernie

Very good point. It's a very important sort of lever to educate parents, because once they know that this is going to have a very detrimental effect on their children's future. We may get somewhere. Is there anything else that, before we close? Is there anything else that you think that's important to our membership or that we should take away messages from this podcast?

Julia

I think, I mean, I've always been impressed about how the Royal College has taken the global approach to child health. And I think these podcasts are hearing from other people in different parts of the world who I'm sure will all share a similar message. I think if we can begin to show people that the message is the same whichever part of the world you live in. I think that's going to be a very helpful way in educating people that this is a real sort of real issue, and it's not just a local one that affects people on a local basis, but it's just part of the much wider picture.

Bernie

Thank you very much indeed. So thank you for joining us, Julian, it was an absolute pleasure to meet you and talk to you and learn from you. And I think for me, the takeaway message from what I've heard today is, you know, the important things is as everywhere you know, forest fires, flooding, heat waves, these all have played a big role in the climate emergency in the part of the world that you're in and they've negatively affected child health through a variety of methods, be it through the

impact on food, the impact on their mental health, even their impact on the parents, which then, of course, will have adverse effects on the whole family and children.

And I think the other important thing that I think I took away from you is the fact that you brought up the idea of asking families, has climate change affected their children? Because I think even asking that question allows people to think about it, and then, as you say, build up our the public knowledge on this, on the links between sort of spending money to adapt a certain infrastructure to avoid damage in the future, which will hopefully, you know, benefit child health in the long, long run.

So thank you Julian, and thank you to everyone for tuning in today. And I hope this has inspired us, as it certainly has inspired me to continue to think and to be involved in climate action. And we have some recently relaunched resources page and our Preserving the World for Future Generations report with some excellent recommendations from young people and from the Royal College climate change eBulletin. So I recommend you go there and have a little browse of those web pages. They're absolutely fantastic. Thank you.

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