

Children's Health /Climate Change Podcasts

Second in A Series of Three Podcasts to air during October 2015, focusing on the impacts of Climate Change on Children's Health

Guest: Dr. Laura Anderko, Director of the Mid-Atlantic Center for Children's Health and the Environment

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PODCAST #2 - -Heat and Declining Air Quality – Children's Health Issues

HOST: Hello: I'm Prentiss Ward, EPA's Children's Health Coordinator for the Mid-Atlantic Region, and welcome to Environment Matters. As we continue our Children's Health Month podcasts, I am delighted to welcome back Dr. Laura Anderko, (pronounced – *ANDER-KOE*), Director of the Mid-Atlantic Center for Children's Health and the Environment, and a 2013 White House Champion of Change, for our second podcast on Climate Change as it relates to Children's Health. Welcome, Dr. Anderko.

Dr. Anderko - - thank you.

HOST: During your previous visit, you briefly discussed the impacts of a changing climate. You mentioned that the mid-Atlantic region will see increases in temperature and this will impact children's health in a variety of ways. Can you elaborate on these impacts and tell us a little bit about what you are already seeing in terms of children's health and increasing temperatures?

22:17-23:03

Dr. Anderko: What we know is that rising temperatures are associated with poor air quality – so as the temperature goes up the air quality goes down. Part of this is because of the increasing formation of ground level ozone. Ozone is a powerful lung irritant and can lead to a number of adverse health effects in children particularly - such as shortness of breath when inhaling deeply, wheezing and coughing, decreases in lung function and also lower respiratory tract infections. Children have an immature immune system which can put them at greater risk for these infections.

28:34 – 29:04

We are seeing in the DC area, particularly in the Fall when the pollen count is high, huge increases in the number of kids hospitalized with a combination of the hot weather and the pollen, and the air pollution - it becomes increasingly difficult for kids to breath. And they develop respiratory infections on top of it. This is because kids have an immature immune system which puts them at greater risk for these infections.

HOST: What about for very young children and newborns?

23:04 –23:47

Dr. Anderko: Many people are not aware that damage can begin even before children are born. Fetuses are not able to rapidly clear and detox the pollutants that cross the placental barrier. And then it enters their bodies. What we've seen as a result of some of this is lower birth weights, deficits in lung functions, developmental disorders including reduced IQ and behavioral problems, and in some cases increased cancer risk, which have all been linked to prenatal exposure to air pollution which is caused by fossil fuels.

HOST: Are there other impacts of climate change on people's health?

30:00- 30:49

Dr. Anderko: Another really important point about asthma, allergies and respiratory issues is that with the increased temperatures and the carbon dioxide, we are seeing more pollen. And (so) ragweed enjoys the increased carbon dioxide in the air, and the heat, and thrives. We are seeing longer growing seasons. We're seeing pollen for example in the DC area as early as February and late as December. People who are susceptible - and more and more people are because the pollen is more potent, more allergenic, (it produces) the plant produces it more often - are experiencing allergic reactions who typically have not.

30:51 -31:23

And one other important point around increasing temperatures is we are seeing increased distribution of insects that can transmit diseases such as ticks. And ticks can carry lyme disease and we're seeing an increasing rate among children 5 to 14 years of age. Kids are especially vulnerable because they tend to play outside and low to the ground and can pick up the ticks much easier.

HOST: Dr. Anderko, many parents who are listening are probably wondering what they can do to protect their children from experiencing these health issues – what advice and resources do you provide to parents?

32:03 – 32:59

Dr. Anderko: In regards to Air Quality, the EPA has a wonderful website that provides air quality index info, you can actually register to get a text to tell you what the weather is going to be like the following day, particularly for kids who are already suffering from asthma and allergies, it will tell you whether it will be a good day or bad day for breathing the air. Kids like to play outside particularly at recess, we need to protect them if we know that the air quality is bad.

In regards to insects that carry diseases, we need to make sure kids wear protective clothing, long pants, long shirts and to check them particularly for ticks after they've been outside playing, just to do a quick check to make sure they didn't pick up a tick, either on their clothing or on their skin.

HOST: Dr. Anderko, thank you again for another thought provoking discussion on this important and timely topic. I am happy to say that Dr. Anderko will be joining us one more time to continue this discussion. In the meantime, for additional information, our listeners can visit the climate change and Childrens' Health websites at EPA.gov, and to sign up for text alerts on air quality forecasts, visit airnow.gov

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