In the field of social research, one of the most difficult challenges is to establish cause and effect. That is, we may know there is a correlation between the presence of trees and various health benefits, but what exactly is the reason for it?

A good example was an intriguing study conducted in Portland, Oregon, by Greg Donovan and his colleagues at the U.S. Forest Service Pacific Northwest Research Station. The researchers found a relationship between healthy babies and trees within 50 meters (164 feet) of their homes. For each 10 percent increase in tree canopy in this zone around a house, the rate of undersized newborns decreased by 1.42 per 1,000 births. By applying this finding to the improvement of public health and the reduction of medical costs, we can see that if the city were to increase tree cover by 35 percent, there would be fewer undersized newborns per 1,000 births. That, of course, is not even mentioning the other benefits described in this bulletin.

The research question is: What is the exact role of trees in producing healthier babies? Other research suggests that exposure to nature can reduce stress levels. Stress in pregnant women is known to be harmful to the developing fetus and can increase the probability of underweight birth. Perhaps that is the cause of the beneficial effect. Or is it that women of a certain background are more drawn to living in an area with trees? Perhaps that same kind of woman is more likely to take better care of herself?

"In our model we tried to account for about 100 variables," Dr. Donovan said. "This isn't the final word."

The conclusion is that there is definitely an important link identified by the research. Whatever the explanation, the bottom line is that trees are vital. It is one more piece of evidence that trees are important to public health.