Socratic Seminar

Air pollution kills thousands of Americans every year – here's a low-cost strategy to reduce the toll

In this Socratic Seminar, you will read a text from *The Conversation* that describes a study about cost-effective ways to reduce deaths related to particulate matter (PM) pollution. The National Ambient Air Quality Standards, set by the Environmental Protection Agency, are regulations that place limits on the concentrations of six major air pollutants. These limits have helped reduce air pollution, but air pollution is still a threat to human health and many scientists think further reductions in pollution are needed. The authors of the study wanted to find the least expensive set of actions that would meet energy needs while also limiting the number of deaths related to $PM_{2.5}$. Instead of looking at the costs and benefits of specific pollution control technologies, they used models to identify sources of pollution whose emissions cause disproportionate deaths from $PM_{2.5}$.

Questions to think about

1) Do you think focusing on air pollution reduction strategies that save the most lives for the lowest cost is the right way to approach to this problem? Why or why not?
2) Do you think people that live in Colorado will have the same opinion of the plan described in the article as people in New York? Why or why not? Hint: look at the map in the article.
3) The authors found that reducing death from air pollution might not lead to reductions in carbon dioxide (CO_2) or greenhouse gas emissions. What are some reasons for this?

References:

Link to an article about the study published in *The Conversation*: https://theconversation.com/air-pollution-kills-thousands-of-americans-every-year-heres-a-low-cost-strategy-to-reduce-the-toll-131875

Link to the study published in Nature Communications: https://www.nature.com/articles/s41467-020-14783-2