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Car Types to Pollution and Health: What's the Best Option?

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Car Types to Pollution and Health: What's the Best Option?

Background

Air pollution has been an issue discussed for decades now. And as known, a great fraction of air pollution is due to cars. Cars emit chemicals like carbon dioxide and carbon monoxide. These chemicals may not be harmful in small amounts, but when there is too much, it becomes very harmful for our environment and our health. And it has gotten to that point already, there is too many of these chemicals that it has become harmful and is causing health problems like dizziness, difficulty breathing, elevated blood pressure, and even premature death. **The main chemicals that are in this research is CO₂ (carbon dioxide), CO (carbon monoxide), PM 2.5 (particulate matter), SO₂ (sulfur dioxide).** But with this has come a possible solution: electric vehicles also known as EV's. We now have the 3 options of EV's: **HEV's (hybrid electric vehicles)**- it has an electric system with an internal combustion, which works on fuel or gas, but it mostly works on fuel. **PHEV's (plug-in electric vehicles)**- they also have an electric system with an internal combustion, but it has a larger battery and the electric system does most of the work. And **BEV's (battery electric vehicles)** that are entirely powered by a battery, and no oil is needed at all.

Methods

- Split into 4 sections:
 - 1.vehicle contribution to air pollution to health
 - 2.**ICEV's (internal combustion engine vehicles) vs EV's (electric vehicles)**
 - 3.HEV vs PHEV vs BEV
 4. BEVs are the best option for our environment, health, and future
- Mixed methods with content analysis and correlational studies.

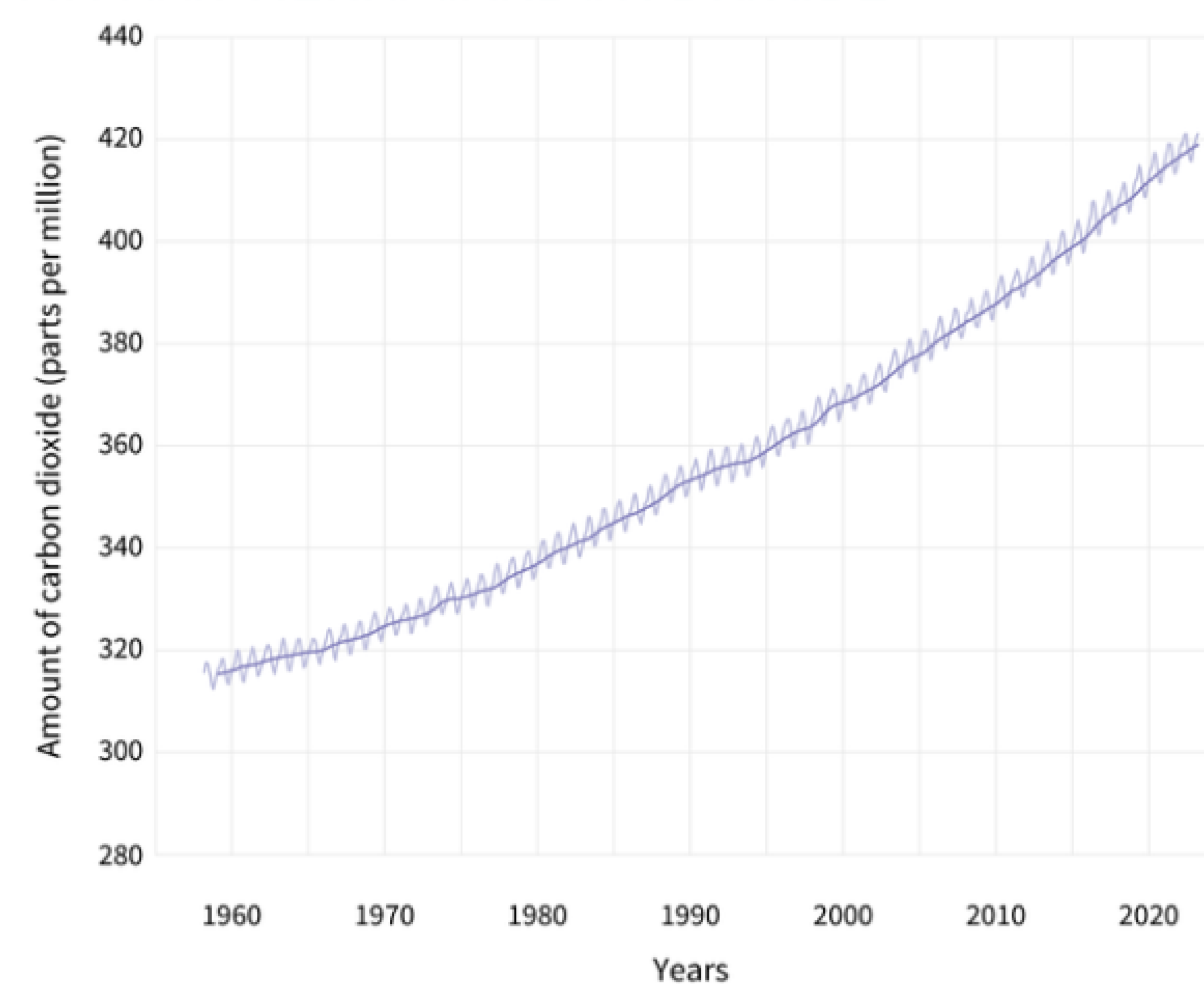
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Findings: BEV's are the best vehicle option for our health

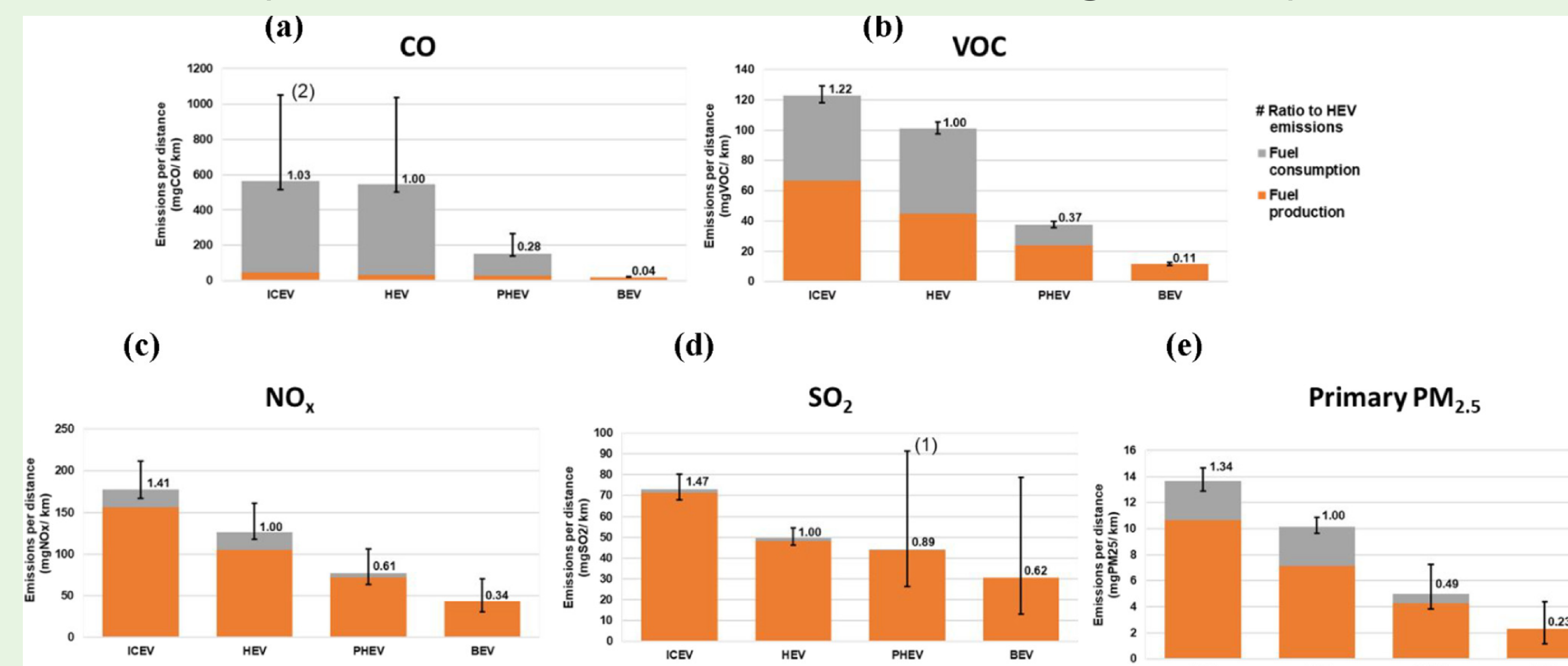


"Improve fuel economy; increase adoption of electric and other noncombustion engines; tighter on-road vehicle emissions standards" - "Reduce conventional air pollutants" - reduce Cardiovascular morbidity and mortality; asthma and other respiratory diseases", (Environmental Health Perspectives)

ATMOSPHERIC CARBON DIOXIDE



A study done found that ICEV vehicles emit around 300g of CO₂ per Km. HEV's emit around 230g of CO₂ per km. PHEV emits around 215g of CO₂ per Km. And BEV's emit around 210g of CO₂ per Km.



For future initiatives

- Toyota will expand their BEV lineup, by 2030 they will offer 30 models
- **Toyota have invested \$35 billion in BEVs starting 2022- 2030**
- Lexus is working towards a goal of 100% BEV models worldwide by 2035
- Lexus will soon have a full bEV lineup by 2030

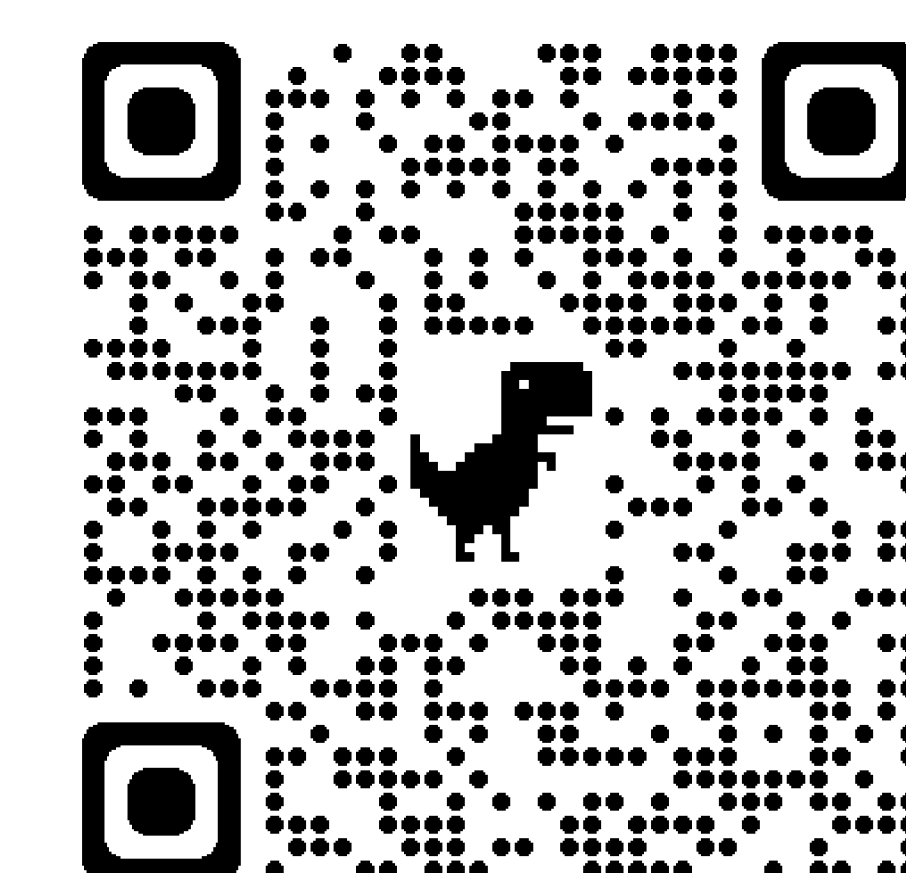
Objective

Address that the best vehicle option for our health are BEVS

Conclusions

- The production and marketing of BEVs should increase
- BEVs emit the least GHG and chemicals out of any other vehicle types
- **Increased awareness to the public of BEVs is essential for our future health as a nation**

Bibliography/References



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