WASHINGTON PHYSICIANS FOR SOCIAL RESPONSIBILITY

INITIATIVE 2117

A RISK TO OUR HEALTH

AN ANALYSIS OF THE THREATS TO HEALTH POSED BY I-2117

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Washington Physicians for Social Responsibility is a state-based health advocacy organization and registered 501(c)3 nonprofit in the state of Washington comprised of leading healthcare professionals comitted to engaging the community to create a healthy, peaceful, just and sustainable world.

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Executive Summary

This paper evaluates the significant health impacts of Initiative 2117, which proposes repealing Washington's Climate Commitment Act (CCA). Enacted in 2021, the CCA is a cap-and-invest program aimed at reducing greenhouse gas emissions and reinvesting revenue into Washington's communities.

Washington Physicians for Social Responsibility is focused on the health impacts of CCA programs and the risks associated with their potential repeal:

- **Air Quality and Respiratory Health:** CCA funds directly improve air quality and enhance respiratory health. Investments include $25 million for air quality improvements in overburdened communities and $38.6 million for projects that reduce health disparities. These help lower respiratory conditions like asthma, particularly in children.
- **Cardiovascular Health:** By reducing air pollution, the CCA mitigates risks associated with cardiovascular diseases, leading to fewer heart attacks and strokes.
- **Mental Health:** The CCA supports urban forestry and safe outdoor activities, improving mental health outcomes by providing access to green spaces and promoting physical activity.
- **Protection from Extreme Heat:** Urban forestry projects under the CCA help mitigate urban heat island effects, reducing health risks associated with extreme heat, such as heat strokes and dehydration.
- **Overburdened Communities:** The CCA directs 35-40% of its revenue to benefit overburdened populations and a minimum of 10% to Tribal projects. These investments address disproportionate health impacts on economically disadvantaged communities, ethnic minorities, and indigenous populations. Repeal would exacerbate health disparities in vulnerable communities, worsening existing inequities.
- **Pediatric Health:** The CCA provides free public transit for youths, funds the electrification of school buses to reduce exposure to diesel emissions, and supports safer walking and biking routes, enhancing physical activity and safety for children.

Repealing the CCA through Initiative 2117 would reverse these benefits, disproportionately affecting the most overburdened and exacerbating the health impacts of climate change. Rejecting the Climate Commitment Act would be a step backwards in terms of protecting our elders, our children and grandchildren, and our future. We urge you to vote No on Initiative 2117.

Our Prescription: Vote No on Initiative 2117

Cap and Invest and the Climate Commitment Act

There is general agreement among economists that a price on carbon dioxide emissions will be necessary to drive the transition to clean energy. (1) Cap-and-invest models are a well-tested way to limit carbon emissions; similar programs have shown success in the Canadian province of Québec and California.

What is "Cap and Invest"?

Most commonly carbon pricing involves either a direct tax with a specified dollar amount per ton of CO2 or a 'cap and trade' where the maximum amount of CO2 emitted is specified and permits to pollute are sold at auction. The cap gradually decreases, giving businesses time and incentive to innovatively reduce their greenhouse emissions. Emission allowances assign a market price to carbon production.

There is a significant concern among environmental justice advocates that the fossil fuel industry will pay the fee or purchase the permits and continue to pollute in overburdened communities while passing on the increased costs to the consumer. Therefore an equitable carbon pricing regimen must include investments in overburdened communities and energy subsidies to low income households.

How Does it Work in Washington?

In 2021, Washington's Climate Commitment Act, a statewide cap-and-invest program was passed in the state legislature to address both the indirect and direct effects of climate change on health. Its guidelines ensure that money earned is re-invested in Washington state, particularly in marginalized communities. Businesses are required to obtain allowances equal to their greenhouse gas emissions through quarterly auctions hosted by the Department of Ecology, or bought and sold on a secondary market. Emissions caps are projected to decrease by 45% by 2030, 70% by 2040, and 95% by 2050.

The Department of Ecology must report annual expenditures to the Legislature. These reports must state the agency recipient (of which there are 35), dollar amount, purpose of funding, verifiable reductions in GHG emissions, and cost per metric ton of carbon dioxide equivalent in reduced GHG emissions.(2)

Funds raised from these auctions are directed to various accounts in Washington:

- **Carbon Emissions Reduction Account**, which reduces emissions from the transportation sector and increases access to public and alternative transportation.
- **Climate Investment Account**, which promotes clean energy, ecosystem resilience, and carbon sequestration.
- **Air Quality and Health Disparities Improvement Account**, to reduce pollutants and health disparities.

In the case of the Climate Commitment Act there are specific programs that combat the negative health impacts of climate change. Of monies spent, 35-40% must benefit vulnerable populations in overburdened communities; 10% must be formally supported by Tribal resolution. (3)

Thus far, most funding has gone to clean transportation projects: to purchase electric school buses, to provide free public transit for youth, air quality monitoring, and electric vehicle chargers. The Office of Financial Management estimates that, of total CCA investments, nearly $924 million, or 43%, are directed to overburdened communities. Nearly $155 million, or 7.3% of CCA funds, are directed specifically to benefit Tribes. (4)

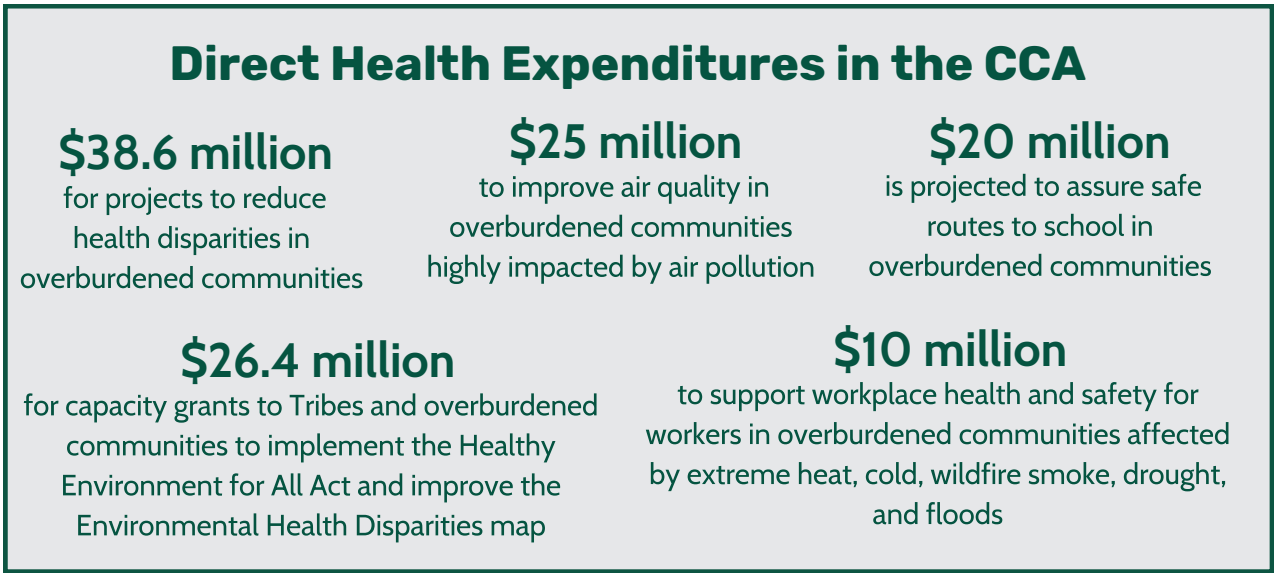


Figure 1. *While the dollar amounts may vary from year to year based on the price at auction, the minimum percentage of revenue allocated to overburdened communities and to Tribes is fixed. (4)*

Initiative 2117 proposes to repeal the Climate Commitment Act and eliminate all of its programs. Furthermore, it would prohibit state agencies from imposing any type of carbon tax or credit trading, including "cap and trade" or "cap and tax" programs, regardless of whether resulting increased costs are imposed on fuel recipients or fuel suppliers. Funding for the projects described above would be lost if I-2117 is approved by voters.

Addressing our Climate and our Health

The CCA, which I-2117 aims to repeal, is a comprehensive and specifically-targeted program which directly works to mitigate many of the effects of climate change and air pollution in our state. In turn, it has the effect of improving the health of all Washingtonians by improving air quality, decreasing the production of harmful greenhouse gases, lessening the health burdens imposed on all of us by pollution and climate-related events, and creating programs which will directly protect the health of people throughout the state. I-2117 threatens all of these benefits, and it will have a negative effect on the health of everyone in Washington.

Cumulative climate-related risks endanger health in two ways. They increase the seriousness and/or frequency of existing health problems, and they create new or unanticipated health problems. (5)

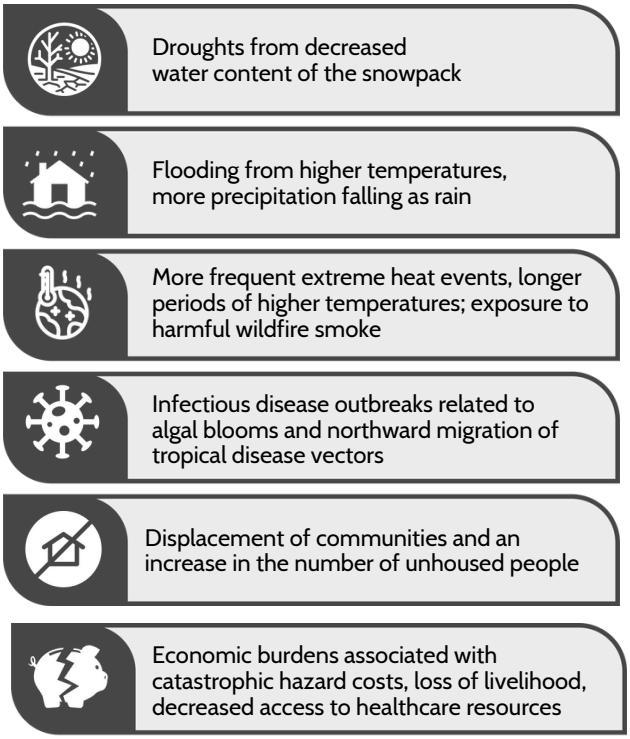
Climate change and air pollution increase the risk for the following health conditions:

- Heat Related illnesses
- Respiratory illnesses, such as asthma and lung cancer
- Cardiovascular disease, including heart attack and stroke
- Infectious diseases such as Lyme and encephalitis
- Mental health conditions, including increased depression and suicidality
- Violent behavior, including intimate partner violence

Health-Related Impacts of Extreme Weather in Washington

The health effects of climate change are becoming increasingly well-understood as our planet experiences a continued rise in average temperatures year after year. In Washington, the environmental changes include a decrease in the annual number of freezing days since 1990, earlier melting of the snowpack in the Cascade Mountain Range, and an increase in the number and severity of wildfires. (6)

These changes in our environment put increasing burdens on the health of people throughout the state as they lead to extreme weather-related events. Extreme heat events are particularly harmful to the elderly, those with pre-existing conditions, low income households without access to air conditioning, and the unhoused population. (7)



Health-Related Impacts of Air Quality and Pollution

Gasoline and diesel fuel combustion is the primary source of greenhouse gases in our state, and the number one contributor to both climate change and pollutants such as PM 2.5 small particulate matter, sulfur dioxide and nitrogen dioxide. (7) The World Health Organization (WHO) states, "Air pollution, primarily the result of burning fossil fuels, which also drives climate change, causes 13 deaths per minute worldwide." (6)

A study by Brauer, et al. in 2012 found, "The combustion of fossil fuels causes large environmental, health, and economic damage and is a major contributor to air pollution, which kills seven million people every year." (7) This WA Department of Ecology map shows areas of local concern.

Major health-related impacts from air pollution are:

- Increased morbidity (illness) and mortality (death) from:
  - Increased respiratory illnesses such as asthma
  - Cardiovascular disease and stroke.
  - Cancer
  - Diabetes
- Mental health events, as PM 2.5 can enter the brain via the olfactory nerve or bloodstream

> ***"Air pollution, primarily the result of burning fossil fuels, which also drives climate change, causes 13 deaths per minute worldwide."***
>
> *- World Health Organization*

Initiative 2117: A Health Threat to Washington's Most in Need

Initiative 2117 threatens the very foundation of Washington's efforts to protect its most overburdened from the health impacts of climate change. This section explores how the Climate Commitment Act (CCA) has significantly enhanced air quality, reduced greenhouse gas emissions, and fostered equitable health outcomes across the state. By repealing the CCA, Initiative 2117 jeopardizes these critical advancements, posing a direct threat to the health and well-being of Washington's communities, particularly those already facing economic and environmental disparities.

Pediatric Health

The CCA represents immense progress towards a healthier environment and population. In particular, CCA programs improve outdoor and indoor air quality, offer significant positive health outcomes for children through expanded access to transportation, indoor and outdoor air quality improvements, mental health among Washington's youth, and action to improve urban forestry and mitigate the impacts of extreme heat.

Sections of the CCA fund free bus, ferry, and train rides for children and expand sidewalks and crosswalks so that children can safely access the outdoor environment.

Families across the state benefit from having a safe and reliable way to get kids to and from school, parks, and activities. Research shows that free public transportation fosters self-sustainability, promotes independence, and permits spending on other household essentials. (8) Improved mental health is another benefit; studies have reliably shown a clear correlation between increases in outdoor play and subjective well-being. (21)

There is also a demonstrated increase in physical activity and improved metabolic factors in children and parents who have readily accessible green spaces. (12, 13)

This is critical at a time when Washington youth are experiencing an unprecedented mental health crisis. Data from Washington state shows a 33.6% increase in children diagnosed with anxiety and depression in between 2016 and 2020. (10) Increased access to the outdoors provides well-studied health benefits for children and teens.

Pediatric Health

Programs within the CCA improve the air that the children of Washington state breath. Children with developing lungs are particularly vulnerable to air pollution, and can experience lifelong effects from inhaled particulates, such as asthma and cancer. Inhaled pollution can even limit healthy growth, leading to lifelong respiratory conditions. (14) In the home, CCA funded programs such as an expansion of weatherization projects improve indoor air quality by replacing gas stoves and upgrading heating. (15)

On the way to school, studies show that diesel-emitting school buses decrease cognitive function, increase cardiovascular risks, and worsen respiratory health. (9)

The CCA: Protecting Children's Health

OUTCOME	CCA PROGRAM
Improved educational attainment	• HVAC improvements in schools • Reduced diesel emissions on school buses
Higher physical activity levels; better metabolic health	• Safe sidewalks and crosswalks • Improved urban tree canopy
Improved mental health, reduced diagnoses of anxiety and depression	• Free public transportation for youth • Indoor air quality improvements • Climate Plus grants for schools
Reduced infant mortality, reduced risks of decreasing cognitive ability	• Expansion of state weatherization program • Energy efficiency upgrades

The CCA is funding electric school buses to minimize these risks. Yet more programs work to decrease the outdoor particulates caused by wildfires, landfill emissions, and industry- all of which emit pollution that is most dangerous to Washington's youngest residents.

Washington state has also become more dangerous to children of all ages due to extreme heat events, which are actively combatted by programs within the CCA. The carbon emission reductions projects funded by the CCA will help to reduce extreme weather events worldwide. These interventions are critical, as we know that even unborn babies can experience the negative health impacts of extreme heat. Increased young child and infant mortality have also also been associated with extreme heat events, as well as decreased cognitive abilities in children exposed to high heat. (11) The climate resilience projects for schools such as HVAC improvements and electrification will help keep the children of Washington state learning and growing through extreme heat.

Image by ededchechine on Freepik

Climate Change does not Impact all People Equally

The health conditions exacerbated by climate change and air pollution are experienced more frequently and with greater impact by children, pregnant women, the poor, and the elderly, as well as other disenfranchised populations, who are often made more vulnerable to the changing climate due to discriminatory public policy and ongoing bias. The combined effects of race, income, and language barriers on vulnerable groups can increase health risks due to increased exposure, loss of protection and response resources in times of crisis, poor access to emergency services and healthcare, and less political power to effect protection and change due to financial and social barriers. (17) The Washington Health Disparities map shows this unequal distribution.

Image courtesy of Unsplash

The health care system is not immune to bias and has often perpetrated these inequities. Disadvantaged groups include:

- Economically disadvantaged communities
- Ethnic minorities
- Migrant workers
- People with limited English proficiency
- Displaced persons
- Indigenous tribes
- Older populations
- Workers in environmentally destructive impactful industries and high-exposure environments
- Those with pre-existing medical conditions, chronic illness, and disabilities

Many overburdened communities are in locations with a high risk of climate-related health hazards, including flooding, extreme heat, and air pollution.

Due to the long-term policies of “redlining” and zoning laws, poorer communities, tribal communities, and communities of color are less likely to have adequate infrastructure and tree canopy to help mitigate the effects of extreme heat. They are far more likely to be located in close proximity to the sources of pollution, such as industrial sites, oil and gas refineries, ports, rail yards, busy highways, and other sources of climate-related pollutants. For example, fossil fuel plants in Washington have traditionally been located in rural areas.

> ***[The CCA] will directly improve the health of vulnerable groups in the state by minimizing their exposure risks over time, helping to realize the imperative of the WHO to "ensure a pollution-free and productive environment for current and future generations.***

The CCA is designed specifically to place environmental justice and equity at the center of climate policy. It implements and funds the HEAL (Healthy Environment for All) Act of 2021 that "requires Ecology and the state departments of Agriculture, Commerce, Health, Natural Resources, Transportation, and the Puget Sound Partnership to identify and address environmental health disparities in overburdened communities and for vulnerable populations." The CCA recognizes the numerous inequities that the health effects of climate change and its causes place on vulnerable Washington communities. The CCA directs the funds generated by pricing fossil fuel production and use toward those communities to help them better face the health burdens created by climate change, burdens which those vulnerable communities disproportionately bear. 35% of those funds are directed toward overburdened communities, and a minimum of 10% are directed toward projects with Tribal approval.

The CCA accomplishes this focus on health equity while at the same time using a progressive incentive program to shift the greatest producers and users of fossil fuels in our state increasingly toward the production and use of clean energy. This environmental improvement will impact the health of all Washingtonians, by increasing the use of electric and low-emission vehicles, producing cleaner air, and reducing premature deaths from air pollution, with an estimated cost savings due to health benefits of $250 billion/year. (18) And it will directly improve the health of vulnerable groups in the state by minimizing their exposure risks over time, helping to realize the imperative of the WHO to "ensure a pollution-free and productive environment for current and future generations." (19) I-2117 threatens to undermine those goals and to undo all of the health benefits the CCA is designed to promote.

Tribal Populations

Indigenous populations have historically had higher rates of underlying medical conditions. Many of these conditions can be linked to the effects of fossil fuel use, including asthma and heart disease. The increased incidence of underlying medical conditions makes the risk of injury and death from the effects of climate change and air pollution greater. Indigenous populations typically rely heavily on the natural environment for their livelihood, food sources, and cultural practices. Degradation of the environment from climate change, including drought and flood, loss of reliable clean water sources in rivers and streams, tidal flooding and sea level change can all affect these resources, leading to substantial health effects in indigenous populations. (20)

Image courtesy of Our Salish Sea

WASHINGTON PHYSICIANS FOR SOCIAL RESPONSIBILITY

Our Prescription: Vote No on Initiative 2117

Climate change and air pollution have far-reaching consequences to the health of the residents of Washington and in fact to every living being on our planet. With the Climate Commitment Act, the state made the forward-thinking decision to combat climate change and its devastating health impacts. It accomplishes this by shifting the economic costs of pollution onto major carbon emitters. Our state will then utilize this funding to directly benefit everyone who lives and works in Washington state. In particular, we have outlined how children and those who have been historically disadvantaged by discriminatory policies and redlining will benefit from the CCA.

Healthcare professionals see firsthand the debilitating effects of pollution-related diseases, such as asthma and cardiovascular conditions, that disproportionately affect vulnerable populations. Voting no is a health decision because it ensures the continuation of vital funding to combat these health crises and supports initiatives that lead to cleaner air and healthier communities.

As clinicians and health professionals concerned with the adverse health impacts of our changing climate, we urge all Washingtonians to vote NO on I-2117.Our future depends on it.

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