Recognizing that nurses are at the forefront of health care touchpoints, the National Association of Nurse Practitioners in Women’s Health (NPWH) and the Alliance of Nurses for Healthy Environments (ANHE) welcome you to this effort centered on addressing the environmental factors contributing to compromised, disparate women’ and maternal child health outcomes. Our vision is that this Collaborative will leverage their collective knowledge to:

- Identify key environmental issues affecting women’s and maternal-child health outcomes;
- Ascertain gaps in knowledge regarding the environmental factors affecting women’s and maternal-child health outcomes.
- Consider curricular components necessary to fill knowledge gaps for nurses and patients.
- Identify policy solutions to facilitate increased attention, resources, and support for environmental health interventions to improve women’s and maternal-child health outcomes.
- Create a prioritized action plan and timeline for execution.

It is our hope that this collective effort will significantly contribute to eliminating disparities in maternal child health and improving the overall health status of women and children.
Agenda

1:00 pm  Welcome and Introductions
Katie Huffling, RN, MS, CNM, FAAN
Executive Director
Alliance of Nurses for Healthy Environments

Heather Maurer, MA
Chief Executive Officer
National Association of Nurse Practitioners in Women’s Health

1:20 pm  Setting the Stage: An Overview of Environmental Implications for Maternal-Child and Women’s Health
Sandy Worthington, MSN, WHNP, CNM
ANHE Board of Directors

1:40 pm  The Intersection of Environmental Health and Black Maternal Health: Policy Implications
Jack DiMatteo
Legislative Assistant, Office of Rep. Lauren Underwood (IL-14)

2:00 pm  Break

2:05 pm  Small Group Discussions
(Participants will be separated into two groups for a facilitated discussion on the identified topic)

Group 1: Advocacy and Research
Facilitators: Cara Cook, MS, RN, AHN-BC and Susan Kendig, JD, MSN, WHNP-BC, FAANP

Group 2: Education and Practice
Facilitators: Katie Huffling, RN, MS, CNM, FAAN and Heather Maurer, MA

2:35 pm  Group Report and Next Steps
Facilitator: Cara Cook, MS, RN, AHN-BC

2:55 pm  Conclusion
Heather Maurer, MA
Chief Executive Officer
National Association of Nurse Practitioners in Women’s Health
About NPWH

The National Association of Nurse Practitioners in Women’s Health (NPWH) is a nonprofit, professional membership association representing more than 8,000 Women’s Health Nurse Practitioners (WHNPs). Advanced practice registered nurses and other healthcare providers rely on NPWH for resources and education that improve women’s health and wellness through evidence-based practice. NPWH pioneers policies to address gender disparities and forges strategic partnerships that advance health equity and holistic models of care. For more information, visit www.npwh.org

Contacts:

Heather Maurer: hmaurer@npwh.org

Susan Kendig: SKendig@npwh.org

About ANHE

The Alliance of Nurses for Healthy Environments is the only national nursing organization focused solely on the intersection of health and the environment. The mission of the Alliance is to promote healthy people and healthy environments by educating and leading the nursing profession, advancing research, incorporating evidence-based practice, and influencing policy.

Contacts:

Katie Huffling: katie@envirn.org

Cara Cook: cara@envirn.org
Nursing Collaborative on Environment and Maternal-Child and Women’s Health
Invited Organizations

<table>
<thead>
<tr>
<th>Organization Representing</th>
<th>Name</th>
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<tbody>
<tr>
<td>American College of Nurse Midwives</td>
<td>Amy Kohl</td>
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<tr>
<td>American College of Nurse Midwives</td>
<td>Katrina Holland, BA, CAE</td>
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<tr>
<td>ANHE</td>
<td>Cara Cook, MS, RN, AHN-BC</td>
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<tr>
<td>ANHE</td>
<td>Katie Huffling, RN, MS, CNM, FAAN</td>
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<tr>
<td>Association of Women’s Health, Obstetric and Neonatal Nurses</td>
<td>Karen Crowley, DNP, APRN-BC, WHNP, ANP</td>
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<tr>
<td>Association of Women’s Health, Obstetric and Neonatal Nurses</td>
<td>Kathleen Hale, MS, RN, NE-BC</td>
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<td>National Alaska Native American Indian Nurses Association</td>
<td>Sandy Littlejohn, BSN, MA</td>
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<td>National Association of Hispanic Nurses (NAHN)</td>
<td>Dr. Maria Perez PhD, RNC-OB, LHRM, CHEP, HC</td>
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<td>National Association of Neonatal Nurses</td>
<td>Gail Bagwell, DNP, APRN, CNS</td>
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<td>National Association of Neonatal Nurses</td>
<td>Bobby Bellflower</td>
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<td>National Association of Pediatric Nurse Practitioners</td>
<td>Cathy S. Woodward, DNP, APRN, CPNP-AC</td>
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<td>National Association of Pediatric Nurse Practitioners</td>
<td>James Wendorf</td>
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<td>National Association of School Nurses</td>
<td>Kathy L. Reiner, MPH, BA, BSN, RN</td>
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<td>National Association of School Nurses</td>
<td>Donna Mazyck, MS, RN, NCSN, CAE, FNASN</td>
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<td>National Association of Neonatal Nurses (NANN)</td>
<td>Dionne Wilson, CAE</td>
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<td>National Association of Neonatal Nurses (NANN)</td>
<td>Tommie Farrell, BSN, RN-NIC</td>
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<td>National Black Nurses Association (NBNA)</td>
<td>Martha Dawson, DNP, RN, FACHE</td>
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<td>National Black Nurses Association (NBNA)</td>
<td>Millicent Gorham, PhD (Hon), MBA, FAAN</td>
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<td>National Certification Corporation</td>
<td>Robin Bissinger, PhD, APRN, NNP-BC, FAAN</td>
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<td>National Certification Corporation</td>
<td>Jacki Witt, JD, MSN, WHNP-BC, FAANP</td>
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<td>National Organization of Nurse Practitioner Faculties</td>
<td>Mary Beth Bigley, DrPH, MSN, APRN, FAAN</td>
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<td>NPWH</td>
<td>Susan Kendig, JD, MSN, WHNP-BC, FAANP</td>
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<td>Organization</td>
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<td>NPWH</td>
<td>Donna Ruth, RN, MSN, NPD-BC</td>
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<td>NPWH</td>
<td>Beth Kelsey, EdD, APRN, WHNP-BC, FAANP</td>
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<td>Philippine Nurses Association of America</td>
<td>Riza Mauricio, RN, PNP</td>
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<td>Philippine Nurses Association of America</td>
<td>Mary Joy Garcia-Dia, DNP, RN, FAAN</td>
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<td>Region III and Pediatric and Environmental Health Specialty Unit (Villanova University) Nurse Run</td>
<td>Laura Anderko</td>
</tr>
<tr>
<td>Region III and Pediatric and Environmental Health Specialty Unit (Villanova University) Nurse Run</td>
<td>Ruth McDermott Levy, PhD, MPH, RN, FAAN</td>
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How our Environment Affects Human Health

A Nursing Coalition Call to Action

Sandy Worthington, MSN, RN, WHNP
Objectives

- Describe Environmental Justice and Determinants if Health

- Identify vulnerable populations that are at risk when exposed to toxicants and climate change.

- Describe toxic substances in our environments that can affect our health.

- Address where and how environmental exposures occur in our communities, homes, workplaces, personal care products.

- State the effects Climate Change has on human health.

- Explore where and how nurses can be leaders in influencing environmental health issues.
All humans have the right to healthy and safe environments including:

- a stable climate
- healthy living and working conditions
- clean air and water
- safe food and agricultural practices
- products that are free from harmful chemicals
Environmental Justice
Fair treatment for all

Religion

Neighborhoods

Racial and Ethnic Groups

Cultural Implications

Language

Migrants and Refugees

Disabled and Special Needs
**Determinants of Health**

- **Income and social status** - higher income and social status are linked to better health.

- **Education** - low education levels are linked with poor health, more stress and lower self-confidence.

- **Physical environment** - safe water and clean air, healthy workplaces, safe houses, communities and roads all contribute to good health. Employment and working conditions - people in employment are healthier, particularly those who have more control over their working conditions.

- **Social support networks** - greater support from families, friends and communities is linked to better health. Culture - customs and traditions, and the beliefs of the family and community all affect health.

- **Genetics** - inheritance plays a part in determining lifespan, healthiness and the likelihood of developing certain illnesses. Personal behavior and coping skills - balanced eating, keeping active, smoking, drinking, and how we deal with life’s stresses and challenges all affect health.

- **Health services** - access and use of services that prevent and treat disease influences health.

- **Gender** - Men and women suffer from different types of diseases at different ages.
US Maternal Mortality Rates - Highest in Affluent Countries

Maternal Death Rates per 100,000 live Births

- 1987 - 7.2 deaths
- 2018 - 17.4 deaths

Current % by race

- Women of Color: 42.0
- Indigenous: 30.4
- Asian: 14.1
- White: 13.0
Over 80,000 chemicals are registered with the EPA

The air we breath

Water we drink and use

The food we grow and eat

Products we put on our skin
Environmental Exposures Lead to Disease Throughout Life
Environmental Exposures affects us throughout our life. Pregnant women, fetuses, infants, and children are especially vulnerable.

Contaminated food

Pesticides & Cleaners

Chemicals in electronics

Contaminated drinking water

Agricultural chemicals

Synthetic materials

Byproducts of combustion

Cosmetics

Prescription drugs
# Examples of Chemical Exposures and Health Outcomes

<table>
<thead>
<tr>
<th>Chemical Exposure</th>
<th>Adverse Health Outcome</th>
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<tbody>
<tr>
<td>Vinyl chloride</td>
<td>Liver cancer Cardiovascular disease</td>
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<tr>
<td>Benzene</td>
<td>Leukemia Aplastic anemia Neutropenia</td>
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<tr>
<td>Benzidine (various chemical formulas)</td>
<td>Bladder cancer</td>
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<tr>
<td>Copper sulphate</td>
<td>Anemia and blood disorders</td>
</tr>
<tr>
<td>Plastics</td>
<td>Neurological effects</td>
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<tr>
<td>Asbestos</td>
<td>Asbestosis Lung cancer Mesothelioma</td>
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<tr>
<td>Particulate matter</td>
<td>Asthma Cardiovascular disease Pulmonary disease Lung cancer</td>
</tr>
<tr>
<td>Sulphur dioxide</td>
<td>Asthma</td>
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<tr>
<td>Environmental Tobacco Smoke</td>
<td>Cardiovascular effects Pulmonary disease Asthma</td>
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<tr>
<td>Carbon Monoxide</td>
<td>Cardiovascular disease including angina</td>
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<tr>
<td>Solvents</td>
<td>Arrhythmias Liver damage</td>
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<tr>
<td>Cotton fibers</td>
<td>Byssinosis</td>
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<tr>
<td>Dust from cement; sandblasting; ceramics</td>
<td>Pneumoconiosis Bronchitis</td>
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<tr>
<td>Pesticides</td>
<td>Skin cancer</td>
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Endocrine Disrupting Compounds are Linked with developmental, reproductive, brain, immune and other problems

Common disruptors

- Bisphenol A
- Dioxins
- Perchlorates
- Polyfluoroalkyl Substances (PFAS)
- Phthalates
- Phytoestrogens
- Polybrominated diphenyl ethers
- Polychlorinated biphenyls
- Triclosan

Examples of products

- Plastic products
- Epoxy resins
- Waste burning
- Non-stick pans
- Textile coatings
- Soy products
- Flame retardants
- Anti-micobials
- Personal care products
Looking at where exposures occur in our environments.

Air Quality

Pollution contributes especially to Respiratory, Cardiovascular, and Cancer Diseases

Examples of Greenhouse Gas Emissions

- Carbon Dioxide
- Methane
- Nitrous oxide

Caused by:

- Burning fossil fuels
- Livestock feces
- Landfills
- Producing and transporting natural gas.
- Mining coal
- Fertilizers
- Some industrial and manufacturing processes
Community

Recreational areas

Factories

Farms

Landfills

Hazardous substance spills

Businesses
Home/Hobbies

- Pesticides: home, garden
- Glues, adhesives
- Cleaning products
- Flame retardants
- Exposures during home renovation
- Carbon monoxide
- Radon
- Cigarette smoke

more…
Occupation/School

- Chemicals
- Radiation
- Biological agents
- Pesticides in schools
- Building materials
- Waste Management
- Ventilation
Personal Care

- Diet
- Alcohol
- Tobacco use
- Prescription & non-prescription medications
- Substance abuse
- Insect repellants
- Sunscreen
- Cosmetics; personal care products
- Personal hygiene products
Climate Change Events

- Rise in average temperature
- More extreme temperatures
- Increased droughts and water scarcity
- More frequent wildfires
- Increase in precipitation and flooding
- Stronger hurricanes and storm surges
- Sea level rise
- Ocean acidification
Impact of Climate Change on Human Health

- Injuries, fatalities, mental health impacts
- Asthma, cardiovascular disease
- Heat-related illness and death, cardiovascular failure
- Malaria, dengue, encephalitis, hantavirus, Rift Valley fever, Lyme disease, chikungunya, West Nile virus
- Forced migration, civil conflict, mental health impacts
- Respiratory allergies, asthma
- Malnutrition, diarrheal disease
- Cholera, cryptosporidiosis, campylobacter, leptospirosis, harmful algal blooms
- Extreme heat
- Air pollution
- Extreme weather
- Changes in vector ecology
- RISING TEMPERATURES
- MORE EXTREME WEATHER
- INCREASING CO2 LEVELS
- INCREASING ALLERGENS
- WATER AND FOOD SUPPLY IMPACTS
- WATER QUALITY IMPACTS
Nurses Step Up to the Plate to Address Environmental Health Issues

- Clinicians Screening for Clients at Risk
- Client Educators
- Green Team Leaders
- Community Activists
- Academic Researchers
- Academic Educators
- Policy and Regulation Advocacy Activists
- Key Opinion Leaders - Editorials/Op Ed Articles, Press Releases
TOP TEN REASONS THAT NURSES & ENVIRONMENTAL HEALTH GO TOGETHER

- 1. We provide healing and safe environments for people.
- 2. We are a trusted source of information.
- 3. We are the largest healthcare occupation.
- 4. We work with people from a variety of cultures.
- 5. We effect decisions in their own homes, work settings, and communities.
- 6. We are good sources of information for policy makers.
- 7. We translate scientific health literature to make it understandable.
- 8. We have advanced degrees are engaged in research about the environment and health.
- 9. Health organizations recognize nurses’ roles in environmental health.
- 10. The education and standards of nursing practice require that we know how to reduce exposures to environmental health hazards.
Environmental Health in Nursing

Editors:
Jeanne Lefler, PhD, RN, FAAN
Claude M. Smith, PhD, MPH, RN-BC
Katie Huffing, RN, MS, CNM
Ruth McDermott-Levy, PhD, MPH, RN
Barbara Sattler, DrPH, RN, FAAN
References

BACKGROUND

Recent research assessing more than 32 million births in the United States found that “exacerbation of air pollution and heat exposure related to climate change may be significantly associated with risk to pregnancy outcomes in the US” and the “subpopulations at highest risk were persons with asthma and minority groups, especially [Black] mothers.”¹ The Protecting Moms and Babies Against Climate Change Act will address these climate change-related risks, making robust investments in initiatives to reduce levels of and exposure to extreme heat, air pollution, and other environmental threats to pregnant and postpartum people and their infants.

BILL SUMMARY

The Protecting Moms and Babies Against Climate Change Act will:

1. **Invest in community-based programs to identify climate change-related risks for pregnant and postpartum people and their infants, provide supports to those patients, and mitigate levels of and exposure to those risks**, particularly in communities of color. This funding supports initiatives such as:
   - Providing **training to health care providers** to be able to identify climate change-related risks for patients;
   - Supporting **doulas, community health workers, and other perinatal health workers** who can identify climate change-related risks and support patients;
   - Providing patients with air **conditioning units, appliances, filtration systems, weatherization support, and direct financial assistance**;
   - Providing support, including housing and transportation assistance, for patients who face the risk of **extreme weather events** like hurricanes, wildfires, and droughts;
   - Promoting **community forestry initiatives** and tree canopy covers;
   - Improving **infrastructure and blacktop surfaces**; and
   - Improving **monitoring systems and data sharing** for climate change-related risks.

2. **Provide funding to health professional schools** to prepare future nurses, doctors, and other health care workers to address climate change-related risks for patients.

3. **Establish an NIH consortium to advance research on climate change and maternal & infant health.**

4. **Design a program to identify and designate climate change risk zones** for pregnant and postpartum people and their babies.

CONTACT

For more information, contact Jack DiMatteo in Rep. Underwood’s office at Jack.DiMatteo@mail.house.gov.

¹ [https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2767260](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2767260)
117TH CONGRESS
1ST SESSION

H. R. ______

To direct the Secretary of Health and Human Services to establish a grant program to protect vulnerable mothers and babies from climate change risks, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Ms. UNDERWOOD introduced the following bill; which was referred to the Committee on ____________________________

A BILL

To direct the Secretary of Health and Human Services to establish a grant program to protect vulnerable mothers and babies from climate change risks, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) Short Title.—This Act may be cited as the “Protecting Moms and Babies Against Climate Change Act”.
(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.
Sec. 2. Grant program to protect vulnerable mothers and babies from climate change risks.
Sec. 3. Grant program for education and training at health profession schools.
Sec. 4. NIH Consortium on Birth and Climate Change Research.
Sec. 5. Strategy for identifying climate change risk zones for vulnerable mothers and babies.
Sec. 6. Definitions.

SEC. 2. GRANT PROGRAM TO PROTECT VULNERABLE MOTHERS AND BABIES FROM CLIMATE CHANGE RISKS.

(a) IN GENERAL.—Not later than 180 days after the date of the enactment of this Act, the Secretary of Health and Human Services shall establish a grant program (in this section referred to as the “Program”) to protect vulnerable individuals from risks associated with climate change.

(b) GRANT AUTHORITY.—In carrying out the Program, the Secretary may award, on a competitive basis, grants to 10 covered entities.

(c) APPLICATIONS.—To be eligible for a grant under the Program, a covered entity shall submit to the Secretary an application at such time, in such form, and containing such information as the Secretary may require, which shall include, at a minimum, a description of the following:
(1) Plans for the use of grant funds awarded under the Program and how patients and stake-
holder organizations were involved in the develop-
ment of such plans.

(2) How such grant funds will be targeted to geographic areas that have disproportionately high levels of risks associated with climate change for vul-
nerable individuals.

(3) How such grant funds will be used to ad-
dress racial and ethnic disparities in—

(A) adverse maternal and infant health outcomes; and

(B) exposure to risks associated with cli-
mate change for vulnerable individuals.

(4) Strategies to prevent an initiative assisted with such grant funds from causing—

(A) adverse environmental impacts;

(B) displacement of residents and busi-
nesses;

(C) rent and housing price increases; or

(D) disproportionate adverse impacts on racial and ethnic minority groups and other un-
derserved populations.

(d) SELECTION OF GRANT RECIPIENTS.—
(1) TIMING.—Not later than 270 days after the date of the enactment of this Act, the Secretary shall select the recipients of grants under the Program.

(2) CONSULTATION.—In selecting covered entities for grants under the Program, the Secretary shall consult with—

(A) representatives of stakeholder organizations;

(B) the Administrator of the Environmental Protection Agency;

(C) the Administrator of the National Oceanic and Atmospheric Administration; and

(D) from the Department of Health and Human Services—

(i) the Deputy Assistant Secretary for Minority Health;

(ii) the Administrator of the Centers for Medicare & Medicaid Services;

(iii) the Administrator of the Health Resources and Services Administration;

(iv) the Director of the National Institutes of Health; and

(v) the Director of the Centers for Disease Control and Prevention.
(3) PRIORITY.—In selecting a covered entity to be awarded a grant under the Program, the Secretary shall give priority to covered entities that serve a county—

(A) designated, or located in an area designated, as a nonattainment area pursuant to section 107 of the Clean Air Act (42 U.S.C. 7407) for any air pollutant for which air quality criteria have been issued under section 108(a) of such Act (42 U.S.C. 7408(a));

(B) with a level of vulnerability of moderate-to-high or higher, according to the Social Vulnerability Index of the Centers for Disease Control and Prevention; or

(C) with temperatures that pose a risk to human health, as determined by the Secretary, in consultation with the Administrator of the National Oceanic and Atmospheric Administration and the Chair of the United States Global Change Research Program, based on the best available science.

(4) LIMITATION.—A recipient of grant funds under the Program may not use such grant funds to serve a county that is served by any other recipient of a grant under the Program.
(e) USE OF FUNDS.—A covered entity awarded grant funds under the Program may only use such grant funds for the following:

(1) Initiatives to identify risks associated with climate change for vulnerable individuals and to provide services and support to such individuals that address such risks, which may include—

(A) training for health care providers, doulas, and other employees in hospitals, birth centers, midwifery practices, and other health care practices that provide prenatal or labor and delivery services to vulnerable individuals on the identification of, and patient counseling relating to, risks associated with climate change for vulnerable individuals;

(B) hiring, training, or providing resources to community health workers and perinatal health workers who can help identify risks associated with climate change for vulnerable individuals, provide patient counseling about such risks, and carry out the distribution of relevant services and support;

(C) enhancing the monitoring of risks associated with climate change for vulnerable individuals, including by—
(i) collecting data on such risks in specific census tracts, neighborhoods, or other geographic areas; and

(ii) sharing such data with local health care providers, doulas, and other employees in hospitals, birth centers, mid- wifery practices, and other health care practices that provide prenatal or labor and delivery services to local vulnerable individuals; and

(D) providing vulnerable individuals—

(i) air conditioning units, residential weatherization support, filtration systems, household appliances, or related items;

(ii) direct financial assistance; and

(iii) services and support, including housing and transportation assistance, to prepare for or recover from extreme weather events, which may include floods, hurricanes, wildfires, droughts, and related events.

(2) Initiatives to mitigate levels of and exposure to risks associated with climate change for vulnerable individuals, which shall be based on the best
available science and which may include initiatives to—

(A) develop, maintain, or expand urban or community forestry initiatives and tree canopy coverage initiatives;

(B) improve infrastructure, including buildings and paved surfaces;

(C) develop or improve community outreach networks to provide culturally and linguistically appropriate information and notifications about risks associated with climate change for vulnerable individuals; and

(D) provide enhanced services to racial and ethnic minority groups and other underserved populations.

(f) LENGTH OF AWARD.—A grant under this section shall be disbursed over 4 fiscal years.

(g) TECHNICAL ASSISTANCE.—The Secretary shall provide technical assistance to a covered entity awarded a grant under the Program to support the development, implementation, and evaluation of activities funded with such grant.

(h) REPORTS TO SECRETARY.—

(1) ANNUAL REPORT.—For each fiscal year during which a covered entity is disbursed grant
funds under the Program, such covered entity shall submit to the Secretary a report that summarizes the activities carried out by such covered entity with such grant funds during such fiscal year, which shall include a description of the following:

(A) The involvement of stakeholder organizations in the implementation of initiatives assisted with such grant funds.

(B) Relevant health and environmental data, disaggregated, to the extent practicable, by race, ethnicity, gender, and pregnancy status.

(C) Qualitative feedback received from vulnerable individuals with respect to initiatives assisted with such grant funds.

(D) Criteria used in selecting the geographic areas assisted with such grant funds.

(E) Efforts to address racial and ethnic disparities in adverse maternal and infant health outcomes and in exposure to risks associated with climate change for vulnerable individuals.

(F) Any negative and unintended impacts of initiatives assisted with such grant funds, including—
(i) adverse environmental impacts;
(ii) displacement of residents and businesses;
(iii) rent and housing price increases; and
(iv) disproportionate adverse impacts on racial and ethnic minority groups and other underserved populations.

(G) How the covered entity will address and prevent any impacts described in subparagraph (F).

(2) PUBLICATION.—Not later than 30 days after the date on which a report is submitted under paragraph (1), the Secretary shall publish such report on a public website of the Department of Health and Human Services.

(i) REPORT TO CONGRESS.—Not later than the date that is 5 years after the date on which the Program is established, the Secretary shall submit to Congress and publish on a public website of the Department of Health and Human Services a report on the results of the Program, including the following:

(1) Summaries of the annual reports submitted under subsection (h).
(2) Evaluations of the initiatives assisted with
grant funds under the Program.

(3) An assessment of the effectiveness of the
Program in—

(A) identifying risks associated with cli-
mate change for vulnerable individuals;

(B) providing services and support to such
individuals;

(C) mitigating levels of and exposure to
such risks; and

(D) addressing racial and ethnic disparities
in adverse maternal and infant health outcomes
and in exposure to such risks.

(4) A description of how the Program could be
expanded, including—

(A) monitoring efforts or data collection
that would be required to identify areas with
high levels of risks associated with climate
change for vulnerable individuals;

(B) how such areas could be identified
using the strategy developed under section 5;

and

(C) recommendations for additional fund-
ing.
(j) COVERED ENTITY DEFINED.—In this section, the term “covered entity” means a consortium of organizations serving a county that—

(1) shall include a community-based organization; and

(2) may include—

(A) another stakeholder organization;

(B) the government of such county;

(C) the governments of one or more municipalities within such county;

(D) a State or local public health department or emergency management agency;

(E) a local health care practice, which may include a licensed and accredited hospital, birth center, midwifery practice, or other health care practice that provides prenatal or labor and delivery services to vulnerable individuals;

(F) an Indian tribe or tribal organization (as such terms are defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304));

(G) an Urban Indian organization (as defined in section 4 of the Indian Health Care Improvement Act (25 U.S.C. 1603)); and

(H) an institution of higher education.
(k) Authorization of Appropriations.—There is authorized to be appropriated to carry out this section $100,000,000 for fiscal years 2022 through 2025.

SEC. 3. GRANT PROGRAM FOR EDUCATION AND TRAINING AT HEALTH PROFESSION SCHOOLS.

(a) In General.—Not later than 1 year after the date of the enactment of this Act, the Secretary of Health and Human Services shall establish a grant program (in this section referred to as the “Program”) to provide funds to health profession schools to support the development and integration of education and training programs for identifying and addressing risks associated with climate change for vulnerable individuals.

(b) Grant Authority.—In carrying out the Program, the Secretary may award, on a competitive basis, grants to health profession schools.

(c) Application.—To be eligible for a grant under the Program, a health profession school shall submit to the Secretary an application at such time, in such form, and containing such information as the Secretary may require, which shall include, at a minimum, a description of the following:

(1) How such health profession school will engage with vulnerable individuals, and stakeholder organizations representing such individuals, in develop-
oping and implementing the education and training programs supported by grant funds awarded under the Program.

(2) How such health profession school will ensure that such education and training programs will address racial and ethnic disparities in exposure to, and the effects of, risks associated with climate change for vulnerable individuals.

(d) USE OF FUNDS.—A health profession school awarded a grant under the Program shall use the grant funds to develop, and integrate into the curriculum and continuing education of such health profession school, education and training on each of the following:

(1) Identifying risks associated with climate change for vulnerable individuals and individuals with the intent to become pregnant.

(2) How risks associated with climate change affect vulnerable individuals and individuals with the intent to become pregnant.

(3) Racial and ethnic disparities in exposure to, and the effects of, risks associated with climate change for vulnerable individuals and individuals with the intent to become pregnant.
(4) Patient counseling and mitigation strategies relating to risks associated with climate change for vulnerable individuals.

(5) Relevant services and support for vulnerable individuals relating to risks associated with climate change and strategies for ensuring vulnerable individuals have access to such services and support.

(6) Implicit and explicit bias, racism, and discrimination.

(7) Related topics identified by such health profession school based on the engagement of such health profession school with vulnerable individuals and stakeholder organizations representing such individuals.

(c) PARTNERSHIPS.—In carrying out activities with grant funds, a health profession school awarded a grant under the Program may partner with one or more of the following:

(1) A State or local public health department.

(2) A health care professional membership organization.

(3) A stakeholder organization.

(4) A health profession school.

(5) An institution of higher education.

(f) REPORTS TO SECRETARY.—
(1) **Annual report.**—For each fiscal year during which a health profession school is disbursed grant funds under the Program, such health profession school shall submit to the Secretary a report that describes the activities carried out with such grant funds during such fiscal year.

(2) **Final report.**—Not later than the date that is 1 year after the end of the last fiscal year during which a health profession school is disbursed grant funds under the Program, the health profession school shall submit to the Secretary a final report that summarizes the activities carried out with such grant funds.

(g) **Report to Congress.**—Not later than the date that is 6 years after the date on which the Program is established, the Secretary shall submit to Congress and publish on a public website of the Department of Health and Human Services a report that includes the following:

(1) A summary of the reports submitted under subsection (f).

(2) Recommendations to improve education and training programs at health profession schools with respect to identifying and addressing risks associated with climate change for vulnerable individuals.
(h) **Health Profession School Defined.**—In this section, the term “health profession school” means an accredited—

(1) medical school;

(2) school of nursing;

(3) midwifery program;

(4) physician assistant education program;

(5) teaching hospital;

(6) residency or fellowship program; or

(7) other school or program determined appropriate by the Secretary.

(i) **Authorization of Appropriations.**—There is authorized to be appropriated to carry out this section $5,000,000 for fiscal years 2022 through 2025.

**SEC. 4. NIH CONSORTIUM ON BIRTH AND CLIMATE CHANGE RESEARCH.**

(a) **Establishment.**—Not later than 1 year after the date of the enactment of this Act, the Director of the National Institutes of Health shall establish the Consortium on Birth and Climate Change Research (in this section referred to as the “Consortium”).

(b) **Duties.**—

(1) **In general.**—The Consortium shall coordinate, across the institutes, centers, and offices of the National Institutes of Health, research on the
risks associated with climate change for vulnerable individuals.

(2) REQUIRED ACTIVITIES.—In carrying out paragraph (1), the Consortium shall—

(A) establish research priorities, including by prioritizing research that—

(i) identifies the risks associated with climate change for vulnerable individuals with a particular focus on disparities in such risks among racial and ethnic minority groups and other underserved populations; and

(ii) identifies strategies to reduce levels of, and exposure to, such risks, with a particular focus on risks among racial and ethnic minority groups and other underserved populations;

(B) identify gaps in available data related to such risks;

(C) identify gaps in, and opportunities for, research collaborations;

(D) identify funding opportunities for community-based organizations and researchers from racially, ethnically, and geographically diverse backgrounds; and
(E) publish annual reports on the work and findings of the Consortium on a public website of the National Institutes of Health.

(c) MEMBERSHIP.—The Director shall appoint to the Consortium representatives of such institutes, centers, and offices of the National Institutes of Health as the Director considers appropriate, including, at a minimum, representatives of—

(1) the National Institute of Environmental Health Sciences;

(2) the National Institute on Minority Health and Health Disparities;

(3) the Eunice Kennedy Shriver National Institute of Child Health and Human Development;

(4) the National Institute of Nursing Research;

and

(5) the Office of Research on Women’s Health.

(d) CHAIRPERSON.—The Chairperson of the Consortium shall be designated by the Director and selected from among the representatives appointed under subsection (c).

(e) CONSULTATION.—In carrying out the duties described in subsection (b), the Consortium shall consult with—

(1) the heads of relevant Federal agencies, including—
(A) the Environmental Protection Agency;

(B) the National Oceanic and Atmospheric Administration;

(C) the Occupational Safety and Health Administration; and

(D) from the Department of Health and Human Services—

(i) the Office of Minority Health in the Office of the Secretary;

(ii) the Centers for Medicare & Medicaid Services;

(iii) the Health Resources and Services Administration;

(iv) the Centers for Disease Control and Prevention;

(v) the Indian Health Service; and

(vi) the Administration for Children and Families; and

(2) representatives of—

(A) stakeholder organizations;

(B) health care providers and professional membership organizations with expertise in maternal health or environmental justice;

(C) State and local public health departments;
(D) licensed and accredited hospitals, birth centers, midwifery practices, or other health care practices that provide prenatal or labor and delivery services to vulnerable individuals; and

(E) institutions of higher education, including such institutions that are minority-serving institutions or have expertise in maternal health or environmental justice.

SEC. 5. STRATEGY FOR IDENTIFYING CLIMATE CHANGE RISK ZONES FOR VULNERABLE MOTHERS AND BABIES.

(a) IN GENERAL.—The Secretary of Health and Human Services, acting through the Director of the Centers for Disease Control and Prevention, shall develop a strategy (in this section referred to as the “Strategy”) for designating areas that the Secretary determines to have a high risk of adverse maternal and infant health outcomes among vulnerable individuals as a result of risks associated with climate change.

(b) STRATEGY REQUIREMENTS.—

(1) IN GENERAL.—In developing the Strategy, the Secretary shall establish a process to identify areas where vulnerable individuals are exposed to a high risk of adverse maternal and infant health out-
comes as a result of risks associated with climate change in conjunction with other factors that can impact such health outcomes, including—

(A) the incidence of diseases associated with air pollution, extreme heat, and other environmental factors;

(B) the availability and accessibility of maternal and infant health care providers;

(C) English-language proficiency among women of reproductive age;

(D) the health insurance status of women of reproductive age;

(E) the number of women of reproductive age who are members of racial or ethnic groups with disproportionately high rates of adverse maternal and infant health outcomes;

(F) the socioeconomic status of women of reproductive age, including with respect to—

   (i) poverty;

   (ii) unemployment;

   (iii) household income; and

   (iv) educational attainment; and

(G) access to quality housing, transportation, and nutrition.
(2) **RESOURCES.**—In developing the Strategy, the Secretary shall identify, and incorporate a description of, the following:

   (A) Existing mapping tools or Federal programs that identify—

   (i) risks associated with climate change for vulnerable individuals; and

   (ii) other factors that can influence maternal and infant health outcomes, including the factors described in paragraph (1).

   (B) Environmental, health, socioeconomic, and demographic data relevant to identifying risks associated with climate change for vulnerable individuals.

   (C) Existing monitoring networks that collect data described in subparagraph (B), and any gaps in such networks.

   (D) Federal, State, and local stakeholders involved in maintaining monitoring networks identified under subparagraph (C), and how such stakeholders are coordinating their monitoring efforts.

   (E) Additional monitoring networks, and enhancements to existing monitoring networks,
that would be required to address gaps identified under subparagraph (C), including at the subcounty and census tract level.

(F) Funding amounts required to establish the monitoring networks identified under subparagraph (E) and recommendations for Federal, State, and local coordination with respect to such networks.

(G) Potential uses for data collected and generated as a result of the Strategy, including how such data may be used in determining recipients of grants under the program established by section 2 or other similar programs.

(H) Other information the Secretary considers relevant for the development of the Strategy.

(c) COORDINATION AND CONSULTATION.—In developing the Strategy, the Secretary shall—

(1) coordinate with the Administrator of the Environmental Protection Agency and the Administrator of the National Oceanic and Atmospheric Administration; and

(2) consult with—

(A) stakeholder organizations;
(B) health care providers and professional membership organizations with expertise in maternal health or environmental justice;

(C) State and local public health departments;

(D) licensed and accredited hospitals, birth centers, midwifery practices, or other health care providers that provide prenatal or labor and delivery services to vulnerable individuals; and

(E) institutions of higher education, including such institutions that are minority-serving institutions or have expertise in maternal health or environmental justice.

(d) NOTICE AND COMMENT.—At least 240 days before the date on which the Strategy is published in accordance with subsection (e), the Secretary shall provide—

(1) notice of the Strategy on a public website of the Department of Health and Human Services; and

(2) an opportunity for public comment of at least 90 days.

(e) PUBLICATION.—Not later than 18 months after the date of the enactment of this Act, the Secretary shall
publish on a public website of the Department of Health
and Human Services—
(1) the Strategy;
(2) the public comments received under sub-
section (d); and
(3) the responses of the Secretary to such pub-
lic comments.

SEC. 6. DEFINITIONS.

In this Act, the following definitions apply:
(1) ADVERSE MATERNAL AND INFANT HEALTH
OUTCOMES.—The term “adverse maternal and in-
fant health outcomes” includes the outcomes of
preterm birth, low birth weight, stillbirth, infant or
maternal mortality, and severe maternal morbidity.

(2) INSTITUTION OF HIGHER EDUCATION.—The
term “institution of higher education” has the
meaning given such term in section 101 of the High-

(3) MINORITY-SERVING INSTITUTION.—The
term “minority-serving institution” means an entity
specified in any of paragraphs (1) through (7) of
section 371(a) of the Higher Education Act of 1965
(20 U.S.C. 1067q(a)).

(4) RACIAL AND ETHNIC MINORITY GROUP.—
The term “racial and ethnic minority group” has the
meaning given such term in section 1707(g) of the Public Health Service Act (42 U.S.C. 300u–6(g)).

(5) **Risks Associated with Climate Change.**—The term “risks associated with climate change” includes risks associated with extreme heat, air pollution, extreme weather events, and other environmental issues associated with climate change that can result in adverse maternal and infant health outcomes.

(6) **Stakeholder Organization.**—The term “stakeholder organization” means—

(A) a community-based organization with expertise in providing assistance to vulnerable individuals;

(B) a nonprofit organization with expertise in maternal or infant health or environmental justice; and

(C) a patient advocacy organization representing vulnerable individuals.

(7) **Vulnerable Individual.**—The term “vulnerable individual” means—

(A) an individual who is pregnant;

(B) an individual who was pregnant during any portion of the preceding 1-year period; and

(C) an individual under 3 years of age.