

NINR Request for Information (RFI): Advancing Nursing Research in Climate and Health
ANA Comments Submitted Through [Online Form](#)

1. Social and Structural Factors that Contribute to Health Effects of Climate Change and the Mitigation and Adaptation Strategies to Counter Them

The health effects of climate change can be amplified by structural racism and associated policies. For example, marginalized housing practices (e.g., “red-lining”) can increase climate change-related exposure to health hazards, such as extreme heat (e.g., urban heat islands, lack of adequate cooling and tree cover), worsened air quality [5], and flooding with accompanying toxic waste release. In addition, discriminatory distribution of services and resources, such as the absence of grocery stores with healthy food options and inadequate health care access, can compound the climate change-related exacerbation of chronic conditions [6]. On a broader scale, global and local food systems are in immediate threat from the effects of climate change (e.g., crop yields, marine health), which will increase nutritional insecurity [4]. Strategies to enhance the resiliency of disadvantaged communities in the face of climate change might include infrastructure enhancements to reduce flooding and heat islands and support cooling systems (i.e., strengthen the electric grid). Research to characterize negative effects of climate change and evaluate implementation of policies would provide important information for development of future policies and actions.

Potential topics

- Researching unintended health threats from climate mitigation strategies and policies in transportation, energy, agricultural, health care, and other sectors.*
- Identifying health effects of climate change that are exacerbated by health disparities, poverty, and climate migration, and developing evidence-based solutions for them.*
- Studying interventions to address social determinants of health that increase susceptibility to climate change impacts on health and/or modify the effectiveness of responses to climate-related events*
- Studying the impact of climate change on health care access, health care systems (e.g., supply chains, infrastructure) and developing adaptations to health care systems (e.g., dialysis, chemotherapy, prenatal care, assistance for people with disabilities) in the wake of climate-related disasters (e.g., flooding, tornadoes, hurricanes, extreme heat, winter storms, wildfires).*

Where can nursing research make a difference and/or provide a unique perspective regarding social and structural factors that contribute to health effects of climate change, and mitigation and adaptation responses?

As detailed in our recently issued [Position Statement](#), the American Nurses Association (ANA) recognizes that climate change is a critical public health issue that requires urgent action to mitigate its impact on human health and well-being. Nurses are called upon to integrate the science of climate and health into nursing education, research, and practice and to work with other health care professionals, community organizations, and policymakers. Together, with nurses in the lead, we must identify approaches to address the multiple health consequences of *environmental degradation*, extreme weather events, and other *climate-related health impacts* with evidence-based *mitigation and adaptation* actions, programs, and policies.

Nurses are present in almost every part of our health care delivery system, which allows nurses to be in a unique position to make great impact. The skills and expertise of nurses to identify mitigation and adaptation strategies for

health care systems and the patients they serve must be leveraged. Moreover, nurses are skilled at designing better processes and policies to advance mitigation strategies in their practice areas. Research investments that serve to support nurses in this critical work is needed as part of any examination of the impact of climate change on health care access and systems.

2. Individual, Population, and Community Factors in the Context of Climate Change that Create Associated Health Challenges and Relevant Solutions

In addition to policies and structural conditions that amplify the negative health effects of climate change in vulnerable populations, individual and community factors have a role. Some of these populations are less resilient and more sensitive to climate-associated effects, and communities have differing capacities to address climate-associated health risks [7]. A better understanding of these multi-level factors would contribute to the development of effective solutions.

Potential topics

- *Evaluating how environmental exposures caused by climate change may influence an individual's health.*
- *Identifying interventions that can reduce negative health effects on population groups with disproportionate exposure to poor air quality.*
- *Creating communication strategies about the health risks of climate change in collaboration with community members and health workers.*

Where can nursing research make a difference and/or provide a unique perspective about individual, population, and community factors regarding climate change that create associated health challenges and relevant solutions?

ANA urges investments in and a focus on nursing research that target how nurses can best educate patients and the public about climate change and mitigation strategies. In addition, research must recognize the responsibility of the nursing profession to address pollution caused by nursing practice, product selection, and policies. Leaders can establish goals, metrics, and improvement plans to reduce this harm. This can be especially important at the individual, community, and population level. This begins with nursing curricula, which should also incorporate climate and sustainability content and discourse to ensure the next generation of nurses are well equipped and positioned to continue critical mitigation and adaptation.

3. Opportunities to Counteract Negative Health Effects of Climate Change

As the health effects of climate change become more apparent, a wide range of participants from research, health care, public, and private sectors can contribute to the solution. Building awareness of health risks (particularly for vulnerable and underserved populations) among health care professionals, adaptation of environmental early warning systems [5], and modification of ongoing research programs present opportunities. Partnerships and collaborations across disciplines will enhance future endeavors.

Potential topics

- *Investigating, developing, and testing approaches to prepare and build resiliency for those most affected by the effects of climate change (e.g., extreme heat, flooding, wildfires, drought).*

- *Studying the health co-benefits of climate-directed mitigation strategies associated within the built environment and infrastructure (e.g., urban planning, green spaces, cooling centers, enhanced public transportation options, improved agricultural practices, nutritional policies) on individuals and communities.*
- *Investigating the unique role that community health workers (including community nurses) can play in communicating the health risks of climate change, evaluating health needs of community members, and building cooperative health interventions with community members in the context of climate change effects.*

Where can nursing research make a difference and/or provide a unique perspective regarding approaches to counteracting the negative health effects of climate change?

As discussed in our [Position Statement on climate change](#), ANA understands the critical need for policies and practices that prioritize health and safety in a changing climate. This includes protecting the rights and dignity of individuals and communities impacted by climate change, promoting environmental justice and equity, integrating knowledge of climate change’s impacts on health into nursing practice, conducting environmental risk and exposure assessments, and collaborating with interdisciplinary teams and stakeholders to develop and implement strategies for climate mitigation and adaptation. Communities and countries that contribute the least to greenhouse gas emissions are frequently the ones to suffer first and worst. We therefore acknowledge that mitigation strategies must reflect a commitment to equity and social justice.

Research is needed to identify policies that advance just and equitable climate responses in public health and health care, and direct adequate resources to communities that are overburdened by climate-related conditions, such as those marginalized by race, gender, poverty, ability, etc., and therefore bear disproportionate burdens of toxic waste from industries and climate-related consequences.

4. Other Topics in Climate and Health Research

What are additional topic areas in climate and health research in which nursing research can make a difference and/or provide a unique perspective?

Programs and incentives are needed to spark interest and funding for nursing research and innovation on climate change and climate justice. This is especially needed at all levels – local, state, and federal.

Innovation is particularly needed to ensure that climate change solutions are equitable and

effective for all people across the globe, so as not to have only those individuals, communities, and nations that can afford them make progress. ANA encourages researchers to work closely with us and our members. Recently, ANA developed the [ANA Enterprise Innovation](#) platform to support and promote nursing innovation. This work has yielded several nurse climate change innovators that can serve as replicable examples of leading real change on this critical issue.