

# Health Awareness and Education Toolkit to Improve Climate Health

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## Abstract

Poor air quality, wildfires, extreme weather that causes social disruption, vector-borne illnesses, and death have all been linked to climate change, making it one of the biggest threats to global public health. In addition, climate change increases the risk of food and housing insecurity, increases environmental toxins, and stresses mental and physical health. People are also more likely to sustain injuries caused by climate change because of social inequalities in access to the resources and opportunities necessary for optimal health. Numerous risk factors for injury and disease are increasing as a result of climate change, which has a significant impact on human health as a whole.

Keywords: Poor air quality; Environmental toxins

# Introduction

In this context, kidney disease is especially interesting because the kidney plays a unique role in protecting against heat and dehydration and is a significant site of illness linked to heat stress. In addition to directly causing or aggravated pre-existing kidney disease, extreme heat has also been linked to increased exposure to risk factors for kidney disease, particularly acute kidney injury (AKI), chronic kidney disease (CKD), and kidney stones. Over 850 million people worldwide are affected by kidney disease, which is a global health crisis. Kidney disease is becoming more common, and experts predict that by 2040, it will be the fifth leading cause of death worldwide. When viewed in the context of its disease burden and under recognized and underreported statistics, the anticipated rise in kidney disease incidence and prevalence is alarming and troubling. While the number of people with kidney disease continues to rise, many people are still unaware that they are at risk. This is due to the fact that kidney disease does not present any obvious signs or symptoms until it has progressed to an advanced stage.

Further expanding its portion of infection trouble is the absence of mindfulness with respect to HCPs of the relative multitude of kinds of kidney illness and its numerous gamble factors, when contrasted and their consciousness of diabetes (DM) and hypertension (HTN). Even though kidney disease is frequently thought to be caused by other chronic conditions like diabetes or high blood pressure, the role that socioeconomic inequality plays in the epidemic is becoming increasingly concerning. These modern gamble factors for kidney illness incorporate financial variations like destitution, unsheltered vagrancy, food and water weakness, and an absence of essential medical care or fundamental prescriptions, as well as natural factors, for example, unfortunate hydration in individuals who perform exercises in hot conditions for delayed timeframes.

Heat-related kidney infection is preventable. Because they frequently see patients and are frequently contacted by patients, primary care HCPs play a crucial role in assisting patients who face climate-related health risks. Climate change and health counseling can be facilitated and information about the serious health effects of climate change can be provided during primary care visits. HCPs in primary care who have received training in climate health are more likely to identify and closely monitor patients who are at risk and to recommend risk-reduction strategies shortly before, during, and after heatwaves. HCPs, for instance, can advise at-risk patients on how to recognize the early signs of heat injuries and take the necessary precautions, such as drinking enough water and moving to cooler areas during heat waves. Overall, the quickest way to reduce preventable kidney disease and its enormous cost is to assist patients in recognizing risk factors.

Training is required to equip primary care HCPs with the knowledge and skills necessary to communicate the health impacts of climate change and to comprehend the connections between climate change, kidney disease, and the social determinants of health (SDOH) in their community. Additionally, evidence-based climate-health materials that are accessible are required to assist HCPs in providing effective climate-health counselling. The Climate Change and Renal Health Awareness and Education Toolkit for Healthcare Providers were developed as part of this quality improvement (QI) project. The purpose of the toolkit was to bring climate-health evidence into primary care. In two Central Texas Veterans Administration (United States) primary care clinics, we implemented the toolkit into routine clinical practice and evaluated its efficacy as a knowledge translation strategy to encourage climate-health counselling adoption in routine practice [1-6].

# Discussion

Based on the most recent climate-health research, the intervention, The Climate Change and Renal Health Awareness and Education Toolkit for Healthcare Providers, focused on extreme heat and kidney disease. It covered fundamental information about kidney disease and the effects of high temperatures and extreme heat on kidney health in its educational material. A heat stress and kidney disease illustration, tips for conducting climate change and health counselling in the clinic, climate-health pocket reminders cards, and commitment strategies to support sustainable climate-smart health care practices were also included as interactive resources to assist HCPs in effectively communicating about climate change and health. We anticipated that clinical adoption for sustainability would rise as a result of increased knowledge of the toolkit, its effects on communication, and accessibility to its resources.

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A pretest-posttest process was used to gauge HCPs' information, disposition, and self-viability and to evaluate any change related with the tool stash. Survey Monkey was used to create an online 6-item protest and identical post-test with a 5-point Likert Scale response and one multiple choice response. Participation was open to health care professionals (HCPs) in the primary care setting. Participants were also invited from professional clinic leaders who were responsible for advancing evidence-based practice. To determine the toolkit's efficacy as a knowledge translation strategy for facilitating a practice change among HCPs, we recruited from two primary care clinics within the Central Texas Veterans Administration with a combined total of 268 HCPs. We also created a four-item user experience questionnaire to assess the toolkit's usability for learning and clinical practice. The Yale Institutional Review Board deemed the project to be of minimal risk and granted it exempt status.

The KTA framework and the IMEH were used in this creative co-design project to create an educational toolkit. In an effort to raise awareness of the connection between clinical practice and renal health and climate change, we looked at the knowledge and practices of two VA primary care clinics in Central Texas. In the initial survey, HCPs were found to be unaware of the interactions between climate and health. The HCPs said they needed more climate-health training to feel more comfortable talking about this with their patients. As a result, the toolkit focused on making health care professionals (HCPs) more aware of kidney disease education, expanding it to include the health effects of climate change, and developing their abilities and knowledge for engaging in and communicating about climate change in the practice setting. As was anticipated, the project's outcomes provided some evidence that the toolkit intervention was linked to the improved climate-health knowledge and self-efficacy of HCPs that was found in the main project analysis [7-10].

#### Conclusion

In addition, the project provides novel insight into how the IMEH model and the KTA framework can be utilized in conjunction to guide health interventions and evaluate their impact in order to promote climate-health best practices recommendations. We believe that the IMEH is a good fit for our toolkit design because it places a greater emphasis on SDOH. This lets us communicate and make connections between what we know about kidney disease, climate change, the effects on health, and social justice. The Sustainable Development Goals (SDGs), which prioritize enhancing individuals', communities', and the environment's overall health and well-being, are supported in this way as well. In general, this project serves as a model for promoting best practices for climate health and supports the toolkit as an effective strategy for raising awareness about the relationship between climate change and health in the primary care setting.

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