

Views of AAAAI members on climate change and health

Mona Sarfaty, MD, MPH^a,

Jennifer M. Kreslake, PhD, MPH^a, Thomas B. Casale, MD^b,
and Edward W. Maibach, PhD, MPH^a



Clinical Implications

- American Academy of Allergy Asthma and Immunology members are witnessing medical problems caused by climate change among their patients. They support physician leadership on environmental sustainability, advocacy by physicians and their associations, and education for themselves, their patients, the public, and undergraduate medical students.

TO THE EDITOR:

There is a rapidly growing literature documenting the health impacts of climate change in the United States.¹⁻³ The American Academy of Allergy Asthma and Immunology (AAAAI) assessed their members' knowledge, attitudes, and experiences with climate change and health in collaboration with George Mason University in a survey of the membership. Survey topics included perceptions about the existence and causes of climate change, experiences with any health effects of climate change in clinical practice, and preferred actions, if any.

The survey instrument, which was administered online using Qualtrics software, was an expansion of a previously validated instrument adapted by adding questions for a clinical audience.⁴⁻⁶ It included 28 closed-ended and 4 open-ended questions. The project was approved by Mason's Institutional Review Board (Project 701651-1).

In February 2015, a letter of invitation to participate in the survey—including a link—was emailed to the US membership (N = 5615); 141 invitations bounced back because of invalid email addresses. Up to 4 additional requests were emailed to nonrespondents at 1 week intervals (only nonrespondents received reminders); a notice was posted at the Annual Meeting. To encourage participation, participants were entered into a raffle to win free registration for the AAAAI annual meeting and a \$5 donation to the ARTrust. A total of 1184 people responded; the response rate was 22%. The sample included respondents from 47 states and the District of Columbia.

Stata statistical software was used to run descriptive statistics on all variables, using unweighted data. The 95% confidence intervals (CIs) for proportional data were $\pm 3.5\%$ or less,⁷ and mean differences were deemed significant if $P < .05$ in a 2-tailed test. Open-ended responses were edited for grammar and spelling. Find full results and the survey in the Online Repository at www.jaci-inpractice.org.

RESPONDENTS

Most respondents held an MD/DO degree (91%); other degrees included PhD (10%), masters (5%), or another clinical

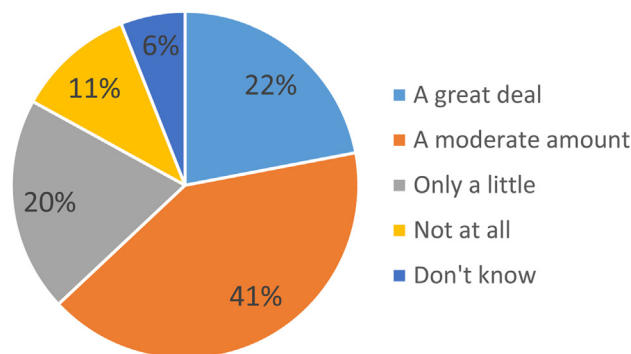


FIGURE 1. Climate change is relevant to direct patient care.

degree (5%). Most worked in outpatient clinical medicine (74%), hospital medicine (4%), or academia (18%).

There were no significant differences in age or gender, race and/or ethnicity, or the location (state) of work, between the respondent group and the sample.

KNOWLEDGE, BELIEFS, AND ATTITUDES

A majority of respondents (81%) think that human-caused climate change is happening. Over half of respondents (54%) indicated that climate change is *mostly* (47%) or *entirely* (7%) caused by human activity, and 22% thought that it was *equally* caused by human and natural activities; 73% indicated that they had personally experienced climate change to some extent outside their role as a health professional. However, only a minority of respondents felt “very” (10%) or “moderately” (33%) knowledgeable about climate change and health.

CLINICAL EXPERIENCE

A majority of respondents (63%) indicated that climate change is relevant to direct patient care “a great deal” or “a moderate amount.” Another 20% considered it “a little” relevant to direct patient care (Figure 1). Most reported that climate change is already affecting the health of their own patients, “a great deal” (10%), “a moderate amount” (38%), or “only a little” (26%). In bivariate regression analysis, older (50 years or more) physicians perceived climate change to be less relevant to direct patient care compared with younger physicians, but this relationship became insignificant when controlling for strength of belief in climate change. Older physicians perceived climate change to be affecting their own patients to a lesser extent compared with physicians below age 50, even when controlling for strength of belief in climate change (OR: 0.70, 95% CI: 0.54, 0.89).

Respondents were asked: “In which of the following ways, if any, do you think *your* patients are currently being affected by climate change, or might be affected in the next 10-20 years?” The most common health effects identified for *currently being affected* were as follows: