

Opportunities for Climate and Environmental Health Materials in UCSF OBGYN & Pediatric Clinics

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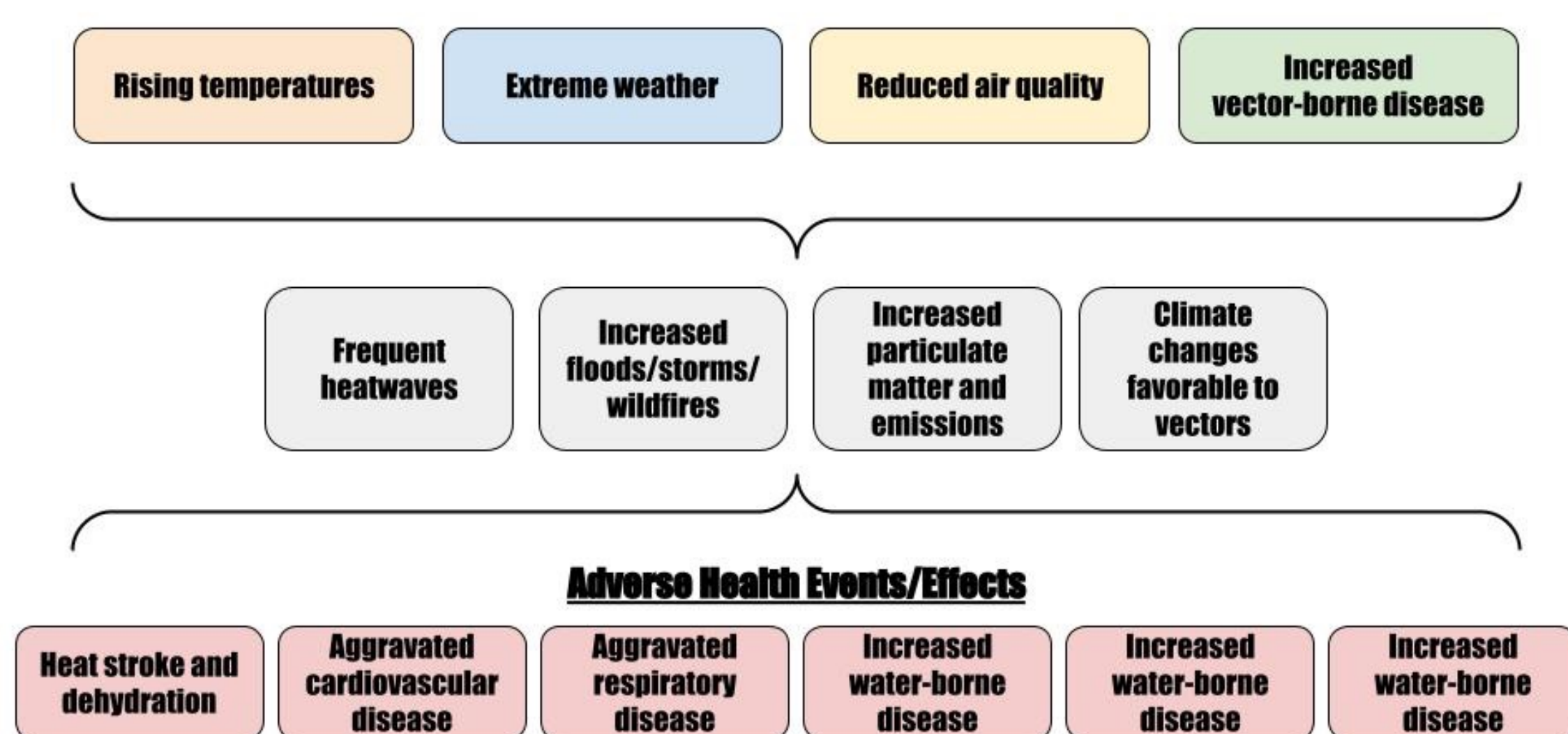
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Introduction

Climate change is an ongoing, reversible process that has profound impacts on human health. Increased air pollution, extreme weather events, exposure to environmental contaminants, heat waves, water-borne disease transmission, threats to potable water quality, and the anxiety that accompanies these changes are just a few of the avenues through which the changing climate affects us. The toll this takes is significant. The WHO estimates that 23% of all global deaths (12.6 million) every year are attributable to climate change.

Climate Change and Human Health



The American Public Health Association has outlined the various pathways that connect climate/environmental and human health

Given these impacts on human health it is surprising that climate and environmental health, the confluence of the environment and human health, is a topic that is lacking in the healthcare setting. Furthermore, research has shown that educating patients on climate and environmental health can increase sustainable behaviors and instill a sense of urgency in addressing climate change. To assess exactly how climate and environmental health are covered in the UCSF Health system, we opted to perform a needs assessment in various pediatric and OBGYN clinics.

Project Goals

#1 - We aimed to assess the current status of the following:

- Screening processes for environmental and climate health exposures and risks
- Current climate and environmental health education materials available to patients during and after clinic visits
- Current climate and environmental health education measures for providers (afternoon seminars, educational modules, newsletters)
- Areas of opportunities for clinics regarding climate and environmental health materials for both patient and provider education based on their preferences

#2 - Determine preferred format for outreach and educational materials and/or if materials could be provided electronically

#3 - Determine if clinics would be interested in providing climate and environmental health trainings for clinic staff

#4 - Develop climate and environmental health resources for providers and patients tailored to gaps identified through these interviews

Materials and Methods

To achieve these goals, we conducted open-form interviews with 5 pediatric and OBGYN clinics within the UCSF network. We asked open-ended questions centered on the aforementioned goals and recorded portions of direct conversation as well as paraphrased notes. Utilizing a narrative approach, we summarized the results of the interviews to identify core emergent themes.

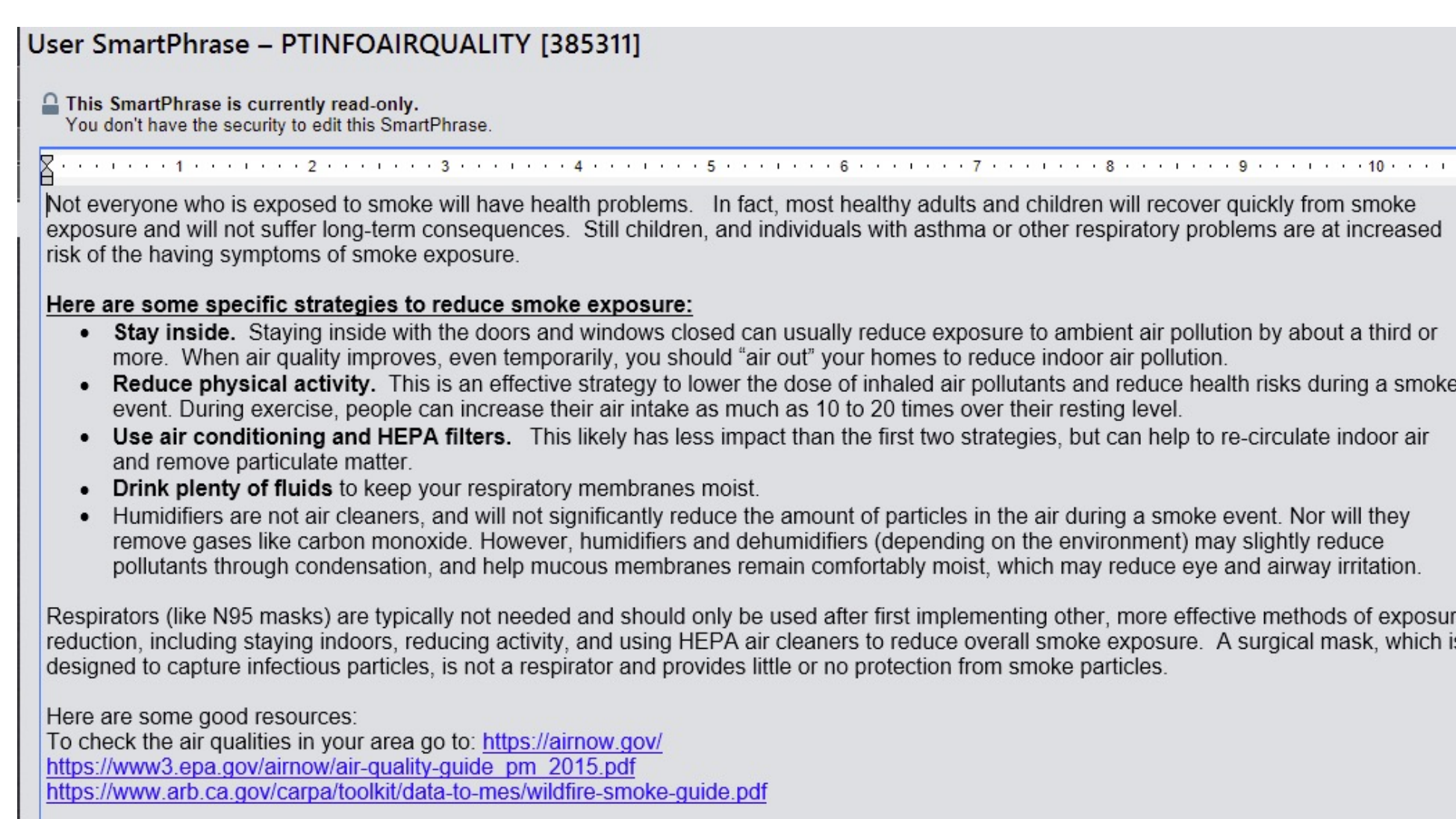
Results and Outcomes

Though each interview yielded unique insights into the current screening processes and health education methods of each individual clinic, there were multiple thematic threads that connected the interviews together.

One such thread was a **lack of existing, standardized environmental screening processes**. None of the OBGYN clinics had formalized processes for asking patients about environmental exposures, while one pediatric clinic had a questionnaire to ask families about their patients' exposure to toxins, such as lead in buildings constructed before 1978 (Centers for Disease Control and Prevention).

Additionally, there was a **limited number of educational tools to aid providers in discussing climate and environmental health exposures as well as how to mitigate such exposures**. Many of the clinic directors and managers pointed to a lack of awareness of climate and environmental health as significant reason for the aforementioned lack of screening processes. While some of the clinics were aware of exposures, such as wildfire smoke and lead, they expressed a shared confusion surrounding the umbrella term "climate and environmental health" and what topics and toxic exposures fell under this category.

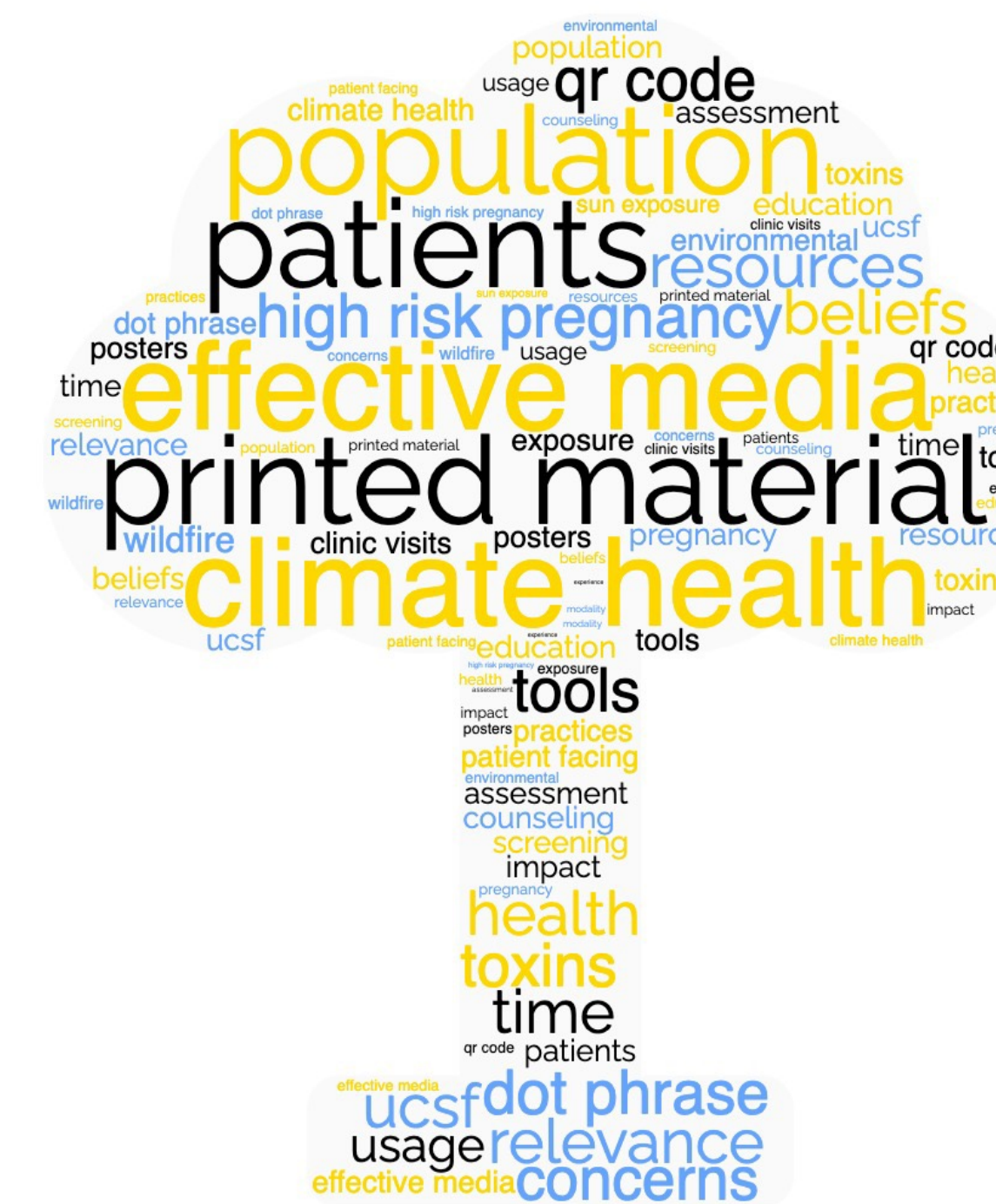
As a result, most of the clinics expressed a **significant need for climate and environmental health education materials** for both providers and their patients. For providers, the clinics all suggested webinar training modules. For patients, the responses varied. Some clinics suggested printed materials or posters with QR codes for patients to view while in the waiting room, while other clinics indicated that virtual materials may be more beneficial to decrease the environmental impact of the clinic. However, overall, the majority of the clinics expressed **interest in dotphrases that could be used to quickly attach educational materials to patients' after visit summaries**, such as the one pictured below about air quality and smoke exposure.



While the majority of clinics displayed interest in such educational tools for providers and their patients, some pointed to **logistical barriers to the implementation of such tools**. For example, one of the clinics expressed that there is no time to talk about environmental factors with patients in a 15-minute visit, during which many other topics need to be discussed and emphasized that such discussions would need to be initiated by the patients. Moreover, one of the clinics indicated that discussion of environmental exposure would be outside of the scope of the clinic or inappropriate due to the nature of the visits, such as fertility care appointments.

Conclusions

The interviews with OBGYN and pediatric clinics indicate that there is a significant gap in provider understanding and discussion of climate and environmental health with their patients. While the modality of educational tools to fill this gap may need to be adjusted to suit each clinic's unique needs, informational webinars for providers and dotphrases that can be used to add information to patients' after visit summaries may be the most efficient and impactful.



Future Goals

These findings highlight the potential to improve how climate and environmental health are addressed in UCSF clinics. Our findings show that clinics believe electronic materials, such as dot phrases utilized in after-visit summaries, would be effective in disseminating climate and environmental health information that is tailored to specific patient concerns. To test this hypothesis, our next step will be to conduct a survey of providers at UCSF pediatric and OBGYN clinics to assess for these beliefs across a greater pool of providers.

If these findings are supported by our provider survey, then we will develop 2-3 dot phrases for specific climate and environmental health concerns such as heatwaves, wildfire smoke exposure and environmental toxin exposures. We will circulate these dot phrases throughout pediatric and OBGYN clinics at UCSF and utilize the Epic electronic medical record system to obtain meta-data on utilization of these phrases over an initial trial period. If these phrases prove effective and relevant, then we will aim to develop other climate and environmental health-specific dot phrases to provide to companies providing widespread dot phrase packages for health systems.

Literature Cited

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