

Environmental Health— Helping the Most Vulnerable Survive and Thrive in Times of Rapid Climate Change

Traditional models of how we care for patients are evolving—as is our knowledge of what factors influence disease. The Minnesota Department of Health Climate and Health Profile provides a comprehensive overview of how changes in our state’s climate impact the health of our patients.¹

At the intersection of health care and climate change, the underserved and more vulnerable are facing more frequent and more intense disruptions to their health than others.² Acute and chronic climate events can have a wide range of impacts on the mental health of these same groups, and should be considered as we try to understand and respond to their healthcare needs.³

By combining population vulnerability indicators (e.g. the elderly, children, homeless, minorities, chronically ill) with

historic climate hazard data, a geographic “composite vulnerability” has been developed for those facing extreme heat, air pollution, flooding and other events. In the Minnesota Climate Change and Vulnerability Assessment, the Twin Cities area had a Composite Air Quality Vulnerability Score that was among the highest in the state, showing that groups here suffer higher rates of asthma and COPD than in other counties.²

Most Americans recognize that pollution from fossil fuels is a risk to human health. But the Yale Program on Climate Change Communication showed that many participants in a recent study were not aware of the specific health problems related to air pollution.⁴ This suggests there is great opportunity for our healthcare community to improve the education we provide to our patients and their caregivers, about how air quality is related to their health and quality of life. Physicians

can lead by supporting efforts to mitigate and adapt to effects of climate change, by helping to educate patients and communities about health risks related to climate change, and by adopting lifestyle changes that increase sustainability and reduce our environmental footprint. ♦

References:

1. *Minnesota Climate and Health Profile Report*, MDH 2015. <https://www.health.state.mn.us/communities/environment/climate/docs/mn-profile2015.pdf>.
2. *Minnesota Climate Change Vulnerability Assessment Summary*, MDH 2019. <https://www.health.state.mn.us/communities/environment/climate/docs/mnclimvulnreport.pdf>.
3. *Mental Health and Our Changing Climate*: pp. 31-38, 2017. <https://ecoamerica.org/wp-content/uploads/2017/03/ea-apa-psychreport-web.pdf>.
4. *Yale Program on Climate Change Communication*, 14 May 2019. <https://climate-communication.yale.edu/publications/do-americans-understand-how-air-pollution-from-fossil-fuels-harms-health/>.
5. *Climate Change and Health: A Position Paper of the American College of Physicians*. *Ann Intern Med*. 2016. <https://annals.org/aim/fullarticle/2513976/climate-change-health-position-paper-american-college-physicians>.

By D. Eric Beck, MD, FACP

TCMS Celebrates First Fellowship Cohort

TCMS celebrated the work of our first cohort of medical student participants in the Dr. Pete Dehnel Public Health Advocacy Fellowship at an open house in May. Key lessons learned throughout the year-long fellowship included:

- Researching the context of the project/issue, including who is currently working in this space and what past efforts have taken place
 - Being persistent and flexible
 - Working in partnership with impacted people and staying human-centered
 - Staying true to your values and using them to guide your work
 - Fostering a culture that supports public health initiatives
- One of this year’s fellows, Lucas

Zellmer, also shared a note reflecting his experience in the program:

“Being a Dr. Pete Dehnel Public Health Advocacy Fellow allowed me to appreciate the impact that state and local policy has on medical practice. As a fellow, I formed lasting relationships, contributed to a grassroots movement, and extended my medical education beyond the classroom and into the community.”

TCMS is deeply grateful for Dr. Pete Dehnel and the other physician mentors who made this project possible, and is excited to work with a new group of medical students beginning in September. Next year’s cohort will be working

to address issues including disparities in maternal mortality, advancing healthy eating through agricultural policy, increasing participation in Minnesota’s organ donor program, and expanding syringe exchange programs. ♦



2018-19 Dr. Pete Dehnel Public Health Advocacy Fellowship program participants.