

ENVIRONMENTAL HEALTH

An Emerging New Normal In Healthcare

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Recognizing the importance of the environment in advancing health, the past few years have ushered in a sea change in awareness and action among reproductive and other health professionals about exposure to toxic environmental chemicals. The scientific evidence linking myriad adverse health outcomes to ubiquitous exposure to industrial chemicals in our air, water, food, consumer products, and workplaces has skyrocketed. So too has health professionals' recognition that embedding environmental health in healthcare offers a powerful opportunity for keeping our families and communities healthy now and across generations.

In 2013, U.S. Obstetricians and Gynecologists (OBGYNs) called for "timely action to identify and reduce exposure to toxic environmental agents while addressing the consequences of such exposure."^{1,2} In 2015, doctors around the world were mobilized on the issue by the publication of a policy statement by the leading global voice of reproductive health professionals, the International Federation of Gynecology and Obstetrics (FIGO).³ FIGO's Opinion outlined four mutually reinforcing recommendations for action by OBGYNs, women's health nurse practitioners, nurses, and other health professionals, and each of these recommendations has in turn garnered significant traction. FIGO also established an action plan and Reproductive Development Environmental Health Work Group to ensure enduring uptake of its recommendations on a global scale.⁴

Together, these changes herald the emerging normalization of environmental health in healthcare delivery and practice. Below we highlight some of the key areas where health professionals are advancing the goal of a healthier environment as a pathway to prevention.

Health professionals around the world have become part of the global movement for preventing exposure to toxic chemicals. In the past year, FIGO has advocated on behalf of improved policy at the U.S. Food and Drug Administration to reduce exposure to phthalates in our food supply, and has joined leading scientists from across the European Union to address concerns about criteria for identification and regulation of endocrine disrupting chemicals.^{5,6} An important area of work has been on public policy that governs how toxic chemicals enter the market place and, as a result, our bodies. Over the past several years, U.S. reproductive and other health professional societies have advocated for reforming the U.S. law responsible for regulating the tens of thousands of industrial chemicals in commerce. The law, the Toxic Substances Control Act (TSCA) of 1976, was weak and ineffective—a state of affairs succinctly characterized by Carl Cranor, a professor at the University of California, Riverside as allowing people to be "legally poisoned."⁷ Health professionals told Congress that the law should be changed to protect the

safety and health of their most vulnerable patients and the public from unsafe chemicals. In June, President Obama signed the Frank R. Lautenberg Chemical Safety for the 21st Century Act, which importantly requires the U.S. Environmental Protection Agency (EPA) to consider the impacts of industrial chemical exposure on vulnerable populations at greatest risk, such as pregnant women and workers.⁸

However, this positive change is unfortunately coupled to other principles and ideas proposed by the chemical industry, many of which directly conflict with approaches recommended by many medical, public health and environmental groups.⁹ For example, the Lautenberg Act does not require that industry provide a minimum set of data that would help establish whether a substance poses a risk in the first place, so the most basic information needed to protect patients and populations in a timely way will still be largely missing. EPA is also not required to account for the fact that patients are exposed to the same chemicals from many different pathways, e.g., food, water, and air, and nor is it required to consider that they also incur simultaneous exposures to different chemicals which can lead to the same health impact. So the true health hazards of environmental chemicals may be underestimated by EPA decision-making. Moreover, the timeframe for undertaking evaluations of the thousands of existing chemicals is exceedingly slow. As such, patients and populations will continue to be "legally poisoned" well into the future. In light of these strengths and weaknesses, health professional engagement in EPA's decision-making process as it develops regulations and guidelines for the new version of TSCA will be critical to making sure the agency adopts the most health-protective strategy using the best available science.¹⁰

Health professionals have been working to ensure a healthy food system for all. The power that health professionals and their institutions can have over preventing chronic disease by working for a healthy and equitable food system is exemplified by over two decades of policy work developed by the California Medical Association. Early initiatives raising concerns about pesticide use and health impacts within agricultural areas and schools laid the basis for follow-on comprehensive healthy food policies, that were in turn supported at the national level by the American Medical Association.¹¹ Today there is strong momentum for leveraging the billions of dollars in purchasing power of healthcare institutions to create a healthy food system for all. For example, in California one in four hospitals participates in the Healthy Food In Health Care Program, and almost half of the fresh produce purchased for patients at Kaiser Permanente are sustainably produced and/or locally grown.^{12,13} As a result of community and market-based interventions by the health care sector, healthier food is increasingly available to racially and socioeconomically diverse popula-

tions as well as healthcare workers.¹⁴

The success of various Health Care Without Harm-related practices over the past twenty years has already made an indelible impact on the environmental footprint of the healthcare sector. For example, these practices have advanced: safer alternatives to mercury in medical devices; sustainable health care waste management practices; the growing movement by hospitals and health systems toward low-carbon health care delivery and away from fossil-fuel based energy development; and, a worldwide health care movement for environmental sustainability called Global Green and Healthy Hospitals whose membership now includes organizations representing over twenty thousand hospitals in thirty-eight countries.¹⁵

Change is coming to the exam room where asking patients about their exposure to toxic chemicals should no longer be equated with “opening Pandora’s box.” Healthcare professionals can now feel more comfortable in opening up a conversation with their patients about their home and workplace exposures, as they can now draw on many science-based resources and patient-education tools and can consult with expert medical colleagues at trusted sources such as the University of California, San Francisco (UCSF), who can share evidence-based answers to patient questions or challenging clinical presentations. For example, clinicians in a network of Pediatric Environmental Health Specialty Units (PEHSUs) at UCSF and throughout North America are ready, willing, and able to respond to patient queries, as are experts at the National Institute for Occupational Safety and Health (NIOSH), who are available to consult on workplace exposures to toxic chemicals.^{16,17} Through the use of apps, in particular SafetyNest, developed in partnership with medical institutions, reproductive health professionals can become even more adept and confident in the science at counseling their patients about chemicals in their work and home environments on a routine basis.¹⁸ Environmental health is becoming embedded in medical research, training, and education. Efforts are now underway at the UCSF School of Medicine to infuse environmental health knowledge and practice into its research portfolio and new medical curriculum. Faculty have been engaged to integrate climate change and sustainability themes into existing courses, with the aim of normalizing environmental health and justice as benchmarks of core healthcare practice among the next generation of physicians. Networking events organized by UCSF’s Environmental Health Initiative have already facilitated collaboration by pediatric and environmental health researchers on work exploring connections between autism and air pollution and led to the expansion of the scope of UCSF’s premier Truth Tobacco Industry Documents Library to include chemical industry documents.^{19,20}

Doctors are also sounding the alarm about climate change. A two-year statewide initiative by the California Medical Association (CMA) Foundation is focused on mobilizing health provider champions to increase public understanding about climate change and to build public support for climate change solutions.²¹ Nationally, OBGYN leaders have defined climate change as an urgent women’s health concern and have called for government action to curb greenhouse gas emissions.²² The Canadian Medical Association has divested its fossil fuel holdings to send an urgent message to decision-makers as to the need to address climate change, and British doctors and other health



professionals have called it “imperative” to phase out coal rapidly to improve health and reduce healthcare costs.^{23,24}

In summary, health professionals now recognize that human health and environmental health are inextricably linked. Dr. Alex Schrobenhauser-Clonan, co-organizer of the EARTHHEALTH1 conference on Earth Day at UCSF this year described “EARTHHEALTH1” as “a declaration of interdependence: what is happening to our earth and earth systems mirrors what is happening to our health and our health systems.”²⁵ Such understanding and actions continue to expand throughout our healthcare system, and are fostering the creation of a new generation of physicians for whom the health of their patients is inseparable from the health of the planet that sustains us all.

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