Health at Risk

Washington physicians see the physical tolls of climate change

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Honor your patients’ right to informed decision-making.
During last November’s board meeting, your WSMA trustees were considering the organization’s strategic plan and goals for the coming year. Thoughtful discussion led to one of our leaders posing the question: What should the WSMA be doing around climate change? There ensued a robust debate, which continued in the subsequent days by email.

There were a range of views. Many wondered what WSMA’s role could or should be, while some questioned whether the WSMA should be in this space at all. Some shared concern about resources that might be required and others suggested staff lead on the topic with some specific suggestions.

No matter what, we know that the health of our environment is closely linked to the health of our communities. Who can forget the smoke from last summer’s wildfire season and how that impacted the health of Washingtonians?

Already, state officials are predicting another tough fire season for our state. For many physician practices and hospital emergency rooms, that will mean seeing more patients whose health conditions are worse due to smoke inhalation. The elderly and the very young are the most vulnerable, as always. People with asthma or other pulmonary problems are more likely to have their health further compromised by poor air quality.

It’s no surprise the medical community is concerned about the impact of climate change on patients and community health. According to a study in the Journal of the American Heart Association, when dense smoke is present, people over the age of 65 are 42 percent more likely to visit the emergency department for heart attacks and their cardiovascular risk is 40 percent higher. In real terms, this means wildfires are creating a public health crisis that is keeping pace with the increasing frequency and size of these events.

Climate change also has an immediate impact on our state’s resources. In this year’s legislative session, state legislators approved $50 million more for wildfire prevention. That’s the largest appropriation in the state’s history, and it puts additional pressure on state dollars. And that pressure puts the squeeze on WSMA’s priority asks, such as increasing Medicaid reimbursements or eliminating a B&O tax increase.

Clearly, the impact of climate change on health is a nuanced issue with a multitude of voices and opinions. But at its core, our concern is to help shape a comprehensive approach to environmental challenges so that we can strive to protect the health of patients. A good place to start is getting smart on the topic. Hopefully, this issue of WSMA Reports will prompt more conversation.

Have some thoughts on the matter? Write me at jen@wsma.org.

Jennifer Hanscom
WSMA Executive Director/CEO
Member Profile

Alan Melnick, MD, MPH, CPH

Works at: Clark County Public Health

Specialty: Public Health and General Preventive Medicine, Family Medicine (double-boarded)

Why WSMA: The WSMA is the voice of Washington physicians, who are essential in protecting and promoting the health of the public. I joined the WSMA knowing that it is a key partner in strengthening ties between the governmental public health system and practicing physicians, and that it takes a leadership role in developing policies to improve the health of all Washington residents.

Proud moment: Two recently: Working with community partners, including physicians, to control the recent measles outbreak, and working with the WSMA to pass a bill removing the personal exemption from school requirements for the MMR vaccine, thereby helping protect Washingtonians from future vaccine-preventable disease outbreaks.

Top concerns in medicine: In my specialty—adequate funding for foundational public health services. In health care—health disparities, inequities in access to health care, and the impact of social determinants, such as housing, education, and employment, on health.

What inspires me about being in medicine: Ability to make positive difference in peoples’ lives and in the health of communities.

Why I became a physician: I began college as an engineering student, but realized I wanted to work with people, that there were health disparities, and I wanted to create positive change.

Why I’m drawn to my specialty: I was drawn to public health and preventive medicine because of its upstream, preventive approach in addressing the social determinants of health.

Best advice I ever got: Understanding that positional/professional authority can be intimidating, and that given the power dynamics, other team members might not feel safe giving me critical feedback (which could adversely affect patient safety), and that I couldn’t be as effective working alone. Thus, if I were going to be a successful physician leader, I needed to learn how to listen to, honor, and respect my non-physician team members. This is a lesson I continue to learn.

Pet peeve: Right now, misinformation about measles and immunization that vaccination opponents are promoting.

Good reads on health care:
“Why Hospitals Should Fly” explains what hospitals could learn from the airline industry by addressing communication barriers resulting from hierarchical workplace cultures.

“The Status Syndrome,” written by an epidemiologist, analyzes how position in social hierarchy is a determinant of health.

“The Healing of America” describes how industrialized countries achieved universal access and better health outcomes.

“The Ghost Map” tells the story of Dr. John Snow, a public health pioneer, who investigated and determined the cause of cholera outbreaks in mid-19th century.

“The Immortal Life of Henrietta Lacks” tells the story of the origin of HeLa cells, and raises questions about research involving human subjects, including consent, involvement/treatment of racial and ethnic minorities as research subjects, and ownership/profit from human tissues used in research.
Members in the News

Russell Maier, MD, of Yakima was elected president of the Washington Academy of Family Physicians at the academy’s annual meeting in Coeur d’Alene, Idaho on May 10. Dr. Maier currently serves as the physician advisor to the Dean of the College of Medicine of Pacific Northwest University in Yakima.

Joseph Mattern, MD, of Port Townsend was awarded the 2019 Dr. John Anderson Memorial Award for Outstanding Rural Health Care Practitioner by the Washington Rural Health Association in April. Dr. Mattern is the chief medical officer and a primary care physician at Jefferson Healthcare, serving the Port Townsend area.

Marcy Hipskind, MD, of Bellingham was named the Washington Academy of Family Physicians’ Family Physician of the Year for 2019 at the academy’s annual meeting in Coeur d’Alene, Idaho on May 10. Dr. Hipskind recently retired as president and CEO of Bellingham’s Family Care Network.

Alex Hamling, MD, of Seattle received the Centers for Disease Control and Prevention’s 2019 Childhood Immunization Champion Award for Washington state in April. Dr. Hamling, a pediatrician at Pacific Medical Centers in Seattle, was recognized for his work increasing the child vaccination rate at his clinic.

Gregory Carter, MD, of Centralia was presented the 2019 MEDEX Outstanding Preceptor award at the MEDEX Northwest alumni reception and award ceremony on April 27. He was honored for his work as a teacher and mentor with the University of Washington’s physician assistant training program. Dr. Carter is the chief medical officer at St. Luke’s Rehabilitation Institute in Spokane.

Overheard

“There are people that have told my predecessors in medicine and public health that they have no role to play in environmental regulation, in automobile safety, in talking about the dangers of cigarettes. But imagine where our world would be now if medical and public health leaders did not speak up. Imagine how many millions of lives are owed to them because they refused to let other people define their lane.”

—Leana Wen, President, Planned Parenthood

in a New York Times interview, May 5, 2019

Hold the Date

**JULY 19**
August primary election 18-day voting period begins.

**JULY 28**
Effective date for bills passed during 2019 state legislative session.

**AUG. 6**
Washington state primary election.

**AUG. 16**
Deadline for reports and resolutions to be received at the WSMA Seattle office for publication in the WSMA Delegate Handbook.

**AUG. 22**
WSMA’s “Listening Tour” arrives in Spokane.

**AUG. 29**
WSMA’s “Listening Tour” arrives in Vancouver.

**AUG. 30**
The WSMA Delegate Handbook will be available for download on the WSMA website.
Want to go green? Here’s how

Physicians can lower costs and help the environment by reducing the carbon footprint in their practices. The AMA offers a simple guide to doing just that at bit.ly/amatoolkit. The AMA encourages physicians to serve as role models for promoting sustainability and to help educate their patients and the public on green practices. Get started today!

How to Serve as a WSMA Delegate

The 2019 Annual Meeting of the WSMA House of Delegates, WSMA’s premier policy-making event, is Oct. 12 and 13 in Seattle (see meeting insert in this issue for details). The House of Delegates is composed of WSMA members who represent, and are designated by, their respective county society or specialty society, as well as representatives of special sections and the board of trustees. If you would like to serve as a delegate at the 2019 WSMA Annual Meeting, please contact your local county society or state specialty society.

Vintage WSMA

During the battle this legislative session to pass House Bill 1638, which removes the personal and philosophical exemption for the MMR (measles, mumps, and rubella) vaccine, WSMA member physicians reminded legislators that vaccines save lives and that prevention is preferable to cure.

This photo from the WSMA archives is a sober reminder of a time when polio epidemics rocked the country and devastated the lives of children. Here’s a shout-out to the legislators who stood on the side of science and did the right thing to ensure our state has hope for a future free of totally preventable diseases such as these.
Health at Risk

Washington physicians see the physical tolls of climate change

BY RITA COLORITO
Every spring and summer, Tony Butruille, MD, a family physician in Leavenworth, deals with the impact of what the World Health Organization says is the “greatest public health threat in the 21st century”—climate change. Throughout Washington state, wildfires are the front-and-center concern, with the highest number of fires on record in 2018.

Leavenworth, a Bavarian-style city of some 2,000 people in the foothills east of the Cascade Mountains, has the state’s greatest exposure to wildfires, according to the U.S. Forest Service Pacific Northwest office. At times last August, the air quality in Washington was the worst in the world, with Seattle experiencing several consecutive days of unhealthy air.

August has become a shut-in period for many of Dr. Butruille’s patients as they try to avoid the smoke.

“Respiratory issues, asthma, COPD, and allergies all spike when you have drier conditions and more smoke and allergens in the air,” says Dr. Butruille. “Those exacerbations are not only much more frequent, but can also be much more severe.”

The dangers of wildfire smoke
According to the 4th National Climate Assessment, rising temperatures worldwide, driven by skyrocketing greenhouse gases, have led to a cascade of increasingly frequent and severe heat events, drought, and flooding, as well as sea level rise and spread of disease-carrying insects that impact the environmental and societal determinants of public health—clean air and water, sufficient food, and safe shelter.

Washington’s Department of Natural Resources predicts 2019 will experience hotter, drier temperatures and an earlier and longer fire season—and it’s not just the drier eastern half of the state. Some 40 percent of last year’s 1,850 fires, and 49 of 50 unseasonal wildfires that occurred by the end of March, struck west of the Cascades.

Wildfire smoke poses the greatest risk to young children, pregnant women, the elderly, and those with asthma, allergies, and heart and lung problems.

“The more smoke and air pollution we have in our environment, the more cardiovascular, cerebrovascular, and pulmonary diseases we can expect to see,” says Jeffrey Duchin, MD, a physician and health officer for Public Health – Seattle & King County.

Also impacted are those with kidney problems, says Annemarie Dooley, MD, a nephrologist in Bellevue.

“Your kidneys act as a giant sieve,” says Dr. Dooley. “Small particulate matter, under 2.5 micrometers, penetrates very deeply into lung tissue, is absorbed through the bloodstream, circulates to the heart, and the kidneys get 20 percent of what’s filtered through the heart every second.”

Researchers are still determining other developmental and long-term effects of wildfire smoke on children, who breathe more air per pound of body weight than adults because their metabolism
runs faster, says Chris Covert-Bowlds, MD, a family physician in Seattle.

“The concern is that their lung development may never reach its full potential,” he says.

The cascading effects of heat
Climate change means another new normal for Washington—increased temperatures and extreme heat events. A report from the University of Washington Climate Impacts Group (CIG) finds climate change is likely to increase heat-related illness, including heat exhaustion and stroke. Nationwide, extreme heat kills more Americans than any other form of severe weather.

Between 1990 and 2010, King County saw a 10 percent increase in deaths on “extreme heat days,” according to the National Climate Assessment. Recent heat waves have seen a significant increase in hospitalizations, especially for the elderly, says Dr. Duchin.

Increased temperatures play a major role in ground-level ozone and fine particulate matter (PM2.5), both widespread air pollutants in Washington that increase the risk of cardiovascular disease and death, including death from lung cancer. With high concentrations of these pollutants, Yakima and the greater Spokane area received failing grades from the American Lung Association’s most recent air quality report.

Renal health also should be on everyone’s radar, says Dr. Dooley. Heat stress can impact those with existing renal injury or at an increased renal risk, such as those with diabetes, as well as people whose kidneys are otherwise healthy.

“You can form kidney stones just by being dehydrated without having any kidney injury, by working or even playing out in hot weather,” she says.

Carbon dioxide in the atmosphere not only makes the trees produce more pollen, but the warmer weather and reduced rainfall is causing the pollen season to start earlier, last longer, and become more severe. “People are having asthma symptoms earlier and worse than ever before,” says Dr. Covert-Bowlds, whose son has asthma.

The result is also more severe allergy flares, says Markus Boos, MD, a pediatric dermatologist with Seattle Children’s.

“We have clinics where it’s wall-to-wall kids with atopic dermatitis,” he says.
Vector-borne and infectious diseases

Warmer year-round temperatures worldwide are also driving the population of disease-carrying mosquitoes and ticks. In the United States, vector-borne disease cases tripled from 2004 to 2016, according to the Centers for Disease Control and Prevention. Washington state is home to more than 40 species of mosquitoes, many of them capable of spreading disease.

Higher temperatures have led to an earlier onset of the potentially fatal West Nile virus-carrying mosquitoes, according to the Washington State Department of Health’s vector surveillance program. Since the first three human cases of West Nile reported in Washington in 2006, there have been an additional 92 endemic cases. King County had its first reported case of West Nile last summer.

The few reported cases of Zika virus were acquired elsewhere. The fear nationwide is that it’s only a matter of time before the two types of mosquitoes that cause Zika move northward.

Warming sea temperatures and increasing ocean acidity fuel harmful algal blooms that can contaminate recreational water and shellfish. Warming waters are also becoming more hospitable to disease-causing pathogens such as vibrio, says Dr. Duchin. “Vibrio cases have risen dramatically in recent years; it’s a disease that grows where a lot of our shellfish are farmed,” he said. “People get nasty gastroenteritis—vomiting, diarrhea—from vibrio. And it also has a real economic impact.”

Vulnerable communities

Communities of color, those with lower incomes, and indigenous people face the greatest and disproportionate climate risks, a CIG study found. These marginalized communities often lack the resources needed to manage their health or get the medical help they need, says Heidi Roop, a CIG climate change and equity researcher.

In Washington’s agricultural sector, some 79 percent of outdoor farm workers experience a heat-related illness during summertime harvest. Those workers are vulnerable to heat-stress nephropathy, says Dr. Dooley. It’s the leading killer of men under age 45 in Central America, where the majority of the population works outdoors.

Exacerbating the health of many outdoor workers during periods of high heat or wildfire smoke is that they often don’t seek medical help for fear of losing their job, says Russell Maier, MD, a family physician in Yakima, and physician advisor to the dean of Pacific Northwest University of Health Sciences. “If they do come in, what we’re seeing is more advanced respiratory illness. It’s hitting them when they can least afford it.”

In Seattle, and other highly populated cities, the air quality is always worse in lower-income communities, which often sit near major highways, says Dr. Covert-BowlDs. These communities often lack air conditioning necessary to deal with heat waves or times of wildfire smoke.

“Polar bears dying is sad, but kids in South Seattle struggling to breathe is the current face of climate change and air pollution.”

—DR. COVERT-BOWLDS

“Polar bears dying is sad, but kids in South Seattle struggling to breathe is the current face of climate change and air pollution.”

Physicians must speak out

Physicians are in a unique position to advance the dialogue on climate change, but public health systems face a steep hurdle when it comes to addressing climate change.

“We don’t have the resources in place to adequately track the health consequences of climate change,” says Dr. Duchin. “It lends to this complacency and helps people to minimize the fact that this is the single largest health threat facing us and will be for centuries unless we get our act together quickly.”

“Sometimes doctors get too focused on treating the disease without asking, ‘What are people going to do to solve the causes?’” Dr. Dooley says. “We should be screaming red [alert] in the summer to get vehicles off the road. The problem is not only particulate matter from wildfire smoke, but from diesel emissions.”

Every physician has a responsibility to get involved, Dr. Butruille says. “We are seeing the public health effects of climate change now,” he says. “We’re going to see more of them in the future and shame on us if we don’t do what we can to both prepare for and mitigate the results.”

Rita Colorito is a freelance journalist who specializes in writing about health care.
Taking a Stand

Health care systems address sustainability
BY PAT CURRY

Several Washington state hospital systems have been recognized for their efforts to reduce their effect on climate change. WSMA Reports talked to the sustainability managers at three health care organizations about the steps they have taken and asked them to suggest small steps individual physicians can take.

**Virginia Mason Medical Center**
Since 2011, Virginia Mason’s energy conservation efforts have saved more than 4.5 million kilowatt hours per year, and water conservation efforts have saved around 7 million gallons of water annually. The hospital’s food and nutrition department purchases nearly 40 percent locally or sustainably, and the hospital’s recycling and composting efforts achieved a 48 percent rate.

“Our footprint is giant as an industry,” says John Leigh, director of sustainability for Virginia Mason. “We are in the business of human well-being. Knowing climate change will have negative effects on the health of human beings, it would be unconscionable to not doing something about it as soon as possible.”

An ad hoc green team at Virginia Mason focuses on recycling, looking at ways to improve signage and locate recycling bins. Every effort is important because hospitals generate so much waste through single-use or disposable items for infection control.

“Patient safety will always trump waste generation,” he says. “It always will—and it should.”
The health care industry is responsible for 10 percent of the nation's total emissions in greenhouse gases, including the use of anesthetic gases. One of the biggest impacts of the efforts at Virginia Mason is a radical reduction in the use of desflurane. The available options are more sustainable and less expensive.

“One doctor got behind this work here with my predecessor,” Leigh says. “It just takes one champion to start asking questions in their department and pushing those who are reluctant to give it a try and see it can be done. ... That was one thing we could do without a lot of difficulty or fanfare.”

Leigh says his “grand plan” is for Virginia Mason to achieve carbon neutrality, which means taking action to remove as much carbon dioxide from the atmosphere as you put into it. That means spending money on upgrading equipment. Justifying the expense can be tough at a health care facility, he says.

“This is an industry with not a lot of surplus capital to perform important facility upgrades like this,” he says. “We tend to lose out on internal competition for capital improvements. It’s hard to compete against an MRI or another important piece of equipment.”

A quick win for individual physicians is to “green up” the supplies; use less in the first place wherever possible, and then challenge manufacturers and suppliers to find ways to move toward environmentally preferable products and packaging.

They can also look at whether any items in their clinics expire before they are used.

“Focusing on reducing waste can have a lot of environmental benefit,” he says. “Reducing 5 percent is pretty doable from my observation.”

**MultiCare Health Systems**

MultiCare has been focused on sustainability for at least a decade, and is the parent company to Washington state’s first green hospital, Good Samaritan Hospital Daily Tower in Puyallup. The system recently hired Tony Garcia, who ran the sustainability program at the Disneyland Resort for 10 years.

His early efforts are focusing on establishing task forces looking at technology, waste management, and water conservation. A sustainability committee of senior leaders steers the direction of the program.

The big wins in sustainability occur when senior executives see saving energy, water, and solid waste as a revenue stream, Garcia says.

“If you save costs on utilities, it’s the same as generating revenue,” he explained. “Cost cutting is nothing new in health care; this is a painless way to cut costs because you’re not affecting your service level, you’re reducing what you spend on a utility.”

The easiest way to reduce energy and water consumption, he says, is through technology and automation.

“Sometimes the hardest part is getting authorization to invest in technologies, but there is a lot of proven technology out there we can leverage,” he says.

For example, sensors help reduce energy use because they “don’t require someone to turn something on or off, so there’s no training required,” Garcia says. Software ensures air handlers work efficiently, filters are clean, and the system is sequenced accurately and calibrated for the use of each space.

Small changes can add up as well. LED lights use less energy, require far less maintenance, and provide better light quality than incandescent or fluorescent bulbs. Ultra-low-flow toilets reduce the water usage rate per fixture; if automatic flush valves are used, careful calibration could reduce the amount of false flushes.

One area that can make a big difference is space management, says Ron Fues, project director with construction engineering firm McKinstry, which works with MultiCare.

“Sometimes, as physicians, we are afraid of talking about controversial issues. There’s nothing controversial about this; the world is getting warmer. We should care about the children in front of us.”

—DR. MARKUS BOOS

“Your space changes all the time; an office could have once been a storage room or a waiting room,” he says. “What often gets overlooked is the HVAC system that supports that space. ... In some cases, spaces need to be adjusted for more or less air flow.”

If physicians lease a building, they should “be the squeaky wheel,” Fues says. “If you see that things are automatically on at weird hours, put in a work order. That’s an easy fix. If you own your own building, the EPA has a utility bill benchmarking tool (portfolioMANAGER.ENERGYSTAR.GOV). You should be benchmarking your building to see how your building compares on a per square foot basis versus other similar buildings.”

**Seattle Children’s Hospital**

A 2019 winner of the Practice Greenhealth Environmental Excellence Award, Seattle Children’s Hospital set several environmental goals in 2017 and achieved them within a year. Water use for irrigation was reduced by about a million gallons.

The hospital also increased a daily pay incentive to $4.50 to employees to carpool, bike, walk, or take public transit. Staff members who carpool or vanpool can park on campus. A shuttle is provided from the Link light rail station to the hospital.

“Asthma is always in our top 5 in admissions,” says Colleen Groll, manager of Seattle Children’s sustainability program. “When we get more staff out of their cars, we’re reducing pollution because in Seattle, transportation is the Number 1 emission.”

Pulmonologist Jonathan Cogen, MD, noted that many of his patients drive...
long distances to see him. He could help with that.

“One morning, four of my five patients came over from Yakima for a half-hour visit,” he says. “If I went out there, it would have cut those drives.”

Reducing waste reduces carbon emissions, so dermatologist Markus Boos, MD, changed the way he has his staff set up his trays for skin biopsies. “The nurses are great and they would set up these beautiful trays,” he says. “I would use half of it and the rest was thrown away. I had them put on the bare minimum and then hand me whatever else is needed.”

Physicians can help the environment and save money for their practices by properly disposing of medical waste.

“Some people think a piece of gauze with a little blood on it needs to go in the red waste bag,” he says. “Those bags are actually for things that are soaked with waste that can be expressed. Those items are a lot more involved to dispose of.”

Whether physicians have their own practices or work in a group or a hospital system, they can make a difference by speaking up.

“Sometimes, as physicians, we are afraid of talking about controversial issues,” he says. “There’s nothing controversial about this; the world is getting warmer. We should care about the children in front of us. That is a way to talk about it without getting on our high horse or use terms that are off putting. When I hear about climate change, it can feel overwhelming. What can I do as one person? As a society, everybody’s voice matters.”

Pat Curry is WSMA Reports’ senior editor.
It’s so nice to have one person throughout your entire claim, who knows your story -- your personal story -- and its impact on you throughout the process. It’s amazing to be treated like this.

Angela Chien, MD
Obstetrics & Gynecology
Kirkland, WA
National data indicates that more than one-third of all malpractice claims and lawsuits allege a failure to obtain informed consent. Actions based solely on issues of informed consent are rare; commonly, informed-consent claims are coupled with allegations of negligence. As an entirely distinct legal theory, failure to obtain informed consent can result in physician liability regardless of whether the standard of care is met.

A 26-year-old female athlete was hospitalized for a severe staph infection involving her left foot. Her attending physician ordered IV administration of 5 mg/kg of gentamicin (a potent antibiotic) every eight hours, with close monitoring of serum levels to avoid toxicity. The physician was aware that the drug had potential serious adverse effects, including nephrotoxicity, otoxicity, and vestibular toxicity, the latter of which can result in ataxia and oscillopsia.

On the 11th day of hospitalization, the patient had improved markedly. Discharge within 24 to 48 hours was anticipated. However, later that evening, the patient experienced difficulty walking, reporting a sense of “feeling uncoordinated.” A nursing assistant had to help her back to her bed. The physician was notified.

The following morning, the patient had similar difficulties attempting to walk. Her physician immediately suspected gentamicin-related toxicity, though serum levels had remained within, or very close to, the desired therapeutic range. The physician immediately ordered a change of antibiotic, discontinuing gentamicin.

The patient’s problems with muscle coordination persisted. It was later determined that gentamicin toxicity had resulted in irreversible damage to the vestibular labyrinth. When discharged from the hospital, the patient required a cane to steady her gait. There were no signs of infection, nor any indication of permanent damage to the structures of the foot.

Case evaluation
One year after discharge, the patient named the physician in a lawsuit. On issues of standard of care, the suit alleged that gentamicin dosages were excessive and blood monitoring inadequate. The defense conceded that gentamicin had caused the harm to the plaintiff, but vigorously contested the notion that negli-
The defendant physician recalled mentioning to the patient that he had selected the potent antibiotic because of its proven track record. He was uncertain if he had mentioned possible side effects, but “might well have.”

gence had been involved. Despite the patient outcome, plaintiff experts floundered in their efforts to provide convincing evidence that the defendant had deviated from acceptable standards of practice.

The plaintiff’s second legal theory was that the defendant had failed to obtain informed consent. She testified that her physician had told her nothing of the risks of gentamicin therapy, nor had he mentioned any alternatives.

She recalled that he had told her that gentamicin was a “heavy-duty” antibiotic, necessary because of the severity and type of the infection. However, “heavy-duty” did not suggest to her that the drug carried any special risks. The plaintiff said she trusted her doctor, and it had never occurred to her to ask questions about the antibiotic. She merely asked the defendant if her foot would be OK and how long she would have to stay in the hospital.

Her physician offered general reassurance, which she appreciated at the time, but no specific information. She said he seemed “very caring.” She had felt that if there were something she needed to know, her doctor or the nurses would have told her. The plaintiff testified that she “devoutly” wished the defendant had told her that there were “less risky” antibiotics that might have worked. She said she would have told her doctor to try something other than gentamicin.

Plaintiff experts agreed, under cross examination, that gentamicin was not contraindicated or inappropriate—“it worked”—but were firm on the point that it was not the sole antibiotic suitable to combat this infection. “There are other weapons in the arsenal,” they said, and the patient should have been told.

These same experts told the jury that, in their opinion, the defendant had a “clear duty” to tell the patient about the “considerable risks” of kidney damage, hearing loss, and ataxia. If the defendant had done this, a “decent discussion” about alternatives might have followed. Medical experts on both sides provided testimony concerning the statistical probability of the harm that had befallen the patient and information about the likely severity of such injuries.

The defendant physician recalled mentioning to the patient that he had selected gentamicin because it was a potent antibiotic with a proven record against staph infections. He was uncertain if he had mentioned possible side effects, but “might well have.”

He was forced to admit that nothing in the medical records indicated the patient was told anything specific about gentamicin. When the questioning turned to therapeutic alternatives, the physician acknowledged that he “probably didn’t go into that ...” He would have had a discussion with the patient about other antibiotics had it appeared that gentamicin was proving ineffective, but that was not the case.

After weeks of testimony and lengthy deliberation, the jury returned its verdict: The defendant had not violated the standard of care, but had failed to obtain the plaintiff’s informed consent. The jury found that information concerning risks of gentamicin and treatment alternatives was “material” and should have been disclosed.

If the required disclosure had taken place, the jury found that a reasonable patient would have, more probably than not, elected one of the options. Had one of the alternative antibiotics been chosen, the plaintiff would have avoided the damage to her vestibular system and would not have suffered from ataxia.

As noted, informed-consent claims are most often paired with allegations of negligence. However, failure to obtain informed consent can result in liability action, regardless of whether the standard of care is met.
**Climate Change Makes People Sick**

We’re seeing the effects of climate change in our state through air pollution, extreme heat, water quality, increasing allergens, environmental degradation, severe weather, impact on water and food supply, and changes in vector ecology. Washingtonians are experiencing the associated health impacts, and researchers report that those numbers are sure to increase in the years ahead.

*Source: University of Washington Climate Impacts Group*

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<th>Statistic</th>
<th>Description</th>
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<tr>
<td><strong>17%</strong></td>
<td>The projected increase of ozone-related deaths in Spokane County by mid-century.</td>
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<td><strong>28% &amp; 18%</strong></td>
<td>Percent of increased local emergency department visits for cardiovascular and respiratory diseases (respectively) during and after 2012 North-Central Washington wildfires.</td>
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<td><strong>516k &amp; 102k</strong></td>
<td>Number of Washington adults and children (respectively) who have asthma, which may worsen with a longer allergy season.</td>
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<tr>
<td><strong>100</strong></td>
<td>Projected number of deaths per year of individuals over 45 in the Seattle area due to extreme heat events.</td>
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<tr>
<td><strong>6,000+</strong></td>
<td>Number of Washingtonians sickened annually by V. parahaemolyticus, a bacterium associated with eating shellfish that increases markedly when ocean temperatures increase.</td>
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Sound the Alarm

A generation ago, physicians spoke up about the dangers of smoking. Cardiologist Mark Vossler, MD, says it’s time to start talking about climate change.

It’s critical that we deliver a health message that helps prevent the worst impacts of a warming world.

On the hottest day last summer, a patient left my clinic after a routine visit. As he was driving home during rush hour on I-405, his car broke down. While waiting for help, he developed chest pain, called 911, and was rushed back to our emergency room. His EKG and lab tests were consistent with a myocardial infarction, but his coronary angiogram was identical to one from six months prior. His heart attack was caused by heat stress.

Clearly, the health impacts of climate change are real. As physicians, we strive to act in our patients’ best interests, delivering advice based on the current state of medical science and our best judgment. Our words often take time to sink in: “Stop smoking, lose weight, exercise, take your blood pressure meds every day, get vaccinated.” It’s time to add “act on climate change” to that list.

It is every physician’s responsibility to inform patients about issues that affect their health, to make recommendations about treatment, and about prevention when treatment alone is likely to be inadequate. Now more than ever, it’s critical that we deliver a health message that helps prevent the worst impacts of a warming world and prepares patients to cope with the changing patterns of injury and disease that climate disruption will bring.

The health impacts of burning fossil fuels are not limited to carbon emissions and atmospheric warming. Co-pollutants, such as small particulate matter, nitric oxide, and sulfur dioxide, also pose serious risks, including exacerbation of asthma and COPD, atherosclerotic heart disease, stroke, several cancers, and abnormal fetal development. While the benefits of reducing carbon emissions may take longer to realize, the benefits of reducing other air pollutants are immediate.

The growing body of medical literature on the health impacts of burning fossil fuels, and the increasing incidence locally of heat, smoke, and asthma-related patient visits, should galvanize the medical community into action. Yet for a variety of reasons, many physicians feel it is inappropriate or are fearful to professionally comment, be involved, take action, or speak out.

But there should be no divide about what is indisputably a health issue. The fossil fuel industry and its supporters sow doubt about the science, just as the tobacco industry did a generation ago. But like today’s threats of climate change, the real hazards of smoking were clear, and physicians spoke up. We were firm in our resolve and united in our message about the adverse effects of tobacco then. Now it’s time to take the same strong stance toward reducing dirty, polluting energy.

The unique credibility and trustworthiness we experience as physicians is a privilege. We can, and should, be trusted advocates for policies that protect health. That includes keeping our patients healthy, in addition to promoting clean, renewable energy and preventing new polluting fossil fuel projects.

Let’s do our part to learn more and to work toward making the world a better, safer, healthier place for our patients and communities for today and tomorrow.

Mark Vossler, MD, is a practicing cardiologist in Kirkland, chairman of the cardiology section at EvergreenHealth, president of Washington Physicians for Social Responsibility, and a member of the WSMA House of Delegates.

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