

by *Jim Dean*

the KOOP INSTITUTE

Challenging the Status Quo to Advance Public Health

Upon entering the C. Everett Koop Institute at Dartmouth's Norris Cotton Cancer Center, visitors are greeted by an oversized mural of the late Dr. Koop D '37 that is befitting of his stature. To many, he was—during his brilliant career as a pioneer in the field of pediatric surgery, and later as perhaps the most influential surgeon general in U.S. history—larger than life.

AMONG KOOP'S AMBITIONS when he returned to Dartmouth in 1992 to establish the Koop Institute, were "...to celebrate the lineage of the profession he loved by forming what he envisioned as a guild... To build bridges between public health and medicine... (and) attack some of the most vexing behavioral problems facing the nation..." wrote Joseph O'Donnell, MD, former senior advising dean at the Geisel School of Medicine and senior scholar at the Koop Institute, in a tribute to his colleague after Koop passed in 2013. "He spoke the truth candidly and powerfully and was a hero for his courage to take on public health issues."

Nowhere was this more evident than in Koop's stand against the tobacco industry and his tireless efforts to educate the public about the dangers of smoking and its causal links to cancer, heart disease, stroke, and other diseases.

Today, the Koop Institute is comprised of a group of diversely trained yet highly collaborative investigators working to build on his example and keep his legacy alive. Their mission is to advance health and well-being through research, education, and policy efforts to protect public health and prevent disease—by mitigating threats posed by

the unhealthy promotion and use of consumer products.

"We want people to understand that many of the chronic diseases we face today—heart disease, lung cancer, obesity, diabetes, and even prescription drug abuse—cannot be adequately addressed by the medical model alone," explains James Sargent, MD, who directs the Koop Institute and is the Scott M. and Lisa G. Stuart Professor of Pediatric Oncology at Geisel.

"We can treat these diseases, but it's not going to keep them from overloading our medical system," continues Sargent, who also co-directs the Cancer Control Program at Dartmouth's Cancer Center and is an authority on the impact of mass media on risky behavior in childhood and adolescence. "We must also prevent them by decreasing exposures to products that are their root cause—products like tobacco, alcohol, junk food, and prescription opiates like OxyContin. To succeed, we need government to embrace the responsibility of seriously regulating these unhealthy commodities."

One major research effort at Dartmouth regarding corporate influence on behavior began nearly 20 years ago



Research colleagues (left to right) Auden McClure, James Sargent, and Susanne Tanski by the mural of Dr. C. Everett Koop that greets visitors to the Koop Institute at Dartmouth's Norris Cotton Cancer Center.

with research conducted by Sargent and his colleagues, looking at the relationship between smoking in movies and uptake of smoking by youth.

While paid product placement of cigarettes in movies has been banned since 1998 with the Master Settlement Agreement between major cigarette manufacturers and State Attorneys General, there remains a great deal of smoking in movies. Due to the strength of the Dartmouth-based research, smoking in movies has been recognized as a risk for youth smoking, with the 2012 Surgeon General Report concluding there is a causal relationship. Additional nationwide advocacy efforts have led to inclusion of smoking within the Motion Picture Association of America film rating system.

But on the tobacco-related front, Koop Institute investigators are facing a shifting landscape and new challenges with the introduction of products like electronic cigarettes, which have seen less regulation. When demographer Samir Soneji, PhD, attended an international e-cigarette conference last year to present some of his research findings, e-cigarette enthusiasts in the audience booed him.

"I was a bit surprised, but I wasn't insulted—my work and my findings are antithetic to the industry's message," says Soneji, an associate professor at The Dartmouth Institute for Health Policy and Clinical Practice, whose research interests include tobacco regulatory control, longevity, and cancer screening. "Some people passionately believe that e-cigarettes can serve a 'harm reduction' role in helping adult smokers quit. But the promised benefits around cessation just haven't been born out in any large studies."

To make matters worse, e-cigarettes may very well be causing unintended harm to children and adolescents. "One of the most concerning findings from our research at Dartmouth, which has been corroborated by many other studies, is that kids who 'vape' are at much higher risk to begin smoking, especially those we would normally consider to be 'low-risk,'" Soneji says.

"And kids are drawn to e-cigarettes because of the flavors that are offered, like grape, cherry, and chocolate, and because they see attractive and well-known media figures using these products in television advertisements and hip-hop videos."

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It's becoming clear, he says, that e-cigarette use is a new and important adolescent health risk factor, joining traditional risk factors like peer smoking and parental smoking, which may ultimately lead to premature death from diseases related to smoking.

That's why the work of investigators at the Koop Institute and the Cancer Center is focused on introducing primary prevention and health promotion as early as possible. "Brain development research tells us that if we can prevent kids from exposure to nicotine, particularly when they're adolescents, they're much less likely to become addicted," says Susanne Tanski, MD, MPH, an associate director of the Koop Institute and associate professor of pediatrics at Geisel, who has recently been engaged in advocacy work in New Hampshire to raise the legal age for tobacco purchases to 21.

"Not surprisingly, there's opposition to it from local stores who don't want to lose sales, and from current smokers (age 18 and older)," says Tanski, "But if we can convince our legislature that this would be a healthy idea for the state and the future of our citizens, we're going to do a lot of good."

As a practicing pediatrician at the Children's Hospital at Dartmouth-Hitchcock (CHaD) and member of the Cancer Center's Cancer Risk Behaviors Group, whose research includes visual media influences on adolescent smoking and drinking, Tanski talks to her families about media as an influence on kids. "We know from the body of research here that media is incredibly persuasive—like a 'super peer' that substantially influences the way kids think about products like e-cigarettes and alcohol. So, it's important that parents recognize where kids get exposed to advertising, what the messages are, and how to mitigate the exposure."

And in today's rapidly evolving media landscape, there are many more ways for kids (armed with smartphones and other devices) to be influenced. "For example, there are voluntary regulations from the alcohol industry about marketing to youth, but the flip side is those

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marketing messages are out there, and the internet gives kids a broader access to the world," says Auden McClure, MD, MPH, an assistant professor of pediatrics and of health policy and clinical practice, whose research has been primarily focused on understanding and assessing new media alcohol marketing and its impact on adolescent drinking.

"Our work is showing that many kids are engaging with on-line alcohol marketing, and that these exposures may increase their susceptibility to underage drinking," she says. "Our research aims to better understand these exposures and their impact on youth."

As a clinician—McClure is a pediatrician at CHaD and directs its Pediatric Lipid and Weight Management and Culinary Medicine programs—she spends most of her time in the Dartmouth-Hitchcock Weight & Wellness Center working with families on prevention and management of pediatric



Working as a Koop Scholar provides valuable research experience in areas like "learning about how parents communicate with their kids about media use and things that kids see in the media—such as violence, sexual behavior, and substance use," says recent Dartmouth graduate Zoe Brennan D '16.

Jon Gilbert Fox



James Sargent, MD, director of the C. Everett Koop Institute, teaching a course to Dartmouth undergraduate students about the impact of mass media on adolescent risk behaviors.

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children’s brains are more responsive to food advertisements, making them more prone to overeating and developing excess weight.

The group has also looked at deceptive advertising strategies—such as the use of toy giveaways—and how they violate companies’ own guidelines on marketing. “You know, we often hear companies that make unhealthy products say, ‘Don’t worry about us, we’re socially responsible,’ and, ‘We can regulate our own behavior,’” says Sargent. “But history has shown us that corporations will not voluntarily restrict practices, like marketing, that increase product sales.

“Corporations serve an important function in our society—they organize capital and labor to produce products and services,” he says. “Their primary responsibility is to return profits to shareholders, not to make the world a better place. When corporate products are really bad for health, their consumption should be regulated, and such regulation is an essential function of good government.”

Being engaged in research, education, and policy work that so often challenges big corporations and their powerful lobbies, can sometimes feel a bit like “David going up against Goliath,” admits Sargent. “Like curing cancer, it’s a monumental task, and one we should engage with the same energy and enthusiasm. We’re proud to be doing this work in Koop’s honor. I think you’d be hard-pressed to find another group at an American medical school that focuses on the issue of unhealthy consumable products with the same kind of rigor and intensity that we do.”

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obesity, which includes helping them to translate nutritional recommendations into daily routines. The culinary program provides participants with practical skills like cooking, shopping, and meal planning to make healthier choices easier and more affordable for families.

“If we can help promote healthy behaviors from birth onward, and particularly in our adolescents, where they’re starting to make their own decisions, then I think we can have impact over the life course,” she says. “But we want to make sure we’re recommending the right things, and I think that’s where the strength of our research programs at the Koop Institute come in.”

For a number of years, Dartmouth investigators have been studying how food companies advertise their products to children—particularly fast foods that are engineered to be delicious, convenient, and calorie-dense—and how that influences their diets. Importantly, this research includes studies led by Koop Institute Associate Director Diane Gilbert-Diamond, ScD, which show that some