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167th Cutter Lecture on Preventive Medicine
Public Health, Science and Society: Are we at a Crossroads?
May 2, 2018
Dr. Hamburg is a former Commissioner of the U.S. Food and Drug Administration, where she was known for advancing regulatory science, modernizing regulatory pathways, and globalization of the agency. Before this, she was founding vice president and senior scientist at the Nucleo-Association for the Advancement of Science.

Other positions have included Assistant Secretary for Planning and Evaluation (HHS), Health Commissioner for New York City, and Assistant Director of the National Institute of Allergy and Infectious Disease. Dr. Hamburg is a graduate of Harvard College and Harvard Medical School.

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Public Health, Science, and Society: Are We at the Crossroads?

Dr. Margaret Hamburg presented the 167th Cutter Lecture on May 2, 2018, at the Harvard T.H. Chan School of Public Health. She followed in the footsteps of Dr. William Hart, the very first Cutter lecturer, not only in delivering the oldest and most prestigious lecture series in preventive medicine but also in serving as commissioner of the New York City Department of Health. Here, Hamburg launched her career in public health... much to the chagrin of her dear Aunt Winnie, who did not understand why Hamburg was not choosing to become a “real doctor.” A lot has changed since Hart delivered the Cutter Lecture on March 13, 1912. Thanks to live streaming, thousands of listeners—in addition to those in attendance—were able to tune in to hear Hamburg’s remarks last month. Opting for a career in public health, where the opportunities for impact reach well beyond the confines of any single professional discipline, Hamburg began her quest in the early nineties, addressing the health needs of nearly eight million New Yorkers. Subsequently, she broadened her scope to protect hundreds of millions of Americans as Assistant Secretary for Planning and Evaluation in the U.S. Department of Health and Human Services in the Clinton administration, and later as FDA Commissioner under President Obama.

The Lethal Devaluation of Science-Based Decision Making

While admittedly not a “card-carrying epidemiologist,” Hamburg appreciates the discipline’s focus on the relevance of data and leveraging the best available science for public health program and policy decisions. Science and technology drive the innovation required to address society’s most daunting and critical global challenges, including disease, poverty, food safety, water scarcity, climate change, terrorism, and global security, to name a few. One of the biggest obstacles faced by those intent on harnessing and advancing science to improve society’s plight is the expanding culture of post-truth and denialism. While science will always be a dynamic process that inherently incorporates some failure and uncertainty, and therefore skepticism, Hamburg is deeply troubled by the surge of outright disregard for proven facts and the accompanying rejection of tangible evidence.

Post-truth: circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief
-Oxford English Dictionary 2016 Word of the Year

Hamburg cited South Africa’s rejection of scientific evidence showing HIV as the cause of AIDS nearly two decades ago as one of the most egregious examples of the post-truth mindset in recent history. Between 2000 and 2005, an estimated 330,000 deaths resulted from this tragic case of science denialism and misguided conclusions.

Another flavor of denialism, known as confirmation bias, involves the tendency to selectively embrace information that supports existing or predelus seven beliefs while discrediting or rejecting input that contradicts one’s values. This phenomenon seems to intensify amid politically or emotionally charged issues, regardless of how many facts have been mobilized. The documented partisan polarization related to global warming, for example, has widened despite growing evidence. Turns out that sometimes more educated and knowledgeable people are less persuadable and more likely to be biased.

Staying on Course

Recalling her days at the FDA, continuously trying to navigate complex environments influenced by politics, stakeholder pressure, and competing priorities, Hamburg noted that no matter how slippery the slope may sometimes seem, data integrity must always prevail as the “north star.” Researchers, scientists, medical practitioners, and policymakers must rely on truth as their guidepost to stay on course and effectively address evolving and emerging challenges in public health. Decisions shaped by facts and evidence drive innovative solutions. Analysis and evaluation of proposed healthcare products and services require rigorous scientific processes for comprehensive understanding of potential short- and long-term impacts, risks, and benefits, as well as scalability when a prototype transitions into a real-world product designed for broad distribution. Regulatory science research and evidence serve as the bridge that translates a breakthrough discovery into a product that will change lives.

Real Facts Matter

Debunking the perception that the FDA acts as a barrier to innovation, Hamburg emphasized that it is gaps in scientific understanding of the underlying causes of disease—not excessive government regulatory standards or demands for data—that impede the process of developing and distributing effective drug therapies and treatments for complex afflictions like Alzheimer’s Disease. Hamburg urged all of those working in public health—across government agencies, academia, and the private sector—to come together, stand up for science integrity, and slow the spread of denialism.

“As every good epidemiologist knows, few things are more vital than relying on science and data to drive decision-making. A relentless commitment to scientific integrity must be the essential cornerstone of everything we do in public health. Thoughtful investigation, careful data collection, rigorous statistical analysis, and thorough consideration of all the best available evidence will enable the continuous expansion of our knowledge base.”
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