Influential Department Of Epidemiology At Buffalo Celebrates 100 Years Of Public Health Contributions

Chair Jo Freudenheim Tells The Department's Story In Our Interview Below

The Department of Epidemiology and Environmental Health at the University of Buffalo is celebrating 100 years of contributions to the health of Buffalo, the region, the nation, and the world. We were surprised to learn about the long history of the Department and contacted Jo Freudenheim, the current chair of the Department, to get an insider's view of the history and the events of the celebration. Here are our questions and Dr Freudenheim's responses

Epi Monitor: There are not many schools or departments of public health that are 100 years old. We know that Hopkins and Harvard are among the earliest to move in that direction, but I was surprised that Buffalo was in that category. Assuming I am correct, what do you think explains the creation of your department before many others? Are the factors the same or different than the other early departments that were founded?

Freudenheim: That Buffalo was among the first to have a department focused on public health is not so surprising. When the department was founded in 1919, Buffalo was one of the largest cities in the US and it was a center of industry and innovation, including health innovation. Founded in 1846, the University at Buffalo was originally solely a medical school and was among the earliest medical schools in the US. The first cancer research center in the world was in Buffalo, founded in 1898, becoming what is today the Roswell Park Comprehensive Cancer Center. The Roswell cancer hospital opened in 1913. In 1918, the Buffalo city hospital opened.

Clearly the period around 1919 was a time of huge development in health and health delivery innovation in the region. In addition, there was at that time a history of epidemiology and public health in Buffalo. As early as the 1840's, there was a published investigation of an outbreak of fever by Austin Flint, a UB faculty member. Flint's research contributed to John Snow's realization that water could transmit communicable disease and Snow referred to Flint's work in his publication on cholera. Even before the department was created, there were courses in public health offered to the medical students and in 1913 a division of Hygiene and Sanitation was formed.

When the department was founded, it was called the Department of Hygiene and Public Health, providing the nexus for public health for the medical school. While I am not certain what the motivation was for the formation of the department in 1919, it is likely that a contributing factor was the 1918 influenza pandemic. The outbreak in Buffalo was substantial, requiring a strong public health response including quarantines, and likely resulting in an increased appreciation of the importance of epidemiology and public health.

Epi Monitor: What is some of the thinking that went into the decision to celebrate the 100th anniversary? Is there a main anticipated benefit?

Freudenheim: We are celebrating the 100th because it will be a long time until we can have another such celebration! We think it is important to take a step back, to understand where we are coming from so that we have new perspective on where to go next. Putting together the history has been a great opportunity to see all that has gone on in Buffalo that has impacted health both in the region and more generally. We are hoping that this celebration is an opportunity for our alumni and all the faculty and staff who have been associated with the department to have a chance to reflect on all that has been accomplished. This relatively small department has had a disproportionate impact on epidemiology and public health.

Epi Monitor: Your department has had multiple different names over the past 100 years. One that is particularly striking is going from the Social and Preventive Medicine Department to the Department of Epidemiology and Environmental Health. In years past it seems that Buffalo was most widely recognized for the Social component, but that element was dropped from the name. Can you comment on the change in name and the reasons for it?

Freudenheim: There is a great deal of wonderful history attached to the previous name, Social and Preventive Medicine (SPM). We were SPM from 1967 until 2014 when we became the Department of Epidemiology and Environmental Health (EEH). As a department, we spent a lot of time and had many discussions in the course of changing our name. In the end, we decided that EEH was more representative of who we are now and the focus of our work. We continue to have an interest in the topics that are included under the social and preventive medicine umbrella. However, there are now faculty doing work in a broader scope of epidemiology--molecular and genetic epidemiology focused work, for example. In addition, there are two additional divisions within the department—one in Environmental Health and one in Health Services Policy and Practice—and we wanted the name to better represent that diversity of focus.

Epi Monitor: The information material about the anniversary event notes that several famous epidemiologists of the past had some affiliation with Buffalo. Names like Graham, Lilienfeld, Terris, Winkelstein and others. Has Buffalo been an above average magnet for epidemiologists or training ground for epidemiologists? If so, what reasons do you think might account for that?

Freudenheim: As I mentioned above, our department has always been a relatively small one. Nonetheless, it has attracted major epidemiologists—outstanding faculty, researchers and students. In addition to the individuals you list, a disproportionate number of leaders in the field have been educated in Buffalo—including deans, chairs, leading government researchers, presidents of the major organizations. I would say, yes, Buffalo has been well above average as a magnet for faculty and as a training ground.

I think that the attraction was the intellectual environment and the culture of innovation which attracted strong researchers to the work that was being done here. The outstanding leaders in the department have nurtured their mentees to do outstanding work and to take leadership in the field.

Further, in the last 100 years, there has been important synergy of public health and epidemiology between UB and Roswell Park, both the surgeon by that name who founded the cancer center and also the cancer center itself. That relationship continues and increases in strength, as we continue to work together to educate the leaders of the future.

Epi Monitor: Where does Buffalo rank today among a much larger universe of Schools of Public Health and what are the areas of greatest expertise or emphasis?

Freudenheim: As noted above, we are a relatively small but very strong department. Research in the department still includes nutrition and on cancer, both long focus areas of the department. In addition, we are engaged in important research on cardiovascular disease, aging, particularly among postmenopausal women, eye disease, child growth and development, and pregnancy. In addition, there is research on global health, air pollution, heavy metal exposures, physical activity, health disparities, genetics, pesticides, the microbiome, health services and access to care. The department is thriving and growing in exciting new directions.

Epi Monitor: The special lecture during your event will be the Saxon Graham Lecture. For persons unfamiliar with his work, can you give a brief account of why Dr Graham is is honored in this way?

Freudenheim: Dr. Graham was an internationally known cancer epidemiologist, best known for his groundbreaking studies on diet and cancer. He started those studies beginning in the 1950s, at a time when the prevailing wisdom was that it was not possible to include diet in an epidemiologic study. He was a longtime UB professor and was chair of the department from 1981-1991. Dr. Graham was an incredible mentor, providing guidance to a generation of epidemiologists as well as serving as a role model with his leadership in the field. He was an innovative thinker, for example, applying a thoughtful discussion of the science of creativity to epidemiology in his SER Presidential address in 1987. Dr. John Vena, Professor and Founding Chair of the Department of Public Health Sciences at the Medical University of South Carolina will give the Saxon Graham lecture this year. John received his PhD degree from our department and was a faculty member here 1981-2003.

Epi Monitor: You are hosting a symposium as part of your celebration. Can you say a little something about the speakers and the topics that were chosen for this occasion? Is there a common underlying theme?

Freudenheim: The focus of the celebration is on both epidemiologic research in the last 100 years and new directions for epidemiology for the future. As noted above, the celebration starts with the Saxon Graham lecture given by John Vena. For the symposium, Dr. Moyses Szklo will give a plenary talk. The symposium showcases some of the history of the research that has come out of the department as well as new directions for that research. Speakers will include Drs. Germaine Louis, Dean of the College of Health and Human Services at George Mason University, Brian King, Director of Research Translation, Office on Smoking and Health at CDC and Shauna Zorich, Clinical Assistant Professor in EEH at UB. All are EEH alumni. In addition, James Marshall, Professor Emeritus, Roswell Park Comprehensive Cancer Institute, a former EEH faculty member and Laura Smith, a current EEH faculty member, will give talks.

Epi Monitor: What would you like colleagues at other Schools of Public Health to takeaway from your celebration event?

Freudenheim: I think that it is important to have a sense of the history of public health, to understand the factors that brought us to where we are today. Some things have changed enormously in our field in the last several years—such as the ability to handle extremely large data sets, the integration of molecular analyses with other epidemiologic data. Even these changes have roots in how we tried to improve the public health throughout the last 100 years.

In addition, there are some things that have changed little—we are still concerned about the possibility of a major flu pandemic. We are still struggling with other infectious disease outbreaks such as the measles outbreak. We are still trying to understand how complex factors such as diet, the environment, physical activity, and access to care impact morbidity and mortality. Our view of public health is increasingly global as we better recognize how the health of populations everywhere impacts health throughout the world. It is extremely important to understand where we have come from and what we have accomplished as we look to the future to address these challenges and the ones that we cannot even yet imagine. ■

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