In this set of slides we want to present a brief history of public health and how that has really contributed to our understanding of social determinants of health. We are not going to go into a whole lot of detail on the history of public health. This is not a history of public health course, but understanding the history may put into some perspective how public health has gone back and forth -- between focusing on social determinants almost as a field and, at one point in time, turning away from social determinants entirely. Over the past 20 years or so we have come back to recognizing the importance of social determinants. We will touch on some of the reasons why that has occurred.
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References

  - Chapter 1: An historical framework for social epidemiology
As I hope you know, the roots of public health and epidemiology go back a long way, to Hippocrates and others of that era who really started to understand the linkage between disease and environmental causes. They didn’t understand it nearly as well we understand it now of course. That is the basis upon which epidemiology really developed -- trying to figure out the etiology, the causes and determinants of diseases. That was also the root of what we know now today as public health.
As public health developed over the centuries, we got to the point in the 19th and 20th century where we started learning much more about the causes of disease and ways of preventing disease overall. There were great advances in disease control -- cholera, typhoid fever, yellow fever, smallpox, and malaria. Yellow fever and malaria particularly were very common here in Arkansas, major issues that were faced even as recently as a hundred years ago. Public health has made tremendous strides in dealing with those issues. As public health evolved, practitioners realized that the root causes of many of the diseases they were facing was poor sanitation. Efforts to improve sanitation became common, and vaccination programs were developed as well. Antibiotics were developed during the late 19th and early 20th century. But environmental interventions were key. For Malaria, it was putting screens on people’s windows to keep the mosquitoes out, draining the standing water, and other environmental strategies to reduce the likelihood of being exposed to a mosquito bite. For hookworm disease, which was also common in Arkansas, it was a matter of sanitation, limiting exposure to feces on the ground by building outhouses and using other strategies to control waste products and getting people to wear shoes so that they didn’t step in the feces and then get exposed to the larvae.
As epidemiology was developing as a science during the 18th, 19th, and early 20th centuries, public health practice was starting to emerge throughout the world. It was really largely focused around port cities because you had sailors arriving on ships, sailors who were infected with different types of communicable diseases that they then shared with the port city’s population. You also had rats on the arriving ships. After the ships tied up at the docks, the rats would work their way down the ropes and get on shore and carry diseases to those port cities. So the port cities were a major source of concern for emerging health problems. To address some of these issues, public health practitioners responded with new policies and strategies, such as quarantine of persons suspected of having a communicable disease.

People also became aware of the risks involved in burying persons who were infected and how diseases might be transmitted through graveyards. Tanneries also became a focus of concern. Tannery workers were exposed to a variety of very unhealthy chemicals, so efforts were made to improve working conditions and reduce their exposure. Slaughter houses also began being inspected and regulated because of evidence that disease was being transmitted both through the slaughtering practices, improper handling of the meat after slaughter, and the presence of rancid meat.
In this country around the turn of the 20th century, people were more and more organizing public health practice initiatives to translate into practice what had been about the determinants of disease. In 1901, Walter Reed was the very first to recognize how yellow fever is a vector borne disease and could be spread by mosquitoes and how limiting exposure to mosquitoes can reduce people's risk overall for developing yellow fever. The Spanish-American War occurred. There was great concern about yellow fever, particularly in Havana. During the construction of the Panama Canal, yellow fever was virtually eliminated by good public health practice.

The John D. Rockefeller Foundation also became very active in the early 20th century; they really focused on southern states and some of the problems that were endemic to Arkansas and other southern states. Hookworm disease, as we mentioned before, was very prevalent in Arkansas and other southern states and there were major efforts to focus on sanitary practices, building of outhouses to contain human waste, and getting people to wear shoes and really clean up their environments. There were malaria initiatives and others occurring at that time, many funded by the Rockefeller Foundation and serving as a major impetus in getting people to think about prevention.
Public health practice continued to evolve in the United States with the development of the US Marine Hospital Service which eventually evolved into the US Public Health Service to study the etiology and spread of diseases. Public health increasingly became a matter of social reform and advocating for improved housing, better living conditions, abolition of child labor, improved sanitary conditions, and improved work conditions, particularly in settings where there were clear relationships between occupational hazards, work conditions, and disease.
So public health, in the early 20th century, was seen as an agent of science. It was really focused on developing the science, primarily epidemiology, but intervention more and more had become part of what public health practice was about. It was also involved in promoting social, economic, and political reforms. At this time, the discoveries of Louis Pasteur really emerged and Joseph Lister, Robert Koch, and others in late 19th century really important in the areas of bacteriology and medicine overall. People really began to understand the contribution of germs to illness.
This statement really describes the phenomenon that was happening at the time, with public health and medicine both veering away from the social determinants of health and prevention and focusing more intensely on bacteriology, illness, and more and more the prevention of illness through vaccines and the treatment of illness.

The quote reads: “READ QUOTE HERE”
I think these statements by Fairchild also really capture what was going on in public health education at the time (the early 20th century). Welch, the first dean of the Johns Hopkins School of Hygiene and Public Health, the first school of public health in this country, really recognized the contribution of housing, sanitation, and social determinants of health to people’s health but, nonetheless, advocated that those social determinants should really be the purview of other fields, such as engineering, social work, and urban planning. He advocated for public health being focused on the laboratory.

The quotes read: …
As public health developed over the next decades, we saw in the 1940s for the first time that the major sources of morbidity and mortality were no longer infectious disease. This was in large part because public health had made an effort to control infectious disease and perinatal mortality. Now, for the first time, chronic disease emerged as the major source of morbidity and mortality. The most important diseases and conditions became coronary heart disease, cancer, strokes, injuries, and perinatal complications. Thus, in the mid-20th century, people began to recognize the need focus on the chronic diseases that had become the major problems in the population overall.
While these changes were occurring in public health, there was, concurrently, the evolution of social and behavioral sciences focusing on people’s health risks. Out of that development has emerged a number of different health professions, including those listed here. (That is, medical sociology, medical anthropology, psychology (clinical psychology, health psychology, and community psychology), health education, and health behavior)
In the 1940s and 50s, and even dating back as far as the 30s, there were a number of social scientists who focused on the psychosocial causes of disease and different theoretical models to try to explain the relationships. We will talk more specifically about some of these issues in later modules. Briefly, however, there were a number of popular explanatory models such as the weak organ-stress model, many times referred to as the diathesis-stress model, with the basic tenant being that stress in the environment and the individual causes the breakdown of the weak organ. People became very interested in stressful life events and their relationship to different health outcomes.

Personality theories emerged with the hypothesis that an individual’s personality predisposed them to organ system breakdowns and disease within those organs. Type A behavior emerged as a concept in the heart disease literature after the observation, during the 1950s, that people with heart disease seemed to have a behavioral pattern in common. A sense of time urgency, impatience, and rapid pressured speech were common characteristics of the Type A person.

Later, people began to study negative emotions, such as anger, hostility, anxiety, and depression, to find associations between those emotional states and disease. Psychobiological and psychophysiological conceptualizations also emerged at this time. So there were two parallel developments during the mid- and late 20th
century, as both epidemiology emerged as a numerically-based science and the social sciences interested in health outcomes evolved, almost independently and in parallel.
So you had social scientists and public health epidemiologists almost working on parallel tracks, trying to understand disease. However, their view of social determinants of health, at that point in time, was very limited, particularly in comparison to the views of many public health scientists and practitioners today. During the 60s and 70s, these people started talking to one another. For example, cardiologists, like Friedman and Rosenman, who developed the Type A concept looking at personality type, started thinking about how psychosocial issues and the behavior patterns that they saw influenced people’s risk of developing heart disease. And a lot of social scientists started wanting to know more about epidemiology and to be part of studies that looked at the risk factors for diseases. They focused mostly on heart disease, cancer and stroke in that era, and looked at the different psychosocial factors that could be studied to really determine the contribution of psychosocial characteristics to what people were experiencing. A lot of cross-training occurred as a result of these inter-disciplinary collaborations. Today, the study of social determinants is a very multidisciplinary endeavor.
Thought questions

- What did you read or hear in this discussion that was new information for you?
- What surprised or challenged you?
- What did you agree with or disagree with and why?
- How does this information make sense in terms of your work in the field of public health?