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*Building the Scientific Basis for Public Health in North Carolina and Beyond*

A history of the Department of Epidemiology at the UNC Gillings School of Global Public Health

August 2015

**A different kind of department**

“Epidemiology … *what*!? What did you say? What is that?” These were Sherman James’ first words to Ralph Patrick, chair of the search committee, who had called to invite him to apply for a faculty position at the UNC Department of Epidemiology. If Sherman had heard of epidemiology, he knew nothing about it. Patrick, an anthropologist recruited to the Department by John Cassel 10? Years earlier, was unfazed, though, and encouraged the dubious social psychology doctoral candidate at Washington University in St. Louis to come to Chapel Hill and “have a conversation”.

Sherman did that, but at first he was hardly won over. As he recounted in a 2014 interview [see minute 19:40 and after a diversion that I prompted picks up again at minute 24] with Epidemiology alumnus Bill Jenkins, “[it was near Christmas time of 1972, I could use the break, if they wanted to pay my way to Chapel Hill, who was I to say ‘no’. and from there visit my parents in nearby S.C.]”. Sherman recounts that “[the first interviews weren’t all that exciting. … But over the course of the day, the conversations got more interesting. David Kleinbaum, Brooklyn Dodgers fan, even though I might never see him again, …” But then something happened. [“At the end of that first day I had an interview with John Cassel get through the next day, and I’m out of here to go down and see my parents. … starts talking about epid, and more specifically social epid, and … challenges, and obviously … drawing on his own experience in South Africa as a way of underscoring just how important an appreciation of social, political, and economic factors are health promoting and sometimes they’re not, health compromising, and if I were interested in field that brought together social science and social justice … and because I became of age , as you, during the Civil Rights era – fits who we are as people -=- finding a way to make a contribution on African Americans circumstances in America – academics evolved over time did not make all these connections at once but the seed was planted by his exposition of epidemiology .. began to think that perhaps this is what I was looking for all my life - medicine, social science, the ministry – so much richer than academic psychology, the ministry, medicine. By this time I’m interested, I want to know more. So by the second day I’m sitting on the edge of my seat, trying to learn as much as I could about this thing called epidemiology ..didn’t think they would offer me the job.”]

When Sherman James joined the Department, in 1972, John Cassel had already hired 6? social scientists, none with a degree in epidemiology. In addition to Ralph Patrick, Cassel had hired Berton Kaplan (1960? UNC sociology graduate with a postdoctoral fellowship in social psychiatry from Cornell?), C. David Jenkins (psychology graduate from UNC …, ), Stephen J. Zyzanski (1968 psychology graduate from UNC), though David Jenkins had left by then to \_\_\_\_\_. Sherman was also one of several faculty members without formal training in epidemiology. Although Bert Kaplan had studied survey research and attended seminars that John Cassel led, H. Alfred Tyroler was an industrial medicine physician and \_\_\_\_. John Cassel’s vision was to bring together researchers from diverse social science disciplines as well as practicing clinicians (Edward Wagner, who completed an MPH degree in 1972 and was then jointly appointed as assistant professor in Epidemiology and in the Department of Medicine), in order to gain the broadest possible understanding of the factors that influence disease susceptibility and occurrence. John Cassel was a pioneer in the newly developing field of social epidemiology, but it was hardly an accident that he was leading the department in these directions. [See Ibrahim et al., The Legacy of John C. Cassel, AJE, 1980]

**The very beginnings**

Milton Rosenau, lured to Chapel Hill to organize a program in public health, also taught the School’s first epidemiology course, beginning in spring 1936. As recalled by A. Worth Petty, one of 46 students enrolled in the UNC School of Medicine Division of Public Health (forerunner to the School of Public Health) in fall 1936, 'The big course was epidemiology with Dr. Rosenau…. This big book he had written, thicker than the Sears & Roebuck catalog, was the whole story on everything to do with communicable diseases.' Robert Korstad writes that “Rosenau did not limit his instructional materials to the lectern, blackboard, and textbook. The students staged a mock courtroom trial to demonstrate their knowledge of the social dimensions of disease control. Dr. Rosenau presided, dressed up in his black robe and wig.” (Robert Korstad, Dreaming of a Time, ch 2, p28 and 31). Rosenau remained a popular teacher, and at the end of his last course, in December 1945, applause from the auditorium in the MacNider Building “thundered and rolled”, following him as he descended two long flights to his office “every step of the way and could be heard by the staff on the ground floor.” (Korstad, ch 3, p53 quoting Dr. Rosemary Kent, a student in the last class).

The Department of Epidemiology was one of the original departments in the nascent school of public health, with Rosenau serving as the department’s first chair as well as the school’s first dean. [Can continue with notes from [file:///D:/Ktemp/EPID-History-CopyFromWDPassport/SakaiVicCollections-NotesFromDreamingOfATime.htm](file:///D%3A/Ktemp/EPID-History-CopyFromWDPassport/SakaiVicCollections-NotesFromDreamingOfATime.htm)]. Following Rosenau’s sudden death, in 1946, the deanship passed to Dr. Herman? Baity, who then passed it on to Dr. Edward G. McGavran, who served as dean from 1946 to 1963, with several interludes. Continuing the pattern set by Rosenau, McGavran was both dean of the school and chair of the Department of Epidemiology. Indeed, McGavran, was also the department’s only faculty member. With the 10% share of his effort to be allocated to epidemiology, McGavran taught several courses, recruiting assistance from public health practitioners at the N.C. state health department and \_\_\_\_. As the school grew in the 1940s, McGavran pushed for a core curriculum, with all MPH and MSPH students being required to take epidemiology (Korstad, p87).

McGavran’s annual reports reveal, however, that the arrangement of having a single person serve both as dean and the entire epidemiology faculty was not entirely satisfactory. Indeed, in his 1953-54 annual report", McGavran (as dean or as chair??) wrote that the department of epidemiology was the weakest in the school (Korstad p90). In 1954 McGavran finally succeeded in obtaining funds from the Public Health Service to start a Chronic Disease Section in the department. He engaged Dr. John Cassel,

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See Annual Reports from Carl or Archives

"Epidemiology grew dramatically in 1958 with the addition of three new faculty members paid by training grants from the Public Health Service and NIH. McGavran wanted an experienced, well-known person for the job of chairman and, through John Cassel, contacted Dr. Sidney Kark. Kark was professor of social, preventive, and family medicine at the University of Natal in South Africa, but prior to his academic appointment had had extensive experience as a public health officer and as a research epidemiologist. Kark was at the time pursuing a job with the World Health Organization (WHO), but McGavran offered him a one-year contract to help direct the growth and reorganization of the department.

Finally, in \_\_\_\_ he recruited Sidney Kark, a South African who had emigrated to Israel when his situation in South Africa’s apartheid society became somewhat precarious. Kark ?recruited the first faculty? and brought in his junior colleague at the Pholela Health Center in \_\_\_\_ as an MPH student. Kark returned to Israel and Cassel returned to South Africa.

"Epidemiology had been one of the original departments in the school, headed first by Rosenau and then by McGavran. But administrative responsibilities left little time for teaching or research by either of the deans. "The result," McGavran wrote in the 1953-54 annual report, "is that this department, which should be the strongest in the School of Public Health, is actually the weakest." That situation began to turn around in 1954 when McGavran obtained funds from the Public Health Service to start a Chronic Disease Section, for which he hired Dr. John Cassel." (Korstad, p90) (intervening paragraphs about John Cassel)

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Kark left after a year to be WHO professor of public health and social medicine at the Hebrew University in Jerusalem. McGavran recommended John Cassel as Kark's replacement. A few years later McGavran wrote to Kark, 'I am sure you would be proud to see how well John Cassel has continued and developed your good work here in establishing a dynamic Department of Epidemiology. John is a jewel and is gaining more and more national recognition. His department is stimulating to students and faculty alike and intensely loyal to John. I think we have a new and fresh approach to the teaching of epidemiology which is going to make its mark.'
That fresh approach involved a focus on the social causes of disease. Michel Ibrahim, another future dean, came to study at the school in 1960. He spent one year in biostatistics, but a desire to use his medical [p91] background led him to transfer to epidemiology. Ibrahim described the insights that propelled Cassel's research and teaching: 'Most of medicine was very biologically oriented. We thought in terms of germs and degenerative diseases. He advanced the theory — he did not invent it, but he pushed it very hard — that social and psychological factors affect people's health. [He was concerned with] cultural values, societal values and stress and how they related to illness.'
While biostatistics and epidemiology flourished in the 1950s, the Department of Mental Health hung on for dear life." (Korstad, p92)

"The other bright star in Dean Mayes's "constellation" was the Department of Epidemiology. The department undertook numerous studies in the 1960s, but the Evans County Cardiovascular and Cerebrovascular Epidemiologic Study drew the most attention. Evans was a small Georgia county about sixty miles inland from Savannah. Dr. Curtis Hames, a local physician in Claxton, noticed in the 1950s that the black patients he treated seemed to have a lower incidence of coronary heart disease than whites. He contacted the Public Health Service about the possibility of doing a study in Evans County to see if his clinical observations were correct, and if so what the explanation might be. The Public Health Service suggested that Hames contact the Department of Biostatistics at Chapel Hill for help in designing the program. Bernie Greenberg remembered the occasion:

The Public Health Service asked me to evaluate a research project proposed by a solo medical practitioner in private practice in Claxton, Georgia. I visited there for a few days with this physician but returned with serious doubts about the project's feasibility.
Nevertheless, I persuaded John Cassel to go back to Georgia with me a few weeks later to meet Dr. Curtis Hames in order to take a closer look at this project. I was still skeptical when we got on the plane to go there, but by the time we came home, John and I were thoroughly convinced that this project represented a unique epidemiological potential.

Between 1960 and 1962, 92% of Evans County's population over the age of forty underwent medical examinations and laboratory tests. The results confirmed Hames's observation. Black males suffered heart disease at half the rate of white men. More surprising, however, was the fact that white men in lower socioeconomic groups had rates comparable to blacks. When the investigators studied the population again between 1967 and 1969, there was less difference among white men. 'The only circumstances in which white men had as low rates as blacks,' John Cassel reported, 'was when they were both sharecroppers. The only relevant difference between white sharecroppers and all other white men that could be invoked to explain this finding was the high level of physical activity in sharecropping.' Hames and the school's epidemiologists concluded that psychosocial experiences and genetics might be contributing factors, but that levels of physical activity were primarily responsible: [p117]

That study grew exactly as John [Cassel] had predicted. Today it is the most famous nongovernmentally-administered cardiovascular study in the world. Dr. Curtis Hames turned out to have the medical and managerial capability that John had seen in him, and the Evans County project became a uniquely comprehensive field of study of heart disease in a natural, rural setting.
The project had given rise to hundreds of manuscripts, dozens of doctoral dissertations, and best of all, to some of the most important discoveries ever made about the precursors of coronary thrombosis, hypertension, and myocardial infarction. (13)

"The rapid expansion of the Departments of Environmental Sciences and Engineering, Biostatistics, and Epidemiology caused concern among some members of the faculty. The increasing emphasis on research was one issue, but, in addition, not everyone supported the strategy of building the school on soft money supplied by the federal government." (Korstad, 117-118)

[Korstad, pages 118-120 has an interesting description of issues about growing with federal research dollars]

"A more ambitious training and service project was "The Malawi Public Health Program," a Peace Corps project supervised by the Department of Epidemiology. The program took Peace Corps volunteers with no professional health training, brought them to Chapel Hill for four months of instruction and then sent them to Malawi in south central Africa to work on the prevention and cure of tuberculosis. The program's objectives were twofold: implementation of an integrated health program using nonprofessionally trained personnel and the training of national counterparts so that health activities could continue following the Peace [p130] Corps's withdrawal. John Cassel beamed with pride as he inspected the troops. 'I have just completed a tour of Malawi with Bill Peck looking at our Peace Corps project. I must say that even though I realize that it's still in its early stages, I was absolutely delighted with the way it had progressed. ... I am really proud of the training they got in Chapel Hill ... as they are probably the best-prepared bunch that have ever been sent out to Malawi.'" (Korstad, pp130-131)

"Although the practice-oriented departments improved during the 1970s, the research-oriented departments — epidemiology, environmental sciences and engineering, biostatistics, and parasitology and laboratory practice— remained the key to the school's national standing. A centerpiece of the Department of Biostatistics's research program in the 1970s was the Lipid Research Clinics Program." (Korstad, p159)

"One of the more intriguing aspects of the [LRC] program was the participation of two clinics in the Soviet Union. In 1973 James Grizzle of the Biostatistics Department and Herman Tyroler of the Epidemiology Department visited the Soviet Union to work out plans for a cooperative United States-Soviet Union lipids research project. A few years later, Soviet specialists began visiting Chapel Hill. 'Flowering in the climate of detente,' an observer noted, 'the historic collaboration has seen visiting teams of scientists and physicians traveling back and forth . . . between the two countries working toward the mutual goals of cutting the high number of deaths from heart disease in both countries.'" (Korstad, p160)

"To comply with these new [federal environmental] requirements and improve public relations, corporations began efforts to address some of their problems. This corporate campaign had two effects on the school. First, departments such as epidemiology, environmental sciences and engineering, and biostatistics contracted with firms to conduct health studies and run training programs. Second, a larger proportion of the school's graduates found employment in industry and nonprofit organizations.
One of the more interesting consulting projects involved the school in a cooperative venture with the United Rubber Workers Union and major tire companies. In 1970 the discovery of a respiratory illness associated with a chemical process in tire manufacturing spurred the creation of the Joint Occupational Health Program involving both the union and the tire manufacturers. The program contracted with the school to study health problems among rubber workers. Led by Dr. David Fraser, the Occupational Health Studies Group first conducted mortality studies and then began investigating environmental problems in the workplace. The long-term goal was to establish a system to monitor employees' health and to evaluate the health risks of new manufacturing processes.
The Department of Epidemiology also addressed itself to more local concerns. In cooperation with the North Carolina Affiliate American Heart Association and the Tarboro Clinic, Dr. Michel Ibrahim and Dr. Lawrence Cutchin directed a hypertension control program in Edgecombe County. High blood pressure was a major health problem in North Carolina, particularly among blacks and other rural people. The program sought to identify patients suffering from hypertension who could then be treated with different methods to determine levels of effectiveness. The program also taught physicians new ways of encouraging patients to maintain their treatment regimen." (Korstad, p164)

"The relatively small percentage of women on the faculty stemmed from structural factors, as well as from decisions by the school. In 1960, twenty years after the school began granting graduate degrees, women occupied roughly one-third of the faculty positions. By 1980 the proportion had slipped to less than 20 percent. The Departments of Public Health Nursing and Public Health Education accounted for the majority of the 1960 positions. The presence of these programs was notable because few schools of public health had either one. The federal gov- [p168] ernment's romance with health issues in the 1960s, however, benefited medical and scientific endeavors — disciplines that were dominated by men — rather than the helping professions, which were dominated by women. Nursing, education, nutrition, and maternal and child health lost ground to hard sciences such as epidemiology and biostatistics. The result was an erosion of the number of women at the school." (Korstad, pp168-169)

"University officials chose Dr. Michel A. Ibrahim, professor and chair of the Department of Epidemiology, to succeed Greenberg. Ibrahim had been a member of the school's community since 1960, when he began study for an M.P.H. in biostatistics. He switched fields and took a Ph.D. in epidemiology in 1964 before leaving for Buffalo, New York, to serve on the faculty of the State University of New York at Buffalo Medical School. In conjunction with his faculty position, he later became first deputy commissioner in the Erie County Health Department. Ibrahim returned to Chapel Hill in 1971 as a professor in the Department of Epidemiology and succeeded John Cassel as chair of that department in 1976. This combination of academic excellence, administrative ability, and familiarity with the school made Dr. Ibrahim an outstanding choice for the deanship." (Korstad, p172) [continues with Michel's description of the school's needs and the importance of the new building]