Mental Health

at the Johns Hopkins Bloomberg School of Public Health

A History of the Department

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Chairs of the Department of Mental Hygiene (1961-2004) and
Department of Mental Health (2004-present)

Paul V. Lemkau, MD, MPH
1941-74

Alan D. Miller, MD, MPH
interim 1955-57

Abraham M. Lilienfeld, MD, MPH
interim 1974-1975

Ernest Gruenberg, MD, DrPH
1975-81
1. Origins of Mental Hygiene at Johns Hopkins

In May 1908, the Philadelphia steel magnate and philanthropist Henry Phipps visited the Tuberculosis Division he had founded at the Johns Hopkins Hospital. Phipps asked William Henry Welch, Dean of the Johns Hopkins School of Medicine, to suggest another project he could sponsor, and Welch gave Phipps a copy of A Mind That Found Itself. The book, authored by recovered asylum patient Clifford W. Beers, had generated national attention for the mental hygiene movement with its descriptions of the horrors of straightjackets, padded cells, and brutal attendants. One month later, the Johns Hopkins Hospital publicly announced Phipps’ $1.5 million endowment to establish the Henry Phipps Psychiatric Clinic. To develop a Department of Psychiatry at Johns Hopkins, Welch invited Adolf Meyer, a Swiss pathologist and psychiatrist at Cornell who emphasized the inseparability of mental and physical problems and founded the field of psychobiology. In April 1913, the Henry Phipps Psychiatric Clinic officially opened. Since then, the Department has occupied a distinguished place in the history of psychiatry, with a continuous tradition of excellence in patient care, teaching, and research.

A few years after the Phipps Clinic opened, Welch relinquished the deanship of medicine to become the founding dean of the Johns Hopkins School of Hygiene and Public Health. In 1916, the Rockefeller Foundation awarded the initial grant to establish the first independent degree-granting graduate school of public health in the world. Its very name, with hygiene before public health, reflected the primacy of Welch’s emphasis on scientific research on the German institute of hygiene model. Welch remained a major proponent of the mental hygiene movement and in 1923 was elected president of the National Committee for Mental Hygiene, which Beers had founded in 1909. Welch wanted to include a department of mental hygiene in the School, but this goal was shelved until after Welch’s death, perhaps because mental hygiene did not fit easily within the School’s framework of laboratory-based science dedicated to fighting infectious disease.

The Great Depression and World War II transformed public health practice, medical science, and American politics. Public health instruction had previously emphasized bacteriological and environmental methods of fighting infectious disease. Public health administration was a required course, but students devoted little time to it until after the war, when it began to displace the basic sciences as the main focus of public health courses alongside biostatistics and epidemiology. Title VI of the 1935 Social Security Act provided the first federal aid to train state and local health department personnel. The legislation required states to establish minimum criteria for staff whose salaries were paid with federal funds, with a recommended one year of coursework in an approved school of public health. After 1935, funding from the Social Security Act, the U.S. Public Health Service (PHS), and the Rockefeller Foundation promoted two major trends: an emphasis on the MPH as the primary public health degree and the development of specialized training programs in growth areas such as mental hygiene, venereal disease control, and maternal and child health. As federal and state health programs stimulated health departments to provide a widening array of personal health services, the binary classifications of prevention/cure and social/individual began to blur.

The Eastern Health District was a one-square-mile model research and training area established in 1932 with a Rockefeller grant and administered jointly by the School of Hygiene and Public Health and the Baltimore City Health Department. The Eastern Health District (EHD) was unique for its academic affiliation as a population laboratory and clinical site for public health students that would parallel the Johns Hopkins Hospital’s role in medical education. The EHD hosted clinics for mental hygiene that involved
medical school faculty and provided clinical training to both Hygiene students and Johns Hopkins Hospital residents and graduate nurses. Since community studies of disease were only as meaningful as the underlying knowledge about the base population, Hygiene faculty and students painstakingly collected and analyzed demographic data on EHD residents’ age, sex, race, occupation, economic status, and family size. This baseline data was checked against patient records from local hospitals, physicians, and EHD clinics to analyze the distribution and spread of mental illness, as well as infectious and chronic diseases. During the 1940s, the School’s dean, Lowell J. Reed, emphasized that the District was “becoming increasingly valuable in the teaching and research program of the School.” School of Hygiene alumni carried the Eastern Health District model across the United States and to countries around the world. Wallace Mandell, for example, developed a state mental health plan for Texas that modeled its community mental health districts on those in Baltimore. He placed child guidance clinics across the state so that parents were no more than a one-hour drive away. Reed urged the Rockefeller Foundation to extend its support for additional teaching personnel in mental hygiene and other disciplines for as long as possible, noting that “the moment the war is over, it is obvious that there will be a great rush to graduate training in the field of public health.”

The 1940s transformed both mental health and public health in the United States. Seclusion and physical restraint had been routinely used methods to control the behavior of institutionalized mental patients, even those who showed little sign of violent tendencies. The straightjacket and the solitary confinement cell became the iconic symbols of mental institutions in the popular imagination. The deinstitutionalization of mental patients from state hospitals began immediately after World War II and accelerated after passage of the federal construction grant program for community mental health centers in 1963. As mental health historian Gerald Grob notes, deinstitutionalization was not a coherent policy, but “the result of a series of incremental and unrelated developments.”

The 1940s saw the first major discoveries regarding the etiology and effective drug therapies for various somatic conditions that were traditionally classified as psychopathology. Once hospitalization was no longer the sole treatment option, a growing list of heretofore psychiatric diseases were usurped by other medical specialties. By the mid-1950s, pediatricians and neurologists had assumed responsibility for epileptics. Neurosyphilitic paresis, a leading cause of admissions to state mental hospitals prior to 1945, yielded to the introduction of penicillin therapy for syphilis. Antibiotics and improved prevention measures for many infectious diseases had virtually eliminated delirium, once a severe psychiatric management problem in young pneumonia and typhoid patients. Antipsychotics such as chlorpromazine significantly reduced the threat of violence that had been a basic justification for commitment, thereby dramatically accelerating the migration of psychiatric diseases and adult patients out of state mental hospitals. An increasing proportion of psychiatric practice was devoted to the management and treatment of mentally and physically disabled children.

In tandem with these developments, the School’s primary sponsor, the Rockefeller Foundation, placed new emphasis on clinical knowledge as essential to research and training in public health as well as medicine, which informed its support for establishing a new mental hygiene MPH program at Johns Hopkins. State and federal categorical programs also underwrote the establishment or expansion of a wave of specialized MPH tracks at Johns Hopkins and relieved the Division of Mental Hygiene from dependence on short-term Rockefeller grants. Most importantly, the postwar expansion of the National Institutes of Health fueled the growth of Psychiatry, Mental Hygiene and the other clinical divisions of the Schools of Medicine and Hygiene.
The armed forces were eager to employ MPH graduates trained in mental hygiene to screen recruits and treat mentally ill servicemen and veterans. In 1941, School of Hygiene officials met with the PHS Mental Hygiene Division, the Mental Hygiene Society, and the Maryland Commission of Mental Health to outline a new eighteen-month graduate program in community mental health designed to prepare psychiatrists and other specialists to administer public mental health programs.

As head of the Mental Hygiene program at Johns Hopkins from 1939 until 1978, Paul V. Lemkau set the international standard for the study of mental disorders in large populations and in community settings and taught the fundamentals of mental health research. His wide-ranging research interests spanned community mental health, psychiatric epidemiology, preventive psychiatry, planning for mental health services, the prevention and early diagnosis of psychiatric problems in children and aging adults, and international comparisons of psychiatric diagnosis and treatment.

Lemkau held a joint appointment in the Department of Psychiatry, where he had been a resident for five years under Adolf Meyer. But from the beginning Lemkau channeled the mental hygiene program toward community epidemiology and spent little time at the medical school. He and other mental hygiene leaders, such as fellow Meyer resident Alexander Leighton, were consciously trying to transcend the limits of mental hospitals and to identify and treat early mental illness through programs in schools and colleges, child guidance clinics, and other outpatient settings. Whereas students in the syphilis control MPH program divided their time between lab work, the Johns Hopkins Hospital syphilis clinic, and the Eastern Health District, mental hygiene students worked exclusively in the EHD, reflecting the philosophy that mental illness was preventable and caused as much by

Adolf Meyer (center), chair of Psychiatry in the Johns Hopkins School of Medicine and director of the Henry Phipps Psychiatric Clinic, pictured in 1935 with his residents. Paul V. Lemkau is on the front row, second from left; Alexander Leighton is on the second row, far right.
social maladjustment and environmental factors as by somatic disorders.\textsuperscript{17}

The mental hygiene program demonstrated that the PHS and School of Hygiene, despite their close relationship, did not always share the same priorities. When the PHS asked the School to waive the required MPH bacteriology course to enable officers to concentrate on mental hygiene courses, the School of Hygiene Advisory Board\textsuperscript{1} refused, since the course had already been stripped of a great deal of bacteriological technic which it contained in previous years, and the mental hygiene students would still need to understand the principles of bacteriological and virus disease as they relate to epidemiology and to public health in general. The board felt that a bare minimum of half the academic year should be devoted to common requirements “if the general public health course is to serve its purpose of developing general public health concepts in people with as varied interests as medical health officers, psychiatrists, sanitary engineers, public health nurses, etc., . . . ”\textsuperscript{18}

Although the Advisory Board prevailed for the time being, the addition of more specialized tracks brought increasing pressure to reduce the time allotted to common public health courses in the intensive MPH schedule.\textsuperscript{19}

Paul Lemkau was a prolific teacher who prepared the behavioral component for the new Biology of Disease course that replaced microbiology as the MPH science requirement in 1955. Lemkau declared in his division’s annual report that “Active teaching participation in Pathobiology I signaled behavior study as a recognized basic science in the School.” Lemkau taught labs based on social class distribution and differences in availability of treatment for schizophrenia, as well as on the effect of sensory stress on performance on a psychological test. Marcia Cooper taught a lab demonstrating the use of children’s drawings as an index of normal and deviant development.\textsuperscript{20}

In tandem with the medical school’s forensic pathology course for public health students (which offered experience in the laboratory of the Chief Medical Examiner of Maryland), Lemkau also taught and conducted research on forensic psychiatry. The Department hosted a guest lecture by Manfred Guttmacher, the psychiatrist who testified at the trial of Jack Ruby (notorious for shooting John F. Kennedy’s assassin Lee Harvey Oswald before rolling news cameras). Lemkau advised the state Department of Public Welfare on psychiatric care for juvenile delinquents and worked closely with the Baltimore Police Department and the Baltimore Council of Social Agencies on a study of the police’s role in the hospitalization of the mentally ill. To emphasize the importance of onsite medical care for psychiatric emergencies as an important aspect of local psychiatry services, he conducted a demonstration project on emergency home care in Baltimore, where more than a third of psychiatric hospitalizations involved the police and incarceration, although violence was only rarely a factor. Lemkau showed that emergency home psychiatric care could help reduce police involvement in hospitalization and allow for voluntary hospitalization in a larger proportion of cases.\textsuperscript{21}

The careers of Lemkau’s students during the 1950s illustrate the broad influence of the Hopkins master and doctor of public health programs in mental hygiene. The first DrPH graduate in mental hygiene was Alberta Szalita-Pemow, a physician and neurologist from Warsaw, Poland, who received a scholarship to Hopkins from the National Council of Jewish Women for outstanding women who would

\textsuperscript{1} The Advisory Board was composed of all the full professors in the School of Hygiene and served as its governing body.
return to Europe to rebuild war-torn Jewish communities. She had practiced in Russia and Poland before the war and in France during and after the war. While she was at a medical conference in Russia, Szalita-Pemow’s husband and children were killed in the Holocaust. The year before her graduation from the School of Hygiene and Public Health in 1950, Szalita-Pemow had joined the staff of the Chestnut Lodge in Maryland, where she met another Jewish refugee psychoanalyst, Frieda Fromm-Reichmann. Chestnut Lodge was a family-owned asylum on country estate near Rockville, Maryland, and it became, along with the Phipps Clinic at Hopkins and Sheppard-Pratt Hospital north of Baltimore, a nationally known pioneer in advancing mental health care. Szalita-Pemow was electrified by the “extraordinary atmosphere that pervaded Chestnut Lodge,” a place she described as “bursting with the ideas and struggles of a group of sharp-minded, brilliant people totally devoted to the challenging and difficult task of the treatment of schizophrenia.”

With Fromm-Reichmann and three other Chestnut Lodge colleagues, she organized a clinical research group with a grant from the Social Research Fund that produced some of the first studies of the use of psychoanalysis in treating schizophrenia, including the therapeutic use of intuition. The resulting article that Szalita-Pemow published in 1955 in the *Journal of the American Psychoanalytic Association* became a widely cited milestone in the field, selected in 2000 as one of the 20 most influential papers by the International Society for Psychological Treatments for Schizophrenia and other Psychoses. Szalita-Pemow helped to establish psychoanalytic institutes in Norway and in Israel at Tel Aviv University, and later in her career she was a training and supervising analyst at Columbia University and the William A. White Institute in New York.

Graduates of the Hopkins Mental Hygiene program would shape the creation of the National Institute of Mental Health and direct the agency from 1949 to 1970. **Robert H. Felix** (MPH 1942), a member of the first mental hygiene class, recalled taking a biostatistics course from the eminent dean of the School of Hygiene, Lowell J. Reed. “Oh, God, how he would lay into us about the lousy statistics in medicine and he would use mental health as the most horrible example. He would take a journal article and give you the data and conclusions, and then he would go back and tear it to shreds. Then the guys [in class] would kid me, and I decided God, if I ever had the chance, one thing I would do was develop the finest mental health statistics department in the world.”

After Felix was appointed director of NIMH in 1949, he quickly hired Reed’s star student, Morton Kramer, as head of the Biometrics Branch. A few years later, Felix made a presentation before the Milbank Foundation on progress in mental health statistics, with slides provided by Kramer. Before the lights went up, he told the audience, “I swore by everything that I held holy that I was going to develop statistics so good that I will make Lowell Reed stand at Washington’s Monument at the corner of Charles and Monument Street and eat them for breakfast without any coffee to
wash it down. The lights came up and there sat Lowell Reed, who was a Milbank trustee. He had a grin on his face and he said, you have paid me the highest compliment a student can pay a teacher, and I'll eat them!24

Lemkau and Felix together helped develop the National Mental Health Act of 1946, which channeled federal resources into psychiatric research and training programs and created the National Institute of Mental Health in 1948. Felix first conceived the idea for NIMH as a student at Hopkins, when he was working on an epidemiology assignment on polio in New Zealand, and realized that schizophrenia clustered geographically the same way as polio. He believed that a national campaign to address mental illness could be modeled on the polio campaign then being mounted by President Franklin D. Roosevelt and the National Foundation for Infantile Paralysis, with the same elements of research, training, and community services. After Felix was appointed head of the new PHS Division of Mental Hygiene, Surgeon General Thomas Parran called him in and asked how he would structure a national mental health program. The next morning, he presented to Parran the outline for what he originally called a National Neuropsychiatric Institute.25 As the first director of NIMH from 1949 to 1964, Felix was a prime architect of national programs that revolutionized mental health research, training and treatment of the mentally ill. He served as president of the American Psychiatric Association in 1960-61 and left NIMH to become dean of medicine at St. Louis University.26

Together with the postwar expansion of the Veterans Administration residency program, NIMH training grants provided more generous stipends for psychiatry residencies in order to increase the number of physicians entering the specialty, particularly community mental health. The NIMH was unique among NIH institutes because it integrated research with a social mission of training and clinical services. Felix and Lemkau's influence ensured that NIMH went beyond basic and clinical biomedical research to include and support behavioral and social science research--fields in which the Department Mental Hygiene at Johns Hopkins would excel.27

Felix was the first of many early leaders at NIMH to be trained in the Hopkins Mental Hygiene MPH program; likewise, many Mental Hygiene faculty have had NIMH backgrounds. Morton Kramer, faculty member from 1976 to 1984, headed the NIMH Biometrics Branch from 1949 to 1976, which compiled, analyzed, and evaluated national statistics on the incidence and prevalence of mental illness, consulted with outside agencies, and conducted a census of patients in mental institutions. Future department chair Sheppard G. Kellam was at the NIMH Clinical Neuropsycharmacology Research Center during the early 1960s, where he directed research on the quantification of social interaction in a psychiatric ward and also developed a Social Interaction Matrix to study the effects of major tranquilizers in the ward.28 Another future department chair, William W. Eaton, was assistant chief of the agency's Center for Epidemiologic Studies from 1978 to 1983.

Bob Felix sent his lieutenants to Hopkins for advanced training in public mental health, including Robert T. Hewitt (MPH 1948), head of the NIMH Hospital Services Branch, Dale Cameron (MPH 1951), assistant director of NIMH, Alan D. Miller (MPH 1951), head of the NIMH Mental Health Study Center, and Stanley F. Yolles (MPH 1957), who succeeded Felix as NIMH director. Felix told Miller that he “must go to Hopkins, because of Paul Lemkau.” Miller had attended a seminar with Dr. Lemkau, and “was bowled over; I needed no persuasion.”29

Yolles joined the staff of the NIMH Mental Health Study Center in 1956, where he worked with Miller and Mabel L. Ross. Miller told Yolles that the Center’s research had to benefit the community, and that the same “first do no harm” principle that applied in medicine was just as true of the residents of Prince George's County, Maryland. Miller, Ross, and Yolles applied sophisticated epidemiological reasoning that would become a hallmark at
NIMH. Yolles recalled, “In looking for community indicators of mental health or mental illness, we noted that there was a very high correlation between juvenile delinquency as an index of dysfunction in the community, and a high rate of reading disabilities. We looked at the epidemiology of reading disabilities as an indicator of other pathology in the same sense that one in a laboratory looks for E. coli as an indicator of contamination by typhoid or other pathogenic organisms.”

To gain the cooperation of the community and the school district, “we couldn't be too nosy and too proud. So we gave the school system carte blanche consultation with their counseling personnel and attendance people, we would hold case conferences in the schools with the guidance person, and we had seminars for them at the Mental Health Study Center.” Yolles attributed the Center's successful research and its elevated status in the community directly to the staff's MPH training (he and Miller at Hopkins, Ross at Harvard). Yolles also used his public health knowledge to build bridges with health officials charged with administering NIMH-funded programs. One evening over dinner with the health officer of Oklahoma City, where he was speaking on NIMH’s Community Advisory Board Clinics, Yolles was asked if he liked his hotel accommodations. He surprised his host by replying, “I find the hotel very nice, except you have a very severe problem with back siphonage of water from the bathtub.”

Yolles served as the second NIMH director from 1964 to 1970. Although he earned a master's in parasitology from the Harvard School of Public Health and fought insect-borne diseases in the Caribbean during the war, Yolles concluded that he “could no longer be satisfied with a one-to-one relationship with a microscope,” and decided to pursue psychiatry. Like Felix and many other Mental Hygiene alumni, Yolles worked with drug addicts at the Public Health Service Hospital in Lexington, Kentucky, where he abolished the use of bars and handcuffs to restrain patients. The experience galvanized his commitment to finding more humane and effective methods for preventing and treating drug abuse.

As NIMH director in the turbulent 1960s, Yolles denounced what he saw as “stupid, punitive laws” that criminalized drug use. He testified before Congress that strict penalties failed as a deterrent, since addiction was a medical and social problem. Yolles made headlines by calling for abolishing mandatory sentences and giving judges greater discretion to deal with drug users, especially first-time offenders. Regarding marijuana possession, he said, “I know of no clearer instance in which the punishment for an infraction of the law is more harmful than the crime.” This view would later be famously advocated by President Jimmy Carter early in his term, until Peter Bourne, special assistant for health issues, forced Carter to backtrack after a scandal erupted over Bourne’s own use of illegal drugs and connections with the National Organization for the Reform of Marijuana Laws.

Although Yolles persuaded the Justice Department to reduce federal penalties for marijuana, he also angered the Nixon administration, which worsened conflicts over the budget and direction of NIMH. When the administration announced that Yolles had been dismissed, he penned a resignation letter the same day in which he accused Nixon of “abandonment of the mentally ill.” In 1971, Yolles became the founding chair of the department of psychiatry at the State University of New York School of Medicine at Stony Brook until he retired in 1981. He also directed the Long Island Research Institute from 1974 to 1981.

In addition to their efforts to guide federal mental health reform, Division of Mental Hygiene faculty and alumni helped the state and local governments of Maryland and New York to establish and expand community mental health services. From 1949 to 1953, the School allowed Paul Lemkau to remain on the faculty while serving as head of the Maryland Division of Mental Hygiene, where he expanded on the existing system of state
mental hospitals to develop a modern program of community mental health services. Lemkau also worked as a consultant to the New York State Mental Health Commission under Ernst M. Gruenberg, executive director from 1949 to 1954. Gruenberg favored the English model of basing community health services in a psychiatric hospital, but Lemkau preferred the public health department, as was the policy in the Netherlands. Gruenberg, a professor of psychiatry at Columbia, also directed the psychiatric and epidemiology research unit of the New York State Department of Mental Hygiene. Together, they worked to enact the 1954 New York State Community Mental Health Act and other laws to develop the state’s mental health programs and establish community facilities. In 1975, Gruenberg succeeded Lemkau as chair of Mental Hygiene at Hopkins.32

Under Mayor Robert F. Wagner and Health Commissioner Leona Baumgartner, New York City took the lead in establishing a Community Mental Health Board under the new law. From 1955 to 1957, Lemkau took a leave of absence to serve as New York City’s director of Mental Health Services during the initial implementation phase.33 He asked Bob Felix to send Alan Miller to Hopkins to serve as interim chair. Several of Lemkau’s students followed him to New York and stayed. Rema Lapouse (MPH 1950) headed the Mental Disease Unit in the Division of Epidemiology at the New York City Public Health Research Institute. She became one of the foremost epidemiologists of pediatric mental disorders, as well as co-founder of the APHA Mental Health Section. Marvin Earl Perkins (MPH 1956) was the first Commissioner of Mental Health Services for New York City as well as the District of Columbia.34

The community mental health programs in New York and Maryland as well as at the NIMH Mental Health Study Center were all models for federal legislation to establish and support community mental health centers as an alternative to state mental hospitals. The influence of Hopkins-trained NIMH staff, including Bob Felix, Stan Yolles, and Alan Miller, was essential for crafting a national program that addressed the major mental health needs of states and communities on a population basis and ensured access for all citizens. The passage of the 1963 Mental Retardation Facilities and Community Mental Health Centers Construction Act marked a new era of increased federal support for mental health services, and NIMH assumed responsibility for monitoring the community mental health centers program nationwide.

In 1964, Miller left NIMH to become New York State Commissioner of Mental Hygiene. Under his leadership in the first decade after the program’s inception, New York built 26 mental health centers at a total cost of $99 million, with 15 percent of the total from federal funds. Testifying before Congress in 1973, Miller described the impact of the Act on his state’s mental health program:

A well functioning community health service can make a significant impact on admission rates and more importantly resident patient rates in state hospitals. Since the care of the long term state hospitalized patient represents a tremendous expenditure of public money, continuation and expansion of the mental health center program is fiscally sound. The saving in human distress and the elimination of the personally damaging effects of long term hospitalization in remote impersonal institutions are, of course, too well known to require further description.

Yet in the context of Nixon-era retrenchment of federal programs, Miller also remarked on the irony that "on the one hand the Department of Health, Education, and Welfare, through the Developmental Disabilities Services Act, is making specific grants to states to help plan for deinstitutionalization of the mentally retarded but on the other is threatening to extinguish the Community Mental Health Center program, which has the potential to be a great force for deinstitutionalization of the mentally ill."35
In the two decades from the creation of the Division of Mental Hygiene in 1942 to the passage of the Community Mental Health Centers legislation, Hopkins mental health faculty and alumni were national leaders in creating and developing health policy that firmly established mental health as both a central concern of public health practice and a legitimate focus of research within NIH. By uniting scientific medicine with psychiatric epidemiology that was deeply rooted in community needs and realities, the Division helped gain wider acceptance for Lemkau’s contested idea that mental health belonged in public health.


4 Fee, Disease and Discovery, 179, 184-214; “Report on the Eastern Health District to the IHD,” 1941, 1942, 1943, JHSPH Dean’s Office Correspondence Series 3a, box 502037, “Rockefeller Foundation” folder, Alan Mason Chesney Medical Archives of the Johns Hopkins Medical Institutions (AMC).


12 Turner, Heritage of Excellence, 397.

13 Brandt, No Magic Bullet, tk; Starr, Social Transformation of American Medicine, 344-45.

14 SHPH Advisory Board Minutes, vol. 4, May 27, 1941 p. 46, AMC.


16 Paul Lemkau bio file, AMC; SHPH Advisory Board Minutes, vol. 4, May 27, 1941 p. 46; Leo Kanner to Lowell Reed May 22, 1941, JHSPH Dean’s Office Correspondence Series 3a, box 502034, “Kahn-Kar May 1941-
Jun 1944" folder; Fee, Disease and Discovery, 198; Reed to Roy C. Heflebower June 24, 1941, JHSPH Dean’s Office Correspondence Series 3a, box 502034, "Lee-Lem Jun 1941-Mar 1944" folder.


18. Lowell J. Reed to Victor Vogel June 5, 1941 and Vogel to Reed June 6, 1941, JHSPH Dean’s Office Correspondence Series 3a, box 502041, “U.S. Public Health Service Feb 1940-June 1941” folder.


27. Farreras, Hannaway, and Harden, Mind, Brain, Body, and Behavior, 10.


33. Paul V. Lemkau, Mental Health Resources in New York City (New York City Community Mental Health Board, 1957); Grob, “Deinstitutionalization,” 48-73.

34. JHSPH Dean’s Office Correspondence Series 3a, box 504577, "NYC Community Mental Health Board" folder; “Administrative MD: Marvin Earl Perkins,” New York Times Nov 1, 1961.

35. Alan D. Miller, testimony on renewal of the Community Mental Health Centers Act before the House Committee on Interstate and Foreign Commerce Subcommittee on Public Health and Environment, May 9, 1973, p. 120.
2. Research on child development and developmental disabilities

The School of Hygiene’s prewar research on the social epidemiology of the family had focused on the physical and mental health of mothers and children. This research blossomed after Ernest L. Stebbins arrived in 1947 as director of the School and chair of the Department of Public Health Administration, which housed the Division of Mental Hygiene.¹ In 1949, Charles-Edward A. Winslow of Yale named “the challenge of mental and emotional disease [as] probably the greatest single objective of the public health program of the future.”² In his review of Lemkau’s seminal textbook, Mental Hygiene and Public Health, Winslow wrote, “To control these environmental factors [that influence mental health] is a legitimate and ultimately inescapable task of public health.” Personality development during childhood was fraught with mental health risks, and helping parents to modify and manage them successfully was “sure to be recognized ultimately as even more important (even if also more difficult) than the measures now taken for the prevention and early treatment of infectious and nutritional diseases.” Winslow also recognized mental hygiene as a critical factor in the success of every health department clinic, the core work of every good public health nurse, the effectiveness of all health education, and the sound administration and public relations of a health department. He noted, “Such new procedures as childbirth without anesthesia, and rooming-in for infants are primarily mental hygiene technics.”³

In 1950, Ruth Freeman joined the Department of Public Health Administration faculty to head the new Division of Public Health Nursing, and Freeman and Lemkau began seeking NIH funds for projects on psychiatric education and nursing education.⁴ The Division of Mental Hygiene began to enroll more nurses, many of whom had worked in the Eastern Health District and contributed to the School’s studies of maternal and child health and mental hygiene.⁵ To raise awareness of the role of public health nurses in promoting the mental as well as physical health of their clients, Lemkau served as psychiatric advisor for *Broken Appointment* (1955), a documentary film that explored the emotional aspects of public health nursing. During this period, the majority of public health administration courses dealt with clinical medical care programs in nursing, maternal and child health, mental hygiene, and venereal disease.⁶ Such programs reflected an increasing “emphasis on health problems that require individualized rather than mass treatment [and] necessitated the use of a multi-disciplinary professional group in planning and effectuation of health programs,” according to Freeman.⁷

Freeman collaborated with Marcia Cooper in the Division of Mental Hygiene, who also promoted interdisciplinary research and training. Cooper directed the Eastern Health District’s Mothers Advisory Service, which brought psychiatrists, public health nurses, and medical social workers together to offer practical childrearing advice and support for mothers. Child guidance clinics utilizing interdisciplinary teams had their roots in the diagnostic outpatient clinics established for mentally disturbed juveniles at the turn of the twentieth century in cities such as Boston, Chicago, and Philadelphia. By 1930 there were over 200 child guidance clinics registered with the National Committee for Mental Hygiene.⁸

The Mothers Advisory Service received referrals from local physicians and all the childcare agencies in Baltimore City as well as many across the state. By the 1950s, the Mothers Advisory Service was one of the few remaining threads of the School’s relationship with the EHD, and Cooper moved into assisting clinics and social agencies in evaluating children with special needs in placement for foster care and adoption. Cooper’s multi-disciplinary team from the Division of Mental Hygiene, Baltimore City Schools, the School Health Division of the City Health Department, and the Johns Hopkins Hospital departments of Child Psychiatry,
Neurology, and Otology also helped coordinate the medical and educational needs of children with brain injury or communication handicaps, including screenings for participation in experimental classes.\(^9\)

Ruth Freeman and Marcia Cooper challenged gender and disciplinary barriers in the physician-centric culture of Hopkins to fulfill the 1939 Parran-Farrand Report’s charge to provide unified training to all types of public health workers. With the growth of programs like the Mothers Advisory Service, maternal and child health services became the largest clinical component of most public health departments. Though still grounded in pediatrics and obstetrics, maternal and child health had broadened to include psychiatry and other clinical specialties involved in the care of physically handicapped and developmentally disabled children. Public health nurses remained central to the field, but social workers played an increasingly critical role.\(^10\)

In 1959, the American Psychopathological Association convened its 49th annual meeting to discuss the comparative epidemiology of mental disorders, a field that had emerged as a major strength at the Johns Hopkins School of Hygiene and Public Health. The School’s representatives at this historic meeting included Benjamin Pasamanick, Abraham M. Lilienfeld, and Paul Lemkau. Also present were future Hopkins Mental Hygiene faculty members Morton Kramer and Ernest Gruenberg (see picture on next page).

The School’s research on the links among pregnancy, premature birth, and developmental disabilities built upon the statistical and methodological foundation of the earlier Family Studies and obeyed biostatistician Margaret Merrell’s dictum that “public health problems that are related to families as such demand classification and analysis on a family unit basis.”\(^11\) Taken together, the studies conducted during the 1950s and ’60s by psychiatrists Lemkau and Pasamanick in the Division of Mental Hygiene, epidemiologist Abe Lilienfeld, pediatricians Paul A. Harper and Hilda Knobloch in the Division of Maternal and Child Health, and biostatistician Rowland V. Rider must be considered among the School’s most far-reaching contributions to public health research. The pregnancy, prematurity, and development studies shared three characteristics. They used innovative methodology that helped to establish the etiology and incidence of several poorly understood congenital conditions. Carefully planned, large-scale case-control studies highlighted race and socioeconomic status as critical factors in both initial damage to the fetus or infant and in the child’s subsequent development. Finally, in both their publications and advisory roles to health officials and policymakers, School of Hygiene faculty emphasized the broad preventive applications of their research for policy and practice.
Many congenital neurological conditions, such as cerebral palsy and epilepsy, were thought to be hereditary. Scientific racism remained influential, and many medical researchers attributed the higher reported rates of mental retardation and behavioral disorders among black children to biological racial inferiority. However, little was known about the distribution of birth defects in the population or their long-term effects on development. Benjamin Pasamanick and his wife Hilda Knobloch investigated these issues by examining infants and young children, with special attention to the role of the family’s race and socioeconomic status. In his early research on black infants in Harlem and New Haven, Connecticut, Pasamanick had disputed theories of racial inferiority and concluded that lower birth weights and poorer nutrition explained higher rates of mental retardation among black children. Without exception, the archival photographs that depict the School of Hygiene’s activities in the Mother’s Advisory Service and the maternal and child health clinics of the Eastern Health District show white students and faculty observing or caring for African American women and children who resided in the predominantly black neighborhood surrounding the medical campus. Race affected the collection and interpretation of data, sometimes in surprising ways. Lilienfeld and Pasamanick had expected the rates of prematurity and neonatal abnormalities to be higher among cases than controls, but this was only true for white infants, while rates for black infants were nearly as high among controls as cases. The lower overall percentage of hospitalized births among black women had resulted in a selectively higher proportion of abnormal pregnancies and deliveries among those for whom hospital records were available. School segregation actually facilitated the
selection of controls in the retrospective study of maternal and fetal precursors of behavior problems in children who had been referred to the Baltimore City Public Schools Division of Special Services. Each child with behavior problems was matched with "another child of the same sex in the same class [who had not been referred, which] resulted in automatic matching by race, economic status, and age due to segregation and school districting."\(^{16}\)

The disadvantages of racial discrimination and dire poverty faced by most inner-city East Baltimore residents were borne out in the School of Hygiene's research, with consequential implications for public health policy and practice. By correlating data from birth certificates, hospital records, and census tracts, Pasamanick, Knobloch, and Lilienfeld found that the rate of maternal complications among 700 infants born in Baltimore hospitals was 5 percent among whites in the highest economic quintile, 15 percent among whites in the lowest economic quintile, and 51 percent among nonwhites. Black rates of premature birth were also "strikingly greater than those in the lowest socioeconomic white groups," which led the authors to hypothesize that "Negro socioeconomic status is lower than that in even the lowest white groups" and therefore "prematurity rates increase exponentially below certain economic thresholds."\(^{17}\) Of over 42,000 live births to mothers in Baltimore hospitals, 11 percent of black infants were premature, compared to only 7 percent of white infants. Of those born to mothers over age 30, 22 percent of blacks and 9 percent of whites were premature.\(^{18}\)

At the conclusion of their 1956 article on precursors of neuropsychiatric disorder, Lilienfeld, Pasamanick, and Rogers emphasized that their findings "above all indicate areas where preventive measures may serve to decrease the enormous weight of individual and social loss and suffering." During the 1950s, state and local health departments began to more fully incorporate the care of mentally and physically handicapped children into maternal and child health programs. About 30 percent of children served by crippled children's agencies had congenital malformations, the largest single diagnostic category.\(^{19}\) Lemkau and Harper, with Hopkins pediatrician Robert Cooke, played major roles in the establishment and expansion of programs that significantly increased the scope and reach of services for mentally and physically handicapped children. But divisions among the three chairs reflected disciplinary and political splits over which medical specialties and federal agencies should have primary responsibility for such services. Psychiatrists on state boards of mental health had traditionally overseen institutions for mentally retarded children, but the psychoanalysts who came to dominate the profession believed such children were incapable of benefiting from psychotherapy. As historian of mental retardation Edward Shorter has noted, “The analysts had breathtakingly erroneous notions of the causes of [mental retardation], believing it to be the result of faulty parent-child dynamics, of ‘refrigerator mothers’ and the like.” During an era when few doctors chose to specialize in mental retardation, considered a hopeless and incurable condition that inevitably led to institutionalization, Cooke and Lemkau both dedicated themselves to bettering the quality of care and public programs then available for developmentally disabled children, while Harper helped to ensure that pediatricians were trained to recognize early signs of developmental problems in infants and young children.\(^{20}\)

Pediatricians believed that their specialty should take the lead in caring for mentally handicapped children, but it was the outspoken Cooke rather than the softspoken Harper who clashed with psychiatrists on this issue. In Cooke’s own department, Leo Kanner, the psychiatrist who had established the first child psychiatry service in a pediatric hospital, upheld psychiatry’s role in evaluating and treating children with delayed mental and emotional development. Harper and Lemkau had been active in reform efforts in the Maryland Department of Health and Mental Hygiene and Lemkau had also chaired one of
the earliest National Institute of Mental Health reviews of program development in mental retardation. While Lemkau was critical of the psychoanalysts’ abandonment of the field, he wanted progressive mental hygienists to oversee care for mentally disabled children within state health departments. During the 1960s, Lemkau led the Department of Mental Hygiene at Hopkins to develop an active research and training program in the epidemiology of mental retardation, and in 1965 the Department began a contract with the City of Baltimore “to provide qualified and adequate psychiatric services for the conduct of the City Health Department's full-time mental hygiene clinic for children in the Eastern Health District.”

Lemkau and Harper opposed Cooke on the issue of creating an NIH institute for studying children's diseases. Harper and Representative John Fogarty were among those who wanted children's health research to remain based in the Children's Bureau, but Cooke felt that the Bureau's personnel had 'neither the interest nor the capacities to develop intensive research programs of a basic nature in the biological or behavioral aspects of human development.' Lemkau, with close ties to NIMH, shared that Institute’s desire to retain its oversight of research on mental retardation. When Cooke, with the support of the rest of President Kennedy’s task force on health, proposed to establish a new child health institute within NIH, they ran afoul of director James Shannon. Shannon had been loyal to the categorical disease model of the agency’s early years and resisted the creation of age-based institutes, and Department of Health, Education and Welfare (HEW) secretary Abraham Ribicoff was also uninterested in a child health institute. With persistent lobbying, Cooke and the Kennedys won over Fogarty and his influential colleague Senator Lister Hill, and the National Institute of Child Health and Human Development (NICHD) was established and funded in 1963.

Although Pasamanick and Knobloch left Hopkins in 1955, the longitudinal data from their studies of Baltimore children enabled them to create a developmental screening inventory for infants based on a comprehensive clinical evaluation method that had been tested to measure its predictive value and capacity to distinguish intellectual from motor disability. Such improved screening methods were essential for accomplishing the goals of the Great Society child health legislation that aimed to provide comprehensive prevention and treatment services to millions of low-income children.

The Baltimore data were also the basis for one of the first studies of factors in childhood reading disorders, co-authored by Pasamanick and his doctoral student Ali A. Kawi.

Pasamanick drew upon the Baltimore studies of mental disease among children and adults to refute racial bias in epidemiological studies of mental illness and disability. He argued that the vast racial disparities reported in rates of mental illness, whether physiological or neurotic in origin, were "largely artifacts consequent to unreliability of diagnosis which in turn may follow upon class and caste factors in both examiners and the examined.” Pasamanick and his co-authors adjusted for the distribution of prematurity, race, sex, and socioeconomic status in the Baltimore population and found a rate of mental retardation in 15 per thousand infants, with 13 white and 21 black infants per thousand affected. In a 1964 article in the Journal of the National Medical Association, Pasamanick emphasized that this difference was not due to innate biological factors, but rather resulted from much higher black rates of prematurity and maternal complications that were rooted in poverty and lack of access to medical care.

The School of Hygiene’s studies of the complex relationship between complications of pregnancy, premature birth, abnormal neonatal conditions, and developmental disabilities were part of the foundational developmental research that was instrumental in convincing Congress to amend the Social Security Act in 1963 and 1965. These maternal and child health amendments
authorized federal grants to enable states to provide comprehensive maternity care to high-risk mothers; to develop high quality, comprehensive health services for preschool and school age children; and to broaden maternal and child health programs to serve children with handicapping conditions. The provisions of SS Title V lay the groundwork for a national maternal and child health services network. These programs were characterized by a strong federal role in funding and setting priorities, state administration and provision of mandatory matching funds, statewide health planning to meet federal guidelines, and local delivery of services.

The expansion of the scope and budgets for federal maternal and child health programs during the 1960s had three major effects: it was a major step in the evolution of SS Title V into a national health system for low-income mothers and children; it transformed public health practice by significantly expanding maternal and child health services at the state and local levels; and it benefited schools of public health by providing additional support for research and training in mental health and maternal and child health, with a heightened emphasis on public health nursing. These federal programs would provide fundamental support for the new departments of Mental Hygiene and Maternal and Child Health that grew out of the School of Hygiene’s extensive research in these areas during the 1950s.

The Division of Mental Hygiene’s research on the behavioral aspects of infant and child development provided tools for shaping public health policy, but also profoundly influenced the direction of teaching in the School’s master’s and doctoral programs. Students and faculty in Mental Hygiene and Maternal and Child Hygiene collaborated closely with the departments of Epidemiology and Biostatistics to compare normal versus abnormal mental and physical development in children from birth onward, with a focus on the origins and management of congenital and developmental disabilities. Lemkau was a major figure in psychiatry and public health nationally and internationally, yet he was also a devoted teacher and mentor who still made time to listen to students who sought advice on their own or their children’s problems.

He had long wanted to establish a laboratory component for mental hygiene courses that would illustrate course concepts and engage students in practical application. Beginning in 1957, the Mental Hygiene course on psychodynamics and personality formation included a weekly laboratory session that required students to choose a topic, formulate a specific research question, observe and record data, and report their conclusions in a final presentation to the class. Students could study the behavior of children in one of a variety of settings: in premature nurseries and preschool classrooms (to compare personality differences and reactions to sleeping and waking), in pediatric clinic waiting rooms (to compare socioeconomic differences in disciplinary methods), in a supermarket while shopping with their mothers, or in Boy and Girl Scout troop meetings (to compare age- and

Lemkau noted in one annual report that he had “carried one person connected with the School in rather intensive therapy throughout the year.”
sex-related differences among peers and between children and adults).

Mental Hygiene students also observed teenagers at high school dances and in Baltimore Traffic Court and interviewed child welfare agency workers to learn the reasons for moving foster children from one home to another. Topics that dealt with sexual behavior or attitudes gave students the opportunity to test “the extent of tolerance for studies in more or less sensitive areas.” Although several Baltimore City Public Schools personnel had initially consented to a proposed study on the problem of dysmenorrhea among high school girls in school health programs, the study was denied final approval at the top administrative level. School district officials did approve a similar project on the management of out-of-wedlock pregnancy in a school system, which uncovered “a previously unrecognized lack of communication between school and health authorities that frequently resulted in the young pregnant girls, a high-risk group, receiving inadequate prenatal care.”30

Lemkau’s first-generation research and teaching on the "continuum of casualty" applied a life course framework to understanding the impact of physiological, social, and environmental factors on children’s development, behavior, and life chances. This rich vein of inquiry would blossom further in the 1980s under Sheppard Kellam’s chairmanship with the establishment of the Prevention Research Center and an intensive long-term intervention in collaboration with the Baltimore City Public Schools.

Paul V. Lemkau" (review), AJPH 39 (Dec. 1949), 1586-87.
5 "Report on the Eastern Health District to the IHD 1943."
8 Fee, Disease and Discovery, 201-04, 218; George Rosen, “Public Health and Mental Health: Converging Trends and Emerging Issues,” in Mental Health Teaching in Schools of Public Health (Association of Schools of Public Health, 1961), 22.
14 Alan Mason Chesney Archives photo collection.
15 Lilienfeld, Pasamanick, and Rogers, “Relationship between pregnancy experience and the development of certain neuropsychiatric disorders in childhood,” 638.


21 Park, *The Harriet Lane Home*, 270-71; "Planning in Mental Retardation," *AJPH* 47.11 (Nov. 1957), 1482; Paul V. Lemkau, memo on suggestions for collaboration between the School of Hygiene and Kennedy Habilitation Center for Physically and Mentally Handicapped Children Jan. 10, 1967, JHSPH Dean’s Office Correspondence Series 3a, box 504582, "Mental Hygiene" folder; Robert E. Farber to Ernest L. Stebbins Jan. 22, 1965, JHSPH Dean’s Office Correspondence Series 3a, box 506162, “Eastern Health District 1963-65" folder.


23 Hilda Knobloch, Benjamin Pasamanick, and Earl S. Sherard Jr., "A Developmental Screening Inventory for Infants," *Pediatrics* 38.6 (1966), viii-1.


28 1961-62 SHPH Catalog, 45.

29 “Dr. Paul V. Lemkau, pioneer in mental hygiene, dies at 82,” *Baltimore Sun* Apr. 30, 1992; Lemkau bio file; 1957-58 Division of Mental Hygiene Annual Report, JHSPH Dean’s Office Correspondence Series 3a, box 505348, “President’s Report 1958” folder.

3. Mental Hygiene and Behavioral Sciences in the 1960s

In 1955, Herman Hilleboe, Health Commissioner of New York State, designated mental disorders as the single greatest cause of disability and illness in America. In the School of Hygiene, Abe Lilienfeld and Paul Lemkau both recognized mental illness as among the most common chronic diseases, which they believed could best be controlled with a synergistic combination of epidemiological and social science methods. Lemkau co-authored a Commission on Chronic Illness prevalence study of “obvious mental illness” in a representative population sample of 12,000 in Baltimore, and found that “after conservative estimation approximately 10 per cent of a noninstitutional urban population are at one moment in time mentally ill.” The School of Hygiene’s 1960 planning document likewise judged “the most pressing single problem in public health” to be mental illness, but narrowly defined it in psychiatric terms: “improved techniques for early diagnosis of mental disturbance, for isolating physiological and biochemical determinants of such behavior, for crystallizing preventive measures for such diseases both on an individual and community basis and for developing administrative practices designed to reduce the present massive drain of such behavioral difficulties upon society.” More than half of U.S. hospital beds were occupied by mental patients, and the report called for “prompt epidemiological exploration coupled with multidisciplined laboratory research on biochemical, pharmacological and physiological fronts, all directed toward solving the problem of mental health.” In the view of the Department of Psychiatry and the medically-oriented faculty in the School of Hygiene, “the problem of mental health” was one of correcting abnormal behavior in individuals.

The 1960s was a watershed decade that elevated the status of social and behavioral sciences in academics generally and in public health particularly. From the federal to the local level, public health agencies accorded increased funding and attention to preventing and treating mental illness, and also initiated new programs that decriminalized substance abuse and treated it as a form of mental illness. In schools of public health, the evolution of social epidemiology methods to address problems such as sexually transmitted disease and narcotics addiction had important broader implications for risk factor epidemiology and behavioral interventions to improve health. Behavioral sciences evolved to become a methodological tool that, alongside biostatistics and epidemiology, could be used to study any public health problem.

The Division of Mental Hygiene had played increasingly significant roles in the School’s teaching and research programs, but it did not become a full department until 1962. By the mid-1950s, most schools of public health had reduced their emphasis on traditional laboratory sciences such as bacteriology in favor of applied fields including behavioral sciences, sociology, and public health administration. Johns Hopkins, however, clung to its traditional strength in lab-based research and postponed the development of any new social or behavioral science courses. Ruth Freeman, head of the public health nursing division of the Department of Public Health Administration, was a member of the American Public Health Association task force that recommended expanding the public health curriculum to increase content from social and behavioral sciences, administration, economics, and communications. Freeman urged Dean Ernest Stebbins to apply these recommendations at the School of Hygiene, exclaiming that she wanted Johns Hopkins to be “ahead of the parade instead of behind it!”

Freeman identified psychiatric public health nursing as an important growth area and recommended enrolling more nurses and adding a nurse to the Division of Mental Hygiene faculty. Freeman and Lemkau recruited Betty Cuthbert, coordinator of behavioral sciences at the Johns Hopkins
Hospital School of Nursing. Cuthbert was in the 1959 MPH class with Wallace Mandell and Abraham Schneidmuhl, who were the only three MPH students that year with mental health experience. Cuthbert joined the Mental Hygiene faculty and led efforts to coordinate training in psychiatric and public health nursing among the Johns Hopkins Hospital, School of Medicine, and School of Hygiene. Yet as the School of Hygiene shifted more heavily toward research during the 1960s, faculty who were not primarily research-oriented lost influence, including Freeman and Cuthbert. Nurses were also at a disadvantage because available grants in their field stressed training, not research, and the Department of Mental Hygiene slowly lost its early focus on psychiatric nursing.5

At the medical school, the Department of Psychiatry embraced the social and behavioral sciences. The Introductory Psychiatry Year II clinical course was renamed Social Sciences and Medical Psychology in 1959 and changed again to The Sciences of Behavior in 1961. The course introduced "the fundamental concepts and methods of psychology and sociology and their interrelationships with anatomy, biochemistry and physiology as they pertain to psychiatry and to medicine generally" as well as "the implications of all of these basic sciences for human personality and behavior." After the Department of Psychiatry was renamed Psychiatry and Behavioral Sciences in 1966, the course surveyed "the behavioral sciences by examining normal and pathological personality functioning reflected in data and concepts derived from clinical, empirical and experimental studies in the fields of human development, learning, communication, and neurology."6

Similar changes were afoot in the School of Hygiene, which proposed to establish a new Department of Behavioral Sciences in 1960. Significantly, however, the School’s long-range plan did not mention the existing Division of Mental Hygiene, which had never been oriented toward clinical or basic science research. Lemkau held a joint appointment in the medical school but had little interest in collaborating with somatic psychiatrists. His catalog statement for Mental Hygiene omitted the biological causes and drug treatments for mental disorders; instead, these conditions were "closely related to cultural, sociologic, and family environment . . . as well as to the impact of experiences at different periods of development of the central nervous system and personality."7

Lemkau and his close ally Paul Harper, head of the Division of Maternal and Child Health, had lobbied Stebbins for years to grant their divisions departmental status. As dean, Stebbins guided the School through a period of financial hardship which ended in 1958 when Congress passed the Hill-Rhodes Act providing direct grants to schools of public health. With the School on more stable financial footing, four new departments were established in 1962: Mental Hygiene, Maternal and Child Health, Chronic Diseases, and Radiological Sciences. They were joined in 1967 by a new Department of Behavioral Sciences, which emphasized a sociological approach to understanding population health.

Throughout the 1960s, the School of Hygiene welcomed more sociologists, psychologists, economists, and demographers who contributed to public health research on family planning, community mental health programs, social and cultural factors in the etiology of chronic diseases and aging, comparative animal behavior, and international health manpower planning. By 1963, ten courses in six departments featured social and behavioral science content, including the economic and political aspects of financing and organizing health services. The most fundamental such course, Behavioral Science Perspectives in Public Health, introduced methods in anthropology, sociology, and psychology as applied to "socially-induced pathology in the individual." As a wave of concern over the deteriorating morals of America’s youth washed over the media and popular culture, School of Hygiene students discussed case studies on the problems of “mental deficiency, neglect,
delinquency, illegitimacy, abortion, and birth control."8

In 1968, the School of Hygiene opened its new $4.5 million eight-story Behavioral Sciences Wing, which enabled the School to double its enrollment. In 1969, the School’s ten-year planning document proposed to add 100 faculty positions by 1978-79, with 22 in Behavioral Sciences, the largest increase of any department. This wild-eyed optimism for the future of Behavioral Sciences flowed from the charisma and vision of founding chair Sol Levine, a then-steady torrent of federal grant money, and the expectation that the department would lead the way in promoting interdepartmental research and turning out large numbers of doctoral students.9

The 1960s social science zeitgeist increased federal funding for doctoral and postdoctoral mental health training. Lemkau and his successor as chair, Ernest Gruenberg, both emphasized the fundamentally social nature of mental health and illness. Lemkau declared in 1961, “the facts [from community mental health surveys] speak loudly of the association between social welfare and psychiatry, between social welfare planning and psychiatric planning. From a therapeutic viewpoint, no modern psychiatrist imagines that psychiatric illness is cured by absolutely individual treatment. . . . ‘A sound mind in a sound body’ is no longer an adequate aim. Social psychiatry is more than a fad, and the aim must now be ‘a sound mind in a sound body, a sound family and a sound community’ if it is adequately to express present health notions.”10 Lemkau, Gruenberg, and other advocates of social psychiatry and preventive mental health influenced the National Institute of Mental Health to offer specialty training fellowships in fields such as cultural anthropology, sociology, and social psychology, which were considered basic sciences for mental health and psychiatry.11

The Department also expanded its activities and collaborations with laboratory scientists. When David E. Davis left the Department of Pathobiology in 1960, Mental Hygiene inherited his Division of Vertebrate Ecology and renamed it the Laboratory of Comparative Behavior. Mental Hygiene maintained ties to the Pathobiology studies of population ecology, and the laboratory trained students to observe and analyze the social behavior of animals in the field in order to understand how different species maintained their survival through mechanisms such as mating and aggression, and how these behaviors were governed by hormones, heredity, learned experience, and environment.12 The program in comparative behavior also included Stephen A. Weinstein in Environmental Medicine. Weinstein held a joint appointment in Psychiatry and Behavioral Sciences in the School of Medicine, where he directed the Laboratory of Behavioral Physiology. He started the journal Communications in Behavioral Physiology and Pharmacology in 1966.13 In the Department of Biochemistry, Bacon F. Chow’s research team studied the effects of low protein diets in pregnant rats on the physical and behavioral development of offspring. The researchers also tested methods of reversing these adverse effects following birth, and found that feeding the offspring crude pituitary extract could prevent both physical and behavioral abnormalities from developing.14

With this promising foundation, Mental Hygiene began offering a PhD in comparative animal behavior in 1965, directed by Edwin Gould, whose research on bats and shrews involved observation of mother-infant interactions (otegeny) and communication during echolocation. Gould also studied homing behavior in turtles by fitting them with tiny radio sets to track them as they crawled down the halls of the School of Hygiene. During the 1970s, Gould’s research received $50,000 annually from the National Science Foundation and the National Institute for Child Health and Human Development.15

Another researcher who used animal models to study infant development and behavior was Wallace Mandell, who observed the effects of maternal alcohol use on rats and their young. With their similar research interests, Mandell and Gould taught a course
on comparative mammalian behavior and infant development. By the early 1970s, researchers from several countries had identified maternal alcoholism as a factor in birth defects and premature birth, and had also observed withdrawal symptoms in infants born to alcoholic mothers. But studies of human alcoholic mothers were complicated by additional variables such as race and socioeconomic status, as well as levels of nutrition, prenatal care, stress, and anxiety, which made it difficult for researchers "to divide the factors and isolate the problems caused by the ethanol component, particularly in prospective studies." Mandell concluded, "Since the proper control over genetic, environmental and nutritional variables is difficult in a population of alcoholic patients, investigations using animal models are desirable." In his NIAAA grant project, Mandell used rats to study the effects of gestational ethanol use on prenatal development and the offspring’s subsequent behaviors. Experimental and control groups of mothers were compared for performance on development and behavioral tests, and their offspring were equipped to self-administer ethanol intragastrically to test their sensitivity to alcohol. To isolate the effects of ethanol from those of nutritional stress, Mandell replaced the calories from ethanol intake with an equivalent amount of carbohydrate, and also fed the control and experimental animals in pairs.

As the largest sponsor of research in the School of Hygiene and Public Health from 1960 to 1980, the NIH profoundly influenced the size, structure, and agendas of the School's departments. Prior to 1970, Mental Hygiene had received NIMH training grants but little for research; after 1970, NIH funding guided the outcome of administrative realignments within the School, and ensured that Mental Hygiene remained an independent department.  

5 1961-62 SHPH Catalog, 62, 75, 87; 1964-65 SHPH Catalog, 45; Mandell interview.
6 1964-65 SOM Catalog, 113; 1966-67 SOM Catalog, 117.
7 1961-62 SHPH Catalog, 45.
8 Proposal for a Program in Sociology and Public Health, 3-5; 1959-60 SHPH Catalog, 43; 1960-61 SHPH catalog, 45; 1962-63 SHPH Catalog, 55-57; 1963-64 SHPH catalog, 35, 55; 1964-65 SHPH Catalog, 56.

12 1961-62 SHPH Catalog, 52; Paul V. Lemkau, Report of the Department of Mental Health 1963-64, “Mental Hygiene” folder.


16 Mandell bio file; Wallace Mandell to John C. Hume Oct. 3, 1975, 3a D.O. Correspondence, box R111F6, “Mental Hygiene” folder.
4. Treating substance abuse

NIH grants substantially expanded clinical and basic science activities throughout the School of Hygiene, even in departments not traditionally oriented toward laboratory investigation such as Mental Hygiene. The Department was an early pace-setter in alcohol and drug abuse epidemiology, and its faculty served as key consultants to develop the substance abuse research programs of NIMH and two new NIH institutes: the National Institute on Alcoholism and Alcohol Abuse (NIAAA) and the National Institute on Drug Abuse (NIDA). During the 1970s, federal grants for substance abuse prevention and treatment were the primary source of growth for the Department.

After the introduction of powerful new psychoactive drugs such as thorazine, psychiatry was decoupled from many forms of organic disease, and substance abuse emerged as an important new area of clinical and basic science research. Abraham M. Schneidmuhl, director of the mental health clinic in the Eastern Health District, had worked with Marcia Cooper's Mothers Advisory Service and found that many of the children's problems were connected to their parents' alcoholism. In 1960, Schneidmuhl founded an alcoholism clinic with support from the city and state health departments. A psychologist and medical social worker provided weekly group counseling for alcoholic tuberculosis patients. The clinic was advertised on local jazz and R&B radio stations, and it quickly attracted patients of both sexes and all age, racial, and social groups.1

Schneidmuhl worked with his MPH classmate Wallace Mandell to establish the EHD alcoholism clinic on a firm footing. They saw a major need for programs to train qualified staff to administer drug and alcohol treatment programs, and Mandell helped formalize a curriculum for a six-month alcoholism counselors training program, which grew rapidly. After Mandell left Baltimore to work "within a public health conceptual framework as to how to bring mental health to Texas," he continued to consult with Schneidmuhl and further expanded the program by obtaining a training grant from the National Institute of Mental Health. But when Mandell approached the Johns Hopkins Hospital about hosting the training program, hospital officials replied that "we train doctors."2

Schneidmuhl and Mandell's work on alcoholism was part of the medicalization of "social diseases" such as alcoholism and syphilis that were transformed from objects of moral condemnation to targets of public health concern. After Prohibition ended in 1933, levels of social drinking increased along with what psychiatrists, sociologists, social workers, and other experts labeled "excessive, pathological drinking." Replacing the former cultural authority of the temperance movement was a group of academic researchers and public health educators who framed habitual heavy drinking as a new disease, alcoholism, that struck victims with susceptible physiological and psychological traits, whom they labeled alcoholics. During the 1940s, the founding of the Yale Center for Studies on Alcoholism, directed by biostatistician and physiologist E. M. Jellinek, and the National Committee for Education on Alcoholism, headed by publicist Marty Mann, signaled an era of increased public awareness of and funding for alcoholism as a problem that could be solved by scientific research and therapeutic intervention.3

The alcoholic beverage and tobacco industries embraced this paradigm, which isolated alcoholism and respiratory problems as individual aberrations from the otherwise benign, even beneficial, rituals of social drinking and smoking depicted in advertisements and enjoyed by millions of Americans. In 1954, the tobacco industry created the Council on Tobacco Research. In 1969, the United States Brewers Association enlisted Thomas B. Turner, the former chair of Microbiology in the School of Hygiene and dean of the School of Medicine from 1957 to 1968, to establish the Medical Advisory Group.
(forerunner of the Alcoholic Beverage Medical Research Foundation). The MAG advised the association’s members and conducted research on the positive and negative health effects of alcohol consumption. Key to both industries’ support for research on alcohol and tobacco use was their contention that their products were not in themselves addictive, and most consumers could use them responsibly without harming their health. Accordingly, the Carling Brewing Company, which produced 800,000 barrels of beer annually, hosted Schneidmuhl’s weekly alcoholism treatment seminar in May and June 1964.4

After the Department of Mental Hygiene recruited Mandell in 1968, he formalized the alcoholism counselors’ training program in 1971 as an MPH track. A few years later, with a training grant from the National Institute on Alcoholism and Alcohol Abuse, the program prepared epidemiologists and administrators for substance abuse treatment programs—the first of its kind in the country. By the 1980s, many directors of state programs were Hopkins graduates. Yet the NIH began to tighten requirements for training grants and applicants had to prove that their program was filling a shortage in a high priority professional field. The counselor training program was ultimately a casualty of the debate over whether the state directors should have an MPH and background in public health administration. As state public health agencies became more politicized and turnover increased, the demand for administrators with public health training waned. As Mandell admitted, “We lost that battle.”5

Lemkau had tapped Mandell to lead new research initiatives that focused on preventing and treating drug and alcohol abuse and drew from a wellspring of federal mental health grant programs. Mandell, a clinical and social psychologist, had been on the front lines of New York City’s heroin epidemic while working with disadvantaged urban youth at the Staten Island Mental Health Society’s Wakoff Research Center. As a member of New York Governor Nelson Rockefeller’s commission on drug abuse, he had assisted in establishing therapeutic communities to fill the gap in the mental health system, which excluded drug addicts and alcoholics from treatment.6

Unlike alcohol or tobacco, narcotics were illegal and popular culture invariably demonized drug users. When the Public Health Service Narcotic Hospital at Lexington, Kentucky, opened in 1935, Surgeon General Hugh Cumming had called narcotics addiction an endemic but treatable disease whose victims could be rehabilitated and returned to society. The majority of work in psychopharmacology had been done at the hospital’s Addiction Research Center, led by Abraham Wikler, who published The Relation of Psychiatry to Pharmacology in 1957. Yet until the late 1960s, psychiatry was dominated by psychodynamics and most psychiatrists considered addiction research a backwater. Public opinion and federal funding coalesced around finding a solution to America’s drug problem, portrayed in a series of often sensationalistic exposés of the heroin epidemic that struck inner cities and returning Vietnam veterans.7
Mandell was among a new breed of policy-oriented mental health researchers who fixed their sights on drug abuse and brought a previously obscure field to the forefront of psychiatry. Others included Danny Freedman, chair of psychiatry at University of Chicago and the world expert on LSD and hallucinogens, and Jerome H. Jaffe, a leading advocate of methadone maintenance treatment for heroin addiction who became the first drug czar in 1971 under President Richard M. Nixon. As Jaffe recalled, “We probably broke all the rules for psychiatry as we had been taught it—that you maintain your distance, you don’t form personal relationships. The passivity of [psycho]analysis was not appropriate in the arena in which I found myself.”8 Jaffe served as director of the NIDA Addiction Research Center in Baltimore from 1984 to 1989 and as director of the SAMSA Office of Evaluation, Scientific Analysis and Synthesis from 1990 to 1997. He is currently a clinical professor in the Department of Psychiatry at the University of Maryland School of Medicine with an adjunct appointment in the Department of Mental Health at the Bloomberg School.9

In the 1970s, federal mental health policy was redirected toward alcohol and drug abuse treatment services and program evaluation. NIMH was reorganized in 1973 as a unit of the new Alcohol, Drug Abuse and Mental Health Administration (ADAMHA), which also included NIAAA and NIDA. These entities provided strong financial support for research on substance abuse and also lay the foundation for the major expansion of the treatment system.10 As Mandell recalled, when Nixon charged him and Richard A. Lindblad, associate director of NIDA, with creating a network of drug addiction treatment services, there was no precedent, so they based their proposals for drug abuse clinics on the alcoholism model. By 1973, the treatment programs had been up and running for several years and Nixon selected Mandell to evaluate the NIMH grant program in drug abuse research. On September 11, 1973, the president announced to a White House conference on the heroin problem that “we have turned the corner on drug addiction in the United States.”11 Yet Mandell could not find strong evidence that NIMH grant-supported programs were achieving better results than those without federal support. Nixon was furious and sent Mandell packing back to Baltimore. When he told John C. Hume, dean of the School of Hygiene, Hume said philosophically, “Presidents come and go but the university remains.” Still shaken from his encounter with Nixon, Mandell was so relieved to hear Hume’s encouraging response that “I could have kissed him.”12

Alcoholism proved somewhat less politically hazardous than drug abuse. To house a residential alcoholism treatment facility, Mandell and Schneidmuhl converted Baltimore's Old Bohemian brewery, where workers had previously lived onsite. Instead of simply releasing patients with no follow-up, as existing hospital programs did, the residential program used the period immediately after detoxification to educate recovering alcoholics and connect them with outpatient resources. This evolved to become the Johns Hopkins Hospital comprehensive alcoholism treatment program, which Mandell launched with a grant from NIAAA.13

In 1972, Mandell also established the JHU occupational alcoholism treatment program, which offered outpatient counseling and medical services as well as in-patient detoxification to 130,000 employees of twelve Baltimore companies. The program received funding from the U.S. Department of Labor to prevent job loss among problem drinkers as well as to counter the negative effects of workplace alcoholism on productivity, and it became a model for other employee treatment programs. But when Department of Labor policy precluded Mandell from maintaining control of the data generated by the program, Dean Hume made him return the $300,000 grant. Perhaps Mandell’s most far-reaching research on the epidemiology of substance abuse was a NIAAA study begun in 1979 of relationships among alcohol control policies, characteristics of counties, and sex- and race-
specific liver cirrhosis mortality in over 3,000 U.S. counties and 100 cities.  

When Paul Lemkau announced his retirement as chair of Mental Hygiene in 1974, Dean Hume appointed a search committee to find a new chair. Abe Lilienfeld, a key collaborator in the Department's early studies of prematurity and developmental disabilities, had just retired as chair of Epidemiology and now served as interim chair of Mental Hygiene. The search committee surveyed the current state of the fields of mental health and psychiatry, which were "in confusion and disarray" because "the amateur counsellors [sic] and encounter groups are taking over." According to the committee, half of all medical school psychiatry departments were led by acting chairmen. Moreover, only four schools of public health housed departments of mental hygiene or the equivalent (and all but the department at Johns Hopkins would fold by the decade's end). The committee concluded, "the need for new initiatives in the field of Mental Health is apparent."  

Initially, dean emeritus Ernest Stebbins called to offer the chairmanship to Alan Miller, who was preparing to retire as New York State Mental Health Commissioner. Miller declined in favor of becoming dean of students at Albany Medical College, where he led in establishing a community mental health center. Miller suggested his longtime New York colleague Ernest M. Gruenberg, who had headed the state's Mental Health Research Center and was now chair of psychiatry at Columbia University. After 52 meetings, the search committee offered Gruenberg the chairmanship in May 1975. In addition to his considerable administrative experience in mental health agencies, Gruenberg had published extensively on mental health epidemiology and the distribution of mental disorders in populations, specializing in evaluating the effectiveness of integrated services to treat schizophrenia.  

The search committee had also faced fiscal and administrative pressures from within the University for some form of merger involving Mental Hygiene, Behavioral Sciences, and Psychiatry, but all three remained independent departments. Although Mental Hygiene remained a relatively small department, Gruenberg and Mandell's success in attracting federal grants from a range of agencies enabled research activities and fellowship support to grow. In 1970-71, the Department of Behavioral Sciences had been significantly larger than the Department of Mental Hygiene as measured by budget, faculty, and student enrollment, and both departments received roughly three-quarters of their funding from federal grants. But by the end of the decade, federal grants enabled Mental Hygiene's budget to more than triple, while Behavioral Sciences' budget shrank and became dependent on general funds for nearly two-thirds of its support.
Mental Hygiene External Funding in 1974

<table>
<thead>
<tr>
<th>Investigator</th>
<th>Research topic</th>
<th>Annual amount</th>
<th>Funding agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gould</td>
<td>Maternal-infant behavior and echolocation</td>
<td>$50,000</td>
<td>NSF and NICHD</td>
</tr>
<tr>
<td>Lemkau</td>
<td>EHD child mental hygiene clinics</td>
<td>$70,000</td>
<td>City of Baltimore</td>
</tr>
<tr>
<td>Lemkau</td>
<td>Drug abuse demonstration project</td>
<td>$80,000</td>
<td>NIDA</td>
</tr>
<tr>
<td>Lemkau</td>
<td>Mental health in public health</td>
<td>$100,000</td>
<td>NIMH</td>
</tr>
<tr>
<td>Lemkau</td>
<td>Training grant</td>
<td>$55,000</td>
<td>NIMH</td>
</tr>
<tr>
<td>Mandell</td>
<td>Substance abuse training and research</td>
<td>$750,000</td>
<td>Dept. of Labor/ NIAAA</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td><strong>$1.15 million</strong></td>
<td></td>
</tr>
</tbody>
</table>


Behavioral Sciences and Mental Hygiene Departmental Funding, 1970-71 and 1979-80

<table>
<thead>
<tr>
<th>Year</th>
<th>Department</th>
<th>Total Budget</th>
<th>General Funds</th>
<th>Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970-71</td>
<td>Behavioral Sciences</td>
<td>$353,000</td>
<td>$29,000</td>
<td>$271,000</td>
</tr>
<tr>
<td></td>
<td>Mental Hygiene</td>
<td>$237,000</td>
<td>$50,000</td>
<td>$188,000</td>
</tr>
<tr>
<td>1979-80</td>
<td>Behavioral Sciences</td>
<td>$281,000</td>
<td>$181,000</td>
<td>$88,550</td>
</tr>
<tr>
<td></td>
<td>Mental Hygiene</td>
<td>$962,000</td>
<td>$307,000</td>
<td>$620,000</td>
</tr>
</tbody>
</table>

In the 1980s, the social science methods originally used to address “social diseases” such as syphilis and substance abuse were marshaled against the AIDS epidemic. The career of one of Mandell’s students illustrates how social and behavioral science methods profoundly influenced the development of risk factor epidemiology. In the early 1970s, David Celentano had taken a year off after earning a bachelor’s degree at Hopkins to work in the University of Maryland’s methadone maintenance program “in the deepest, most horrible part of Baltimore, really getting to see what human suffering and misery were all about. And when it came time to consider going to medical school, I thought, ‘I’m never going to save them one at a time.’” Celentano instead enrolled in Mandell’s eleven-month alcoholism counseling program, which included rotations at different inpatient and outpatient treatment centers in Baltimore. Celentano was in one of the earliest cohorts, “a very close-knit group” of about a dozen mostly male students, including three or four recovering alcoholics. The students discussed their field experiences and learned new methods for program evaluation. At the time, substance abuse treatment programs were rarely expected to show proof of their effectiveness. Even the Baltimore City Health Department program was small and had no coordinated data.18

Celentano enrolled as a doctoral student in Behavioral Sciences on an NIAAA fellowship. His dissertation with Mandell and epidemiologist George Comstock addressed the epidemiology of alcoholism at a community level in Hagerstown, Maryland. Celentano learned to compare different ways of estimating the prevalence and risk factors for alcoholism. His doctoral training combined “the strengths of epidemiological methods and the theoretical rigor of the social sciences,” which developed Celentano’s “entire approach to looking at risk factors and [their] immutability for different kinds of health conditions.”19

Celentano joined the Behavioral Sciences faculty in 1978. In the 1980s, Celentano and Mandell applied their expertise in substance abuse prevention and treatment to addressing the AIDS epidemic, and they advised B. Frank Polk, who headed the School’s infectious disease epidemiology division, on the School’s early grants to explore the connections between HIV infection and injection drug use.20 Celentano was a co-investigator for the ALIVE (AIDS linked to the intravenous experience) observational cohort study of HIV infection among 3,000 intravenous drug users in Baltimore since 1987. Using baseline data from the ALIVE study, Celentano’s group demonstrated that users who bought drugs or syringes at shooting galleries (clandestine locations to buy and use drugs, usually in abandoned housing) were at much higher risk of acquiring HIV from using dirty needles. This insight led to further research on who used the shooting galleries and why, which addressed the upstream factors rather than just the route of the infection.

With ALIVE principal investigator David Vlahov, Celentano deployed data from the ALIVE study to overcome the resistance of the Baltimore City Council and the Maryland State Legislature, resulting in the establishment of the largest needle-sharing program in the country. Needle-sharing programs have become a prime example of how public health interventions must address social and behavioral factors in order to be effective.21 The AIDS epidemic bolstered the legitimacy of social and behavioral science methodologies and promoted their widespread adoption as
indispensable tools for public health research and practice. In 2009, Celentano became the first non-MD in the School’s history to chair the Department of Epidemiology, so that three of the School’s ten departments were headed by social or behavioral scientists.

During the 1980s, faculty from Mental Hygiene and the Johns Hopkins Health Services Research and Development Center conducted foundational research on substance abuse epidemiology in the U.S., particularly the quality and availability of substance abuse treatment services and their impact on health care organization and financing. Controlling the risks and minimizing the damage associated with drug and alcohol use remains an epic task for U.S. and international policymakers. Today, about one-third of the Department’s faculty focus on the epidemiology and prevention of substance abuse, the most prevalent behavioral disorder.

The Department’s research has shown that school-based interventions among early elementary-age children are highly effective at preventing or reducing the use of alcohol, tobacco, and drugs later in life. Mental Health faculty have also developed successful family and community-based interventions to prevent the onset of drug use among at-risk teens and to rehabilitate those already using alcohol and other drugs. Using the innovative methods they developed and tested, Mental Health faculty are employing new technologies for understanding individual and ecological sources of craving for addictive drugs. Their findings will be used to craft evidence-based programs to prevent relapse that can improve the health and well-being of whole communities. One promising new approach for developing effective prevention methods is to analyze neighborhoods’ influence on use of alcohol and illegal drugs.22


2 Bliss, “Abraham Schneidmuhl”; Mandell interview.


5 Mandell interview.

6 Philip D. Bonnet, "Mental Hygiene Search Committee," Nov. 6, 1974, "Sch of Hyg Search Committee for Chairman, Department of Mental Hygiene" folder; Wallace Mandell bio file, AMC; Wallace Mandell, Sheldon Blackman, and Clyde E. Sullivan, Disadvantaged Youth Approaching the World of Work: A Study of Neighborhood Youth Corps Enrollees in New York City (Wakoff Research Center, Staten Island Mental Health Society, 1969); Bliss, “Abraham Schneidmuhl”; Mandell interview.


9 Jerome H. Jaffe CV, JHSPH Faculty Database.

12 Mandell interview.
13 Mandell bio file; Mandell interview.
14 Ibid.
15 “Report of Mental Hygiene Search Committee to Department Chairmen (Advisory Board)” Jan. 7, 1974, and Russell H. Morgan to David E. Price Apr. 17, 1975, JHSPH Dean’s Office Correspondence Series 3a, box R111F6, “Sch of Hyg Search Committee for Chairman, Department of Mental Hygiene” folder; 1974-75 University of North Carolina School of Public Health Catalog, 86.
16 JHSPH Dean’s Office Correspondence Series 3a, box R111F6, “Sch of Hyg Search Committee for Chairman, Department of Mental Hygiene” folder; Miller to Eaton June 12, 2013; Ernest M. Gruenberg CV.
18 David Celentano interview August 9, 2011.
19 Ibid.
20 Mandell interview.
In 1988, Paul Lemkau wrote in the *American Journal of Public Health*, “Mental diseases in all their protean forms again appear to have outwitted the enthusiasts for an easy-to-understand panacea.” Lemkau spoke with over half a century of experience as the foremost advocate of a coordinated approach to preventing and treating mental illness that addressed the full spectrum of patient needs in both hospital and community outpatient settings. At the turn of the twentieth century, proponents of the centralization of long-term psychiatric care in state hospitals had argued that “although less expensive, [local care] was substandard and also fostered chronicity and dependency. Conversely, care and treatment in hospitals, though more costly initially, would in the long run be cheaper because it would enhance the odds of recovery for some and provide more humane care for others.” Ironically, the same arguments were refashioned in the postwar decades to justify the opposite policy of decentralization of care and devolution of authority to local communities, with cost savings as a driving force in policy change.

Often lost in condemnations of the abuses and failings of state mental institutions was the fact that they provided more long-lasting and comprehensive social welfare benefits, including food, housing, and medical care, than would otherwise have been available to most indigent patients, particularly those with severe mental (and often physical) disabilities. During the mid-twentieth century, in-patient psychiatric care in state hospitals was the largest item in many state budgets and usually well above total public health expenditures. For example, Alan D. Miller, who left NIMH to serve as New York State Commissioner for Mental Hygiene from 1966 to 1974, oversaw the state's largest agency and among the largest health agencies in the nation, with a budget of over $400 million to care for more than 111,000 patients in 19 state hospitals and 10 state schools for developmentally disabled children. As late as 1980, the $6.5 billion spent by states on mental institutions equaled the amount for public health services and represented one-sixth of total state social welfare spending. In the wake of deinstitutionalization, the noted neurologist and psychiatrist Oliver Sacks saw a steady stream of discharged patients who returned for readmission based on their experiences that “Bronx State [Hospital] is no picnic, but it is infinitely better than starving, freezing on the streets, or being knifed on the Bowery.” By the 1980s, the mental health reform pendulum had swung back as some critics condemned community-based care for discharged mental hospital patients as “in many ways a more demoralizing, dehumanizing, and dangerous situation” than mental hospital care had been.

While the debate raged on between proponents of community-based versus hospital-based mental health care, the Department of Mental Hygiene at Hopkins launched two major studies that would define its mission for the next three decades: the Epidemiologic Catchment Area Study, begun in 1979, and a classroom-based intervention...
initiated with the Baltimore City Public Schools in 1983 to identify aggressive and disruptive behavior in early elementary school students and prevent subsequent negative outcomes such as poor school performance, substance abuse, and suicide. These studies established the department's twin research emphases on epidemiology and prevention, both emphasizing a life course epidemiologic approach to inform population-based studies.

Shortly after Jimmy Carter took office in 1977, he established the President's Commission on Mental Health, chaired by First Lady Rosalyn Carter. The Commission issued a report calling for expanding research to accurately determine the prevalence and incidence of mental disorders. NIMH created the Epidemiologic Catchment Area Program (ECA) to measure the prevalence of mental illness in the general population in sites around the U.S. The agency recruited William W. Eaton from his position at McGill to coordinate the ECA program.

At Hopkins in 1979, Gruenberg teamed with Morton Kramer in Mental Hygiene, Paul McHugh, chair of the Department of Psychiatry, and Sam Shapiro, director of the Johns Hopkins Health Services Research and Development Center, to apply for a grant to establish Baltimore as one of five ECA research sites. Kramer led the competition, since he had been the first Chief of Biometrics at NIMH and had founded its Office of Program Planning and Evaluation in the 1960s, which evolved to become the Division of Biometry and Epidemiology (including the Center for Epidemiologic Studies). Kramer, a 1939 Sc.D. graduate of the School of Hygiene and Public Health, was the first biostatistician to focus exclusively on mental illness. His major achievements include creating a model reporting system for mental hospital admissions, discharges, and patients in residence, and also establishing psychiatric case registers at various U.S. locations. These reporting systems and registries became indispensable in efforts to chronicle and understand de-institutionalization of patients with chronic mental illnesses during a new era of psychopharmacology. Kramer was so effective at ensuring that epidemiological methods and research received a high priority.
in NIMH grant programs that in 1968, Science magazine reported that he had "contributed more sense and less nonsense to [NIMH] policy developments and public statements than any other member of its staff." He served on the Johns Hopkins Mental Hygiene faculty from 1976 to 1984.7

The survey employed lay interviewers who underwent an intense two-week training program to administer the complex survey instrument. In order to determine incidence, or the rate at which new cases form, as well as the overall prevalence of mental illness, the study required sites to conduct an initial survey and a follow-up survey one year later. The newly revised DSM-III Diagnostic and Statistical Manual of Mental Disorders introduced explicit diagnostic criteria and classifications of mental illness. The ECA survey operationalized these classifications and generated psychiatric diagnoses by incorporating the clinical diagnosis criteria for the most prevalent conditions, including depression, schizophrenia, panic disorder, obsessive-compulsive disorder, and substance abuse and dependence. Once the survey identified individuals with a definite or probable psychiatric disorder, follow-up questions asked about utilization of mental health services, including what types of obstacles may have interfered with seeking treatment. The ECA studies revealed that about one-third of Americans would suffer from at least one type of mental illness during their lifetimes, and that mental disorders went untreated in many cases.8

The ECA Program was the first U01 cooperative grant program in the PHS, which allowed federal agency staff to negotiate the terms of a grant and influence its development. ECA’s three principal collaborators at NIMH were Ben Locke, Darrel Regier (who became director of the American Psychiatric Institute for Research and Education), and Bill Eaton, Assistant Chief of the Center for Epidemiologic Studies. Eaton noted that “the degree of psychological introspection in the culture had changed a lot by 1980. You could come and ask people, basically, have they ever heard voices and they won’t be completely offended or turn you out the door.” 9

Carolyn L. Gorman, who began working as an interviewer for the ECA study in 1979, loved going door-to-door in East Baltimore. Few residents refused to participate, despite the personal nature and length of the survey, which took about one-and-a-half hours to complete. Gorman recalled that the questions on mental illness were less likely to offend respondents than those on drug use. By sizing up a house based on the paint job and the presence or absence of toys and flowers, Gorman could usually predict whether the inhabitant would participate. She had a collection of Polish dolls, and would take a doll with her on interviews. When one of the many Polish women in the neighborhood saw her doll, they would always agree to take the survey. At the Survey Research Associates office on 23rd Street, Gorman trained most of the 30 interviewers who conducted the ECA survey.10

James C. Anthony, an epidemiologist in Mental Hygiene who played a key role in the ALIVE study, contributed to the Baltimore ECA study’s sophisticated design, and Marshal Folstein advocated incorporating the Mini-Mental Status Exam into the survey to identify cognitive impairment and dementia. Shapiro designed the questions on mental health services utilization, which were required for all five ECA sites. Gruenberg and McHugh, both psychiatrists, were very skeptical of using a survey interview to diagnose mental illness. The Baltimore grant proposal included a clinical reappraisal component that requested all the respondents deemed positive for a mental disorder and a sample of the remainder to complete a structured interview with a psychiatrist, who was blinded to the results. The reappraisal checked the accuracy of the survey questionnaire by comparing the results with the clinician’s diagnosis. A total of 810 Baltimore respondents underwent the appraisal, which represented a major effort that confirmed the study’s scientific validity.11
At NIMH, Bill Eaton helped to guide the Baltimore study’s design and argued to include its clinical reappraisal component at all the ECA study sites. After winning an ADAMHA Administrator’s Award for his implementation of the ECA Program, Eaton joined the Department of Mental Hygiene faculty in 1983. The Baltimore study was unique among the ECA sites for conducting additional follow-up surveys beyond the one-year mark. After the first two surveys in 1981 and 1982, the Baltimore study re-interviewed the participants in 1993 (led by Eaton as principal investigator, Anthony as co-principal investigator, and Joseph Gallo as project director) and again in 2004. One of the somewhat surprising findings was the degree to which major depressive disorder was predictive of the new occurrence of important physical conditions such as type 2 diabetes, heart attack, stroke, and breast cancer. The Department of Mental Health is currently analyzing the data from four of the five ECA sites and correlating it with the National Death Index to determine the influence of psychopathology on mortality. The outcome will constitute the largest population-based study of mental disorders and mortality ever conducted, with more than 300,000 person-years of observation.  

As New York City’s commissioner of mental health in the mid-1950s, Lemkau had worked very hard to get the school system to establish the equivalent of a child guidance clinic in the schools, which achieved modest success. Lemkau believed that public schools were the critical place for prevention and had wanted to initiate collaboration with the Baltimore City school system. Yet the Department made little progress toward this goal until 1982, when Sheppard G. Kellam was appointed chair. Kellam, a public health psychiatrist, has played a major role in establishing concepts and methods for prevention science and expanding knowledge about early risk factors and their malleability. As a faculty member in the Department of Psychiatry at the University of Chicago, Kellam met the famous community organizer Saul Alinsky, who was assisting the residents of the surrounding inner-city Woodlawn neighborhood in their efforts to confront the city government and the University of Chicago. At the community board’s urging, Kellam helped to develop programs to enable psychiatric hospitals to provide continuity of care with an emphasis on prevention. Kellam observed, “in working through how to relate to the community of Woodlawn, we learned a great deal about public health, building institutional community bases so that the people that you were working with and working under could have a say, a powerful say, like kicking us out or not. In other words, we’d have oversight by the community.”

In response to the concerns of Woodlawn community leaders about the life course trajectories of children on Chicago’s South Side, Kellam in 1966 initiated a population-based universal intervention study among all first grade boys and girls (1,242). The study followed their progress into adolescence, young adulthood, and midlife, and analyzed the reasons why some children matured into healthy, productive adults and others encountered serious mental, physical, and social problems. The study attempted to answer the critical question raised by the controversial 1965 Moynihan Report, which suggested that social pathology resulted from living in communities that lacked strong social norms, resources, and opportunities. In contrast, Kellam and his colleagues at the University of Chicago theorized that social pathology was embedded at an early age and was largely independent of factors such as crime and unemployment, and thus could be more effectively prevented in individuals. They coined the term developmental epidemiology to describe mapping the variation in developmental paths leading to health or disorders in defined populations. This approach applied the public health/Meyerian concept of the life course to mental health epidemiology. As individuals moved through various stages of life with corresponding social fields (their family of origin, the classroom, peer group, family of procreation, and...
workplace), they had to accomplish a series of social task demands. Failure in the early stages would interfere with this progression and predict failure in the later stages.

Like Lemkau before him, Kellam critiqued mental health in the 1960s as “bereft of a developmental approach.” His team worked closely with Woodlawn community leaders to develop and implement a developmental epidemiological prevention research strategy that precisely aimed interventions at early risk factors. The Woodlawn Study was among the first community studies to identify risk factors for negative health and behavioral outcomes in an urban minority population. For over four decades, Woodlawn’s findings on the etiology of problem behaviors have guided the development of many preventive interventions.

In 1983, just after arriving at Johns Hopkins, Kellam collaborated with Eaton, Jim Anthony, and biostatistician Hendricks Brown to submit an NIMH grant to launch a preventive intervention to identify early antecedents of long-term problem outcomes, modeled on the Woodlawn Study. In close partnership with the Baltimore City Public Schools, Kellam’s team at the Hopkins Prevention Research Center (PRC) began with a cohort of 2,311 first-graders in 1985 and 1986, chosen from the same three census areas in East Baltimore as the ECA. Kellam continued to use Alinsky’s community organizing principles, and worked extensively with parents to build a base of support for the intervention, which resulted in levels of participation at 90 percent or higher. When the Johns Hopkins IRB interacted with the Baltimore City School Board, the IRB members were used to focusing on the impact of research on individuals, not communities. The School Board members clashed with the IRB to some extent because Kellam had been so successful in ensuring that they maintained ownership of the study. The IRB wanted to require the study to obtain permission from each student’s family, and didn’t recognize “that somebody else in the community, namely the School board, already had permission and oversight and ownership and wasn’t about to allow anybody to use the data no matter what they wanted to do with it without the School board overseeing it.”

The Prevention Research Center was one of the first four such centers funded by NIMH after Congress mandated that the agency expand its efforts in prevention. After support from NIMH faded, NIDA became the main source of funding for research that examined the behavioral antecedents of violence, risky sex, substance abuse, and incarceration. NICHD also provided support for the child behavior and development aspects. The center would ultimately track three cohorts of children in large-scale epidemiological randomized field trials to test universal preventive interventions in first- and second-grade classrooms. The targeted outcomes included drug and alcohol abuse and dependence disorders, daily regular tobacco use, antisocial personality disorder, delinquency, and incarceration. The study also examined patterns in students’ use of school-based services as well as the centrally important outcome of school failure. All of these problem outcomes shared the early risk factor of aggressive, disruptive classroom behavior as early as first and second grades.

The study’s primary intervention was the “Good Behavior Game,” a classroom behavior management method for socializing children to their role of student while offering teachers a method for managing classroom behavior in a way that does not compete for instructional time. By young adulthood, Kellam’s team observed significant and meaningful reductions for all of the problem outcomes targeted by the intervention. Using randomized designs crafted with community and school support, the team examined not only main effects but the variation in impact on developmental paths and outcomes. Recognizing the vital need to bridge the traditional gap between public education and public health prevention research, Kellam moved to the American Institutes for Research (AIR), a non-profit research group known for its focus on school and education research. At AIR, he developed a new Center for
Integrating Education and Prevention Research in Schools, which provided a home for the third of the three generations of Baltimore prevention research. After a decade at AIR, Kellam returned to the Department of Mental Hygiene as Professor Emeritus.14

From 1995 to 2002, the Prevention Research Center was directed by Philip J. Leaf. Leaf was trained as a sociologist and came to Hopkins from the Yale Department of Epidemiology and Public Health, where he had directed the Center for Health Policy and Research and previously the Center for Mental Health Services Research at the Yale Psychiatric Institute. Yale had been a site in the Epidemiologic Catchment Area Study, and Leaf knew Shep Kellam and Ernie Gruenberg. Leaf and Eaton had both been students of David Mechanic in the PhD program at the University of Wisconsin-Madison, Leaf’s research had focused on prevalence rates of mental illness in institutional settings such as jails and nursing homes. Frustrated with the lack of continuity after grant-funded academic research studies ended, often with negative effects on community trust in universities, Leaf was motivated to find new ways for universities to launch “something that was useful and even if it didn’t stay exactly the same, continued to provide benefits to the clients of the programs.”

In 1991, Leaf interviewed for a faculty position at Hopkins in Mental Hygiene, but before he accepted the position, he arranged meetings with key community leaders in Baltimore such as City Councilman (and later State Senator) Nathaniel J. McFadden and community activist Lucille Gorham. He discussed his plans to expand community-based mental health services for children, especially those who were victims or witnesses of violence, and asked them whether they wanted him to come down to work with them. They agreed, based in part on the strength of existing relationships among the East Baltimore community, the Baltimore City schools and health department, and the Department of Mental Hygiene.

Leaf arrived just as the cocaine epidemic was cresting, and heroin remained a serious problem in Baltimore’s poorest inner city neighborhoods. By 1995, Baltimore City had lost 25 percent of its 1950 population and the homicide rate had peaked at 45 per 100,000 population. Within one of the nation’s most violent cities, East Baltimore had even higher rates of shootings. Fewer than ten schools in the entire city had at least 40 percent of students performing at grade level on standardized tests, and some schools posted only one or two children who scored at grade level. Although most children were covered by the public health insurance plan, which the School of Hygiene had helped to develop, few schools had even part-time mental health clinicians or counselors. Most importantly, few East Baltimore clinicians knew how to provide mental health services for children, and no existing organizations were dedicated to that purpose or even showed interest in reaching children or adolescents. Although Baltimore had changed dramatically since the 1960s when Paul Lemkau first initiated mental health programs in Baltimore City schools and conducted research on police involvement in psychiatric hospitalizations, Leaf would carry on Lemkau’s deep commitment to
Beginning in 1992, Leaf led a successful federal grant in collaboration with the Johns Hopkins Department of Psychiatry, Maryland Department of Health and Mental Hygiene, Baltimore City Health Department, and Baltimore City Public Schools to expand community-based mental health services for children in East Baltimore. The $15 million grant funded full-time mental health clinicians in the 18 East Baltimore schools, trained and hired community mental health workers, and created the East Baltimore Mental Health Partnership, which Leaf directed until 2000. For twenty years, the Partnership and the Johns Hopkins Community Mental Health Center expanded and strengthened the infrastructure of community mental health services for East Baltimore youth, eventually reaching more than 120 schools. In 2012, however, the Johns Hopkins Department of Psychiatry decided to end its contract to provide services in local schools, which are still provided by the University of Maryland, Catholic Charities, and local providers.

Leaf recalled that in the first 18 months that the Partnership was operating, three of the children it served were shot. Many more witnessed violence in their homes and neighborhoods, and were often related to the victims. "The police were enormously frustrated, because they would come on the scenes, see not just a traumatized individual but a traumatized family member, and then wonder what happened to those families." After the Baltimore Police responded to a hostage-taking incident in a housing project in East Baltimore that was directly across the street from an elementary school, Leaf orchestrated the response and conducted classroom discussions with the students about what they had seen. Not only were victims of violence at higher risk for developing psychiatric disorders, they were also more likely to become perpetrators themselves.

Acting on the realization that "getting shot and getting killed in Baltimore is a public health issue," Leaf has directed since 1996 the Child Development Community Policing Program, which trains teams of police officers, mental health clinicians, and community volunteers to help families and communities to recover from traumatic incidents of violence, and to prevent the cycle of violence and retribution from continuing. The keystone of the program is relationships with community leaders, who broker acceptance and trust of the team members from Johns Hopkins and the police department. The program responds to specific crises, but also conducts outreach in the schools, in homes, even in emergency rooms where victims of violence were "talking about who shot them and what somebody should go do to the people that shot them." Through counseling and conflict mediation, Leaf and his team members have chipped away at what had once been a solid wall of violence and its sequelae. They have generated new resources and strategies to respond to a wide variety of needs expressed by families and the community. Leaf was also involved in helping Baltimore City Public Schools secure major federal funding for its Safe Streets, Safe Schools, Safe Students program. Leaf elevated the mission of prevention in 2000 by establishing the Johns Hopkins Center for the Prevention of Youth Violence, one of the first such centers funded by the Centers for Disease Control and Prevention.

Leaf emphasized that Baltimore is "one of the few cities where we have a major university, a large city, all the city and state agencies, and the NIH" all within convenient driving distance of each other. Leaf's group has been meeting with the Maryland State Department of Education every Tuesday since 1993, which he called "an enormous opportunity for Johns Hopkins. We have the State Department of Health, the State Department of Juvenile Services, the State Health Commission, within three or four miles of Johns Hopkins, and now within three or four subway stops." Leaf is but one of many Mental Health faculty who work to facilitate collaborations between the city and the state, and among a wide variety of health, education,
social welfare, and community service agencies from the private and public sectors.

Of course, such rich, diverse longstanding partnerships also greatly facilitate research. As Leaf observed, “there’s also self-interest in this. So I and my colleagues have been able to get research grants to do randomized trials across multiple school systems, because we have these collaborations not just with Maryland State Department of Education, or not just with Baltimore City, but with lots of school systems.” By conducting carefully designed evaluations and documenting the effectiveness of community mental health interventions, the Department of Mental Health has been able to provide crucial evidence to convince policymakers to expand successful programs to reach more people. The Department has also built a strong doctoral training program focusing on the delivery, organization and financing of mental health services for children. Doctoral students are able to draw from the research databases of the Center on Organization and Financing of Care for the Severely Mentally Ill and also to collaborate with the Economics of Mental Health program in the Department of Health Policy and Management.15

The Prevention Research Center was renamed the Center for Prevention and Early Intervention in 2004, when Nicholas Ialongo was named director and Leaf stayed on as co-director. The Good Behavior Game remains the cornerstone of the Center’s work to bridge the traditional gap in prevention research between public education and public health, and Ialongo has broadened and deepened the intervention’s scope to more fully explore the extent to which aggressive and disruptive behavior in early elementary-school children is predictive of a wide range of problems later in adolescence and adulthood, as well as whether these problems can be prevented by early intervention. Ialongo’s work has examined the trajectory of not only aggressive behavior but also other behavioral issues, such as using first graders’ self-reports of anxious symptoms to predict their adaptive functioning and anxious symptoms in fifth grade. Over the next decade, the Department plans to disseminate the Good Behavior Game and other scientifically proven classroom-based interventions to schools around the country.

A new generation of Mental Health faculty is applying the prevention research and classroom intervention model to new contexts such as preventing bullying in schools and conducting mindfulness training to help adolescents cultivate the ability to regulate emotions effectively and enhance capacities for calm, sustained attention. Catherine Bradshaw, who is deputy director of the Center for the Prevention of Youth Violence and co-directs the Center for Prevention and Early Intervention, studies the effects of school climate on bullying; the development of aggressive and problem behaviors; and the effects of exposure to violence, peer victimization, and environmental stress on children. She is a nationally recognized expert on cyber-bullying, and her research has shown that in middle school, 25 percent of girls and 11 percent of boys have been cyber-bullied via cell phones or computers at least once.

Based on a promising pilot study, Tamar Mendelson is systematically evaluating mindfulness training and yoga programs in urban school contexts and measuring their effectiveness in improving students’ overall behavior and ability to concentrate. The intervention is designed to prevent mental and behavioral disorders in adolescents, especially those at high risk for school failure.16

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2 Grob, “Deinstitutionalization,” 49.

Shonick, Government and Health Services, 187-90; Oliver Sacks, “Asylum,” foreword to Christopher Payne, Asylum: Inside the Closed World of State Mental Hospitals (MIT Press, 2009), 5.


Philip Leaf interview Mar. 8, 2013.

6. The Department of Mental Health in the 21st Century

After Wallace Mandell had served as interim chair from 1993 to 1997, John C. S. Breitner was appointed the Department’s fourth chair. Breitner’s research dealt with aging, dementia, and cognitive decline, particularly epigenetic conditions such as Alzheimer’s disease in which environmental factors influenced genetic expression. Breitner was well acquainted with mental health at Hopkins and in East Baltimore, since he had completed a two-year postdoctoral fellowship in the Department of Mental Hygiene in 1979 and had been on the Psychiatry faculty at Johns Hopkins from 1977 to 1984. In a variety of roles, Breitner led in providing mental health services to East Baltimore residents, serving as psychiatrist-in-chief and director of the Mental Health Service of the East Baltimore Medical Plan, medical director of the Baltimore City Hospitals Community Psychiatry Program, director of the East Baltimore Psychogeriatric Needs Assessment Project, and staff psychiatrist at the Johns Hopkins Hospital Dementia Research Clinic. Breitner left in 1984 to hold positions at the Mount Sinai School of Medicine and the Duke University Medical Center before returning to Baltimore in 1997.

As P.I. for a National Institute on Aging grant from 1994 to 2001, Breitner conducted a prospective study of incipient dementia among 1,357 men and 1,889 women in Cache County, Utah. The researchers investigated multiple aspects of the epidemiology of dementia, including the prevalence of neuropsychiatric symptoms and the preventive effectiveness of therapy with anti-inflammatory drugs, statins, anti-oxidants, and vitamin E. The study determined that vascular factors predict the rate of progression in Alzheimer disease. Another major finding was that hormone replacement therapy reduced or eliminated the sex-specific risk of developing Alzheimer disease, and that the risk disappeared entirely with more than ten years of treatment. Breitner was assisted on the study by Peter P. Zandi and Michelle C. Carlson, Mental Health faculty who specialize in the mental health aspects of aging.

Along with Breitner, psychiatrist George Rebock led in developing research and training programs on the mental health aspects of aging. Rebock had begun his graduate research on aging in 1973, the year before the National Institute on Aging (NIA) was established. He applied a lifespan approach to developmental psychiatry, and during his postdoctoral fellowship in Psychiatry at Hopkins he began to emphasize prevention while studying the effects of dementia on older drivers. In 1989, Rebock joined the Mental Hygiene faculty in the Center for Prevention Research, and recalled that during his job talk, “I kind of proudly announced that I had like 120 people in my dissertation,” which elicited giggles from an audience used to dealing with thousands of people in population-based studies. As the subjects of the Epidemiologic Catchment Area and other large longitudinal studies grew older, public health researchers grew more interested in aging issues. Rebock’s arrival at Hopkins also coincided with increased public attention to the social and economic implications of an aging society, championed in Congress by Representative Claude D. Pepper. An indicator of the tremendous growth of the field of aging within mental health research is the expansion of the Cognitive Aging Conference, which began with about 50 attendees in 1987 and reached 800 in 2012.1

When Rebock joined the Department in 1989, there were no community-based interventions being conducted with adults. Since 1996, Rebock has been the PI at Johns Hopkins, one of six sites in the Advanced Cognitive Training for Independent and Vital Elderly (ACTIVE) study, the largest cognitive intervention among the elderly in the United States. The intervention, funded by NIA, focuses on improving cognitive ability and preventing cognitive decline among a cohort of about 3,000 subjects originally, with
approximately 40 percent still being followed. By slowing or halting the loss of daily functioning, the goal of the intervention is to “keep people independent, and keep them out of nursing homes. If we can improve things like people’s memory ability, or their reasoning ability, or how quickly they process information, then you could improve their daily lives in areas such as managing their medication, or managing their finances, or being able to use transportation better, or to prepare meals. All of the activities that keep us functioning independently in society.” Even after the active part of the intervention to improve memory concluded, follow-up studies have shown that the positive effects persist for years afterward.

The ACTIVE study helped the Department to think more broadly about Kellam’s concept of developmental epidemiology, which addresses risk and protective factors and how they vary in defined populations over time. Rebok thinks about risk factors dynamically, how they change over the lifespan. “What’s a risk factor at one period of life can become a protective factor at another period of life, and vice versa. I’m really trying to live up to the label of being a lifespan researcher, and think in terms of the long reach of childhood events into middle and later life, and the importance of really starting interventions early. And at the same time realizing that it’s never too late to start interventions, either.” This has been the basis for Rebok’s lifecourse intervention, Experience Corps, which trains older volunteers over 60 years old to volunteer in K-3 classrooms. Linda Fried, director of the Johns Hopkins Center on Aging and Health, developed the idea with Mark Friedman to address the problems of patients who presented in clinic reporting that they felt listless, useless, and depressed.

The Experience Corps emphasizes the value of older adults as a resource, and with NIA funding since 2006, the Baltimore City Public Schools have placed over 700 volunteers in over 20 schools. The volunteers become more physically and socially active through their interactions with children, teachers, and other volunteers. This stimulation is also beneficial for their cognitive ability, and Michelle Carlson has demonstrated increased brain activity by comparing volunteers’ MRIs at the beginning versus the end of the school year. The presence of Experience Corps volunteers in classrooms has, in turn, proved highly beneficial for students, with improved learning and behavior outcomes as measured by test scores, vocabulary, and decreased disciplinary referrals. Teachers and principals agree that Experience Corps volunteers have had a positive impact on their schools’ atmosphere and culture. Although Baltimore was one of the earliest Experience Corps sites with the most clinical research conducted to date, the Experience Corps model has been successfully generalized in 20 cities nationwide. Together, the ACTIVE Study and Experience Corps have established the Department’s extensive evidence base for cognitive health interventions, and Rebok is currently extending his research to conduct a dementia prevention study among displaced populations in Australia. He co-teaches a course on Mental Health in Later Life with Joseph Gallo, who worked with Rebok on the ACTIVE study. Since 2007, Rebok has also been co-P.I. on an NIA training grant with Marilyn Albert in Neurology for the postdoctoral training program in aging and dementia.2

After Breitner left Hopkins in 2001, Bill Eaton served as interim chair until 2004, when he was appointed chair. The Department had always been small with a half dozen or so faculty, and a departmental self-study in 2003 recommended that Mental Hygiene should double the number of faculty and expand in the areas of mental health services research and cognitive health and aging. Under Eaton’s chairmanship from 2004 to 2013, the Department rebuilt its master’s program to an enrollment of 15 to 20 students, and expanded the faculty to 19 full-time positions.3 Currently, the Department hosts over 80 students and fellows in degree programs for the M.H.S., PhD, DrPH, and postdoctoral training. Specialized training programs include Psychiatric Epidemiology, Children’s Mental Health Services, Drug Dependence, and Aging and Dementia.

In 2004, the Department embraced its new identity by changing its name from Mental
Hygiene to Mental Health. The School had dropped “hygiene” from its historic name to become the Bloomberg School of Public Health in 2001, and Mental Hygiene was the last vestige of the old nomenclature. As Kellam remembered, “there was a general atmosphere in public health that [hygiene] was sissy stuff. I used to joke about it; we’d have the orientation, you know, for the new students—the chairs would go up and we’d make jokes about mental floss. That’s what mental hygiene was, you know.”

As a mental health epidemiologist, Eaton’s work has focused on explaining the risk factors, natural history, and consequences of major mental disorders, particularly schizophrenia. To study schizophrenia and more common mental disorders like depression and anxiety, he has used data from from the Baltimore cohort from the ECA study and psychiatric case registers in several locations around the world. Like David Celentano in the Department of Epidemiology, Eaton is the first chair of Mental Health to hold a PhD rather than an MD, and his training in sociology frames his approach to understanding the occurrence of what he terms “the subset of bizarre behaviors that generally are labeled as psychiatric disorders.” In the early 1990s, Eaton began analyzing data on schizophrenia from the system of registers in Denmark, whose rich data sets made it the “best place to study schizophrenia, from an epidemiologic point of view.” By the 2000s, Eaton’s research had evolved to point to the relationship of autoimmune diseases to risk for schizophrenia. Autism and schizophrenia have traditionally been considered separate disorders, but new research is pointing to common factors, including increased risk among patients with autoimmune diseases, especially celiac disease and sensitivity to wheat. Eaton has extensively explored these and other important risk factors for schizophrenia and other psychoses. But Eaton recognizes that “these theories are big, black boxes. They don’t really know what’s going on because the immune system is so complicated. The most complicated organ on the planet is the human brain. The next, most complicated: human immune system. So you put the two of them together, you’re out in infinity.”

One of Eaton’s school-wide contributions has been the two-quarter series in measurement that he created with biostatistician Karen Bandeen-Roche in 1992. The joint course teaches assessment techniques for human subjects research, drawn from diverse fields including psychometrics, sociology, and epidemiology. Few other courses on measurement, so crucial to public health research, draw from such a broad range of disciplines. Students learn how to establish different thresholds along a continuum that defines a disease, such as hypertension, a blood titer, an impairment, a disability, or a cluster of symptoms. Mental health professionals confront the issue of how to quantify and categorize disease much more than general epidemiologists and physicians do, but the principles are the same for any type of...
disorder or condition. Eaton notes that "rheumatoid arthritis looks just like a psychiatric disorder." In rheumatoid arthritis, "you have to have a certain number of swollen joints. They have to be symmetric," and psychiatric diagnosis likewise classifies disease based on how many symptoms in a cluster are present. "The advantage of public health is that we can actually statistically evaluate the qualities of the diagnosis in various, different ways. You need epidemiology to do that because you need a population-based sample to do it."^6

Eaton and Anthony’s course in psychiatric epidemiology helps students understand co-morbidity, expressed as multiple variables. Since psychiatric illnesses frequently occur together, mental health epidemiologists are ahead of the curve in understanding and treating co-morbidity. As Eaton observes, mental illnesses present the opportunity for primary prevention of secondary disorders, for example when depression is linked with anxiety, or vice versa, treating the depression also prevents the secondary disorder. "Now we think if you treat depressive disorder, you’ll prevent strokes, and heart attacks, and diabetes. The epidemiologic evidence is very suggestive, but people haven’t proven it yet.” Indeed, the Department’s current research focuses on how patients actually use medications with the goal of promoting adherence to prescription guidelines.^7

In 1991, when Eaton served on the Institute of Medicine Committee on Prevention of Mental Disorders, the committee’s review of prevention efforts to date identified only approximately a dozen proven methods of preventing mental illness. In the past two decades, there has been such progress on prevention research that approximately sixty mental disorders are now regarded as preventable by intervention. Many disorders, such as those caused by nutritional deficiencies, infections, or head trauma, are generally disappearing in the Western industrialized countries, but are still common in the developing world. Mandell noted, “once we figured out how to prevent the disorder, it no longer is considered a mental illness or in the purview of psychiatry. Psychiatry is not involved with prevention.” Unlike when Mandell began his career in the 1950s, today, “mental health is accepted as part of public health—both the service delivery part and the prevention part. And particularly, as the mental or psychiatric institutions have disappeared from the landscape, it becomes even more important that there be a public health service system to help mentally ill drug abusers and alcoholic individuals in the community. And that’s the current challenge that we are facing.”^8

Today, the Department continues to build on its historic strengths in three areas: 1) population-based approaches to preventing and treating substance abuse disorders; 2) psychiatric epidemiology and statistical methods, with applications for evaluating and strengthening mental health systems, and 3) the causes and prevention of developmental and behavioral disorders from infancy through adolescence. Since 2000, new research and teaching programs have developed in the areas of cognitive health and aging; youth violence; socioeconomic stratification and mental disorders; psychiatric and behavioral genetics; and global mental health. The Department hosts four centers:

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<tr>
<th>Founded</th>
<th>Name</th>
<th>Director</th>
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<tr>
<td>1983</td>
<td>Center for Prevention and Early Intervention</td>
<td>Nicholas Ialongo</td>
</tr>
<tr>
<td>2000</td>
<td>Center for Prevention of Youth Violence</td>
<td>Phil Leaf</td>
</tr>
<tr>
<td>2006</td>
<td>Center for Mental Health Initiatives</td>
<td>William Eaton</td>
</tr>
<tr>
<td>2012</td>
<td>Moore Center for the Prevention of Child Sexual Abuse</td>
<td>Elizabeth Letourneau</td>
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<tr>
<td>2013</td>
<td>Wendy Klag Center for Autism and Developmental Disabilities</td>
<td>Daniele Fallin</td>
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Mental Health faculty are also actively involved in three university-wide centers based in the Bloomberg School including the Center on Aging and Health and the Urban Health Institute.
In just over a decade, the Department of Mental Health has successfully increased private support for its key programs. More than 50 donors (including private foundations) have generously given over $11 million to establish and advance critical research and training in public mental health.

Mental Health faculty continue to make major contributions to analyzing population-level changes in mental health. The Department’s well-established body of research on the use of psychoactive medications, treatment-seeking for psychiatric disorders (including the effects of social stigma), and comorbidity of mental and physical disorders will serve as the basis for evaluating the 2010 Affordable Care Act’s effectiveness in improving overall health and mental health care for individuals with mental and behavioral disorders. Faculty will use simulation and forecasting techniques to predict the long-term population-level impact of policies on access to care, service utilization and treatment outcomes. To provide a stronger, permanent base for these activities, the Department hopes to establish a Center for Psychiatric Epidemiology, which will distill new insights from existing national datasets that currently sit underutilized. In collaboration with the School’s other departments, Mental Health students and faculty at the center will design studies and answer important questions regarding the future development of mental health care in the U.S.

Going forward, the Department will apply its rich, unique expertise to bring public health knowledge and methods to bear on the most complex mental health issues facing societies throughout the world, such as child sexual abuse and autism. In 2012, Mental Health established the Moore Center for the Prevention of Child Sexual Abuse, the first academic research center of its kind. The Moore Center will promote a public health approach to preventing child sexual abuse through research, policy analysis and education. “Our overarching goal,” founding director Elizabeth Letourneau stated, “is to move our nation’s response to child sexual abuse from a criminal justice orientation, focused on after-the-fact responses, to a more comprehensive approach that focuses significant resources on the prevention of child sexual abuse.”

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Funding</th>
<th>Title</th>
<th>Year</th>
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<tbody>
<tr>
<td>Professorships and Faculty Recruitment</td>
<td>$3.62M</td>
<td>Sylvia and Harold Halpert Professorship</td>
<td>2005</td>
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<td></td>
<td></td>
<td>Child Sexual Abuse Recruitment</td>
<td>2010</td>
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<td></td>
<td></td>
<td>Dr. Ali and Rose Kawi Professorship</td>
<td>2011</td>
</tr>
<tr>
<td>Scholarships</td>
<td>$204K</td>
<td>Paul V. Lemkau Scholarship Fund</td>
<td>2002</td>
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<td></td>
<td></td>
<td>Lucy Shum Memorial Scholarship</td>
<td>2010</td>
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<tr>
<td>Establish Centers</td>
<td>$7.5M</td>
<td>Center for Mental Health Initiatives</td>
<td>2006</td>
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<td></td>
<td></td>
<td>Moore Family Center for Prevention of Child Sexual Abuse</td>
<td>2012</td>
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<tr>
<td>General Use</td>
<td>$30K</td>
<td>Morton Kramer Fund</td>
<td>2002</td>
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<td></td>
<td></td>
<td>Annual Giving Fund</td>
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Autism is another important emerging public health problem that will demand increasing mental health expertise reinforced by the unique perspective of public health. By developing sensitive screening instruments for detecting developmental and intellectual disabilities and by conducting research to guide and support caregivers of autistic individuals, the Department of Mental Health can make major contributions toward solving the puzzle of autism and related conditions.

M. Daniele Fallin, who succeeded Bill Eaton as chair on July 15, 2013, is a genetic epidemiologist who focuses on neuropsychiatric disorders including autism, Alzheimer's disease, schizophrenia, and bipolar disorder. She also studies the genetic predisposition to features affecting aging populations such as muscle strength and frailty. Fallin comes to Mental Health from the Department of Epidemiology, where she directed the Center for Autism and Developmental Disabilities Epidemiology (renamed and expanded in 2013 as the Wendy Klag Center for Autism and Developmental Disabilities).

In January 2013, Fallin and co-investigator David Valle, who directs the McKusick-Nathans Institute of Genetic Medicine in the School of Medicine, received a $2.5 million grant from the Burroughs Wellcome Fund to support the Maryland Genetics, Epidemiology and Medicine program (MdGEM). The program, jointly administered by the Bloomberg School and the School of Medicine, will allow researchers to cross-train genetic epidemiologists and human geneticists simultaneously, increasing collaboration and furthering the missions of both fields.

Fallin finds a natural home in the Department of Mental Health, whose faculty have facilitated major advances in the complex and rapidly developing scientific arena of statistical methods in psychiatric and behavioral genetics. Innovative new studies propose to expand the understanding of the genetic basis of dementia, bipolar disorder, substance use disorders, and other mental and behavioral disorders. Brion Maher is applying statistical genetics to study genetic and environmental contributions to both psychiatric and substance use disorders. Maher is associated with the Obsessive-Compulsive Disorder Family Study in the Johns Hopkins Department of Psychiatry, and with the Molecular Genetics of Schizophrenia Collaboration, a multi-site international group funded by the NIMH Schizophrenia Genetics Initiative. He has used techniques such as genome-wide association scans to locate the specific chromosome regions associated with heightened risk for mental disorders. Peter P. Zandi, who directs the Psychiatric Epidemiology training program, is leading the Department's foray into the new field of pharmacogenetics, which facilitates individualized prescription and treatment (“personalized medicine” or “in-health”).

Global Mental Health

The Johns Hopkins School of Public Health has been committed to promoting public mental health internationally ever since William Henry Welch helped Clifford Beers to organize the International Committee for Mental Hygiene in 1919. The ICMH was reorganized in 1930 at the International Congress of Mental Hygiene, where Welch served as vice president. At the Third International Congress of Mental Hygiene in London in 1948, the ICMH was transformed into the World Federation for Mental Health. Psychiatrists conceived the WFMH both as an advocacy agency for world peace and a bridging organization between the United Nations and the world's voluntary mental health associations.

At the First World Health Assembly in 1948, Morton Kramer was the only mental health specialist among the U.S. Delegation. The first director-general of WHO was the Canadian psychiatrist G. Brock Chisholm, with whom Kramer helped to found the WHO Expert Committee on Mental Health. The committee's first report declared that "the most important single long-term principle for the future work of WHO in the fostering of mental health” was to ensure that international public health programs upheld “the responsibility for promoting the mental as well as the physical health of the community.” In 1950, mental health was among
six major global initiatives launched by WHO, and mental health garnered just under $1 million—almost one-fifth of the organization’s total budget.12

Kramer conducted foundational studies on international variation in mental hospitals’ first admission rates. He played leading roles in the U.S.-U.K. cross-national studies on psychiatric diagnosis, the International Pilot Study of Schizophrenia, and the still-evolving refinements in psychiatric diagnostic methods and the international classifications of diseases. Kramer’s disciplined approach to psychiatric problems is apparent in the international discussions of psychiatric epidemiologists over a half century, published in the Milbank Memorial Fund collections and the proceedings of the World Psychiatric Association’s Section on Epidemiology and Social Psychiatry. Kramer’s colleagues Jim Anthony and Bill Eaton credit him for his “vision that psychiatric diagnosis might be made sufficiently reliable and valid to warrant biostatistical scrutiny and to yield an epidemiology of specific psychiatric disorders.”13

Alongside Kramer, Paul Lemkau and Robert Felix served on the WHO Expert Committee on Mental Health shortly after its creation until the late 1970s. As a WHO consultant, Lemkau conducted surveys of mental health in Japan, Yugoslavia, and Italy, as well as Venezuela, Mexico, and other Latin American countries. Lemkau’s studies of psychiatric epidemiology in Yugoslavia remain classics in the field, and in 1969, he chaired the World Mental Health Assembly in Washington, DC.14

Today, Johns Hopkins remains the only school of public health in the world with a department of mental health, which hosts one of the largest groups of students and faculty devoted to global mental health. The global mental health unit is headed by Health faculty member Paul Bolton. Bass, an advisee of Bill Eaton, works to design and evaluate methods for assessing mental health and mental illness in non-Western cultures, and uses them to investigate the effectiveness of innovative prevention and intervention strategies. Her past experience in addressing the mental health needs of disaster victims and refugees has taken her from the North Carolina coast to the villages of Northern Uganda. Her current projects include evaluating mental health interventions for populations affected by torture and trauma; and assessing perinatal depression among HIV-infected women in Brazil.15

In 2012, the Department celebrated its 50th anniversary and published the reference and text, Public Mental Health (Oxford University Press). Public mental health is enjoying a groundswell, such as the 2007 Lancet article series that asserted there is “No Health without Mental Health” and the World Health Organization’s release in 2009 of its mental health Global Action Plan (mhGAP) to recognize the global burden of mental disorders and the need for a comprehensive, coordinated response from the world’s governments.

Mental Health faculty have demonstrated national and international leadership in designing and implementing cost-effective mental health interventions for low-resource settings, especially among vulnerable populations recently subjected to war, genocide or natural disaster. In the developing world, an estimated 35 percent of women have been raped, and depression is rampant. Equipping public and mental health professionals in these countries with the tools to more efficiently deliver mental health interventions would have an enormous effect size, since proven methods of prevention and treatment already exist for the most common mental health conditions, and these methods are even more effective in low-resource settings.16

With a new chair, a vibrant research agenda, and three highly regarded NIH-funded training programs (with one in global mental health under review), the Department is ready to enter its second half-century of leadership in public mental health.
2 Ibid.
4 Kellam interview.
7 Ibid.
9 Mandell interview.
10 P.P. Zandi PP and J.T. Judy, “The promise and reality of pharmacogenetics in psychiatry,” 
14 Lemkau bio file.
15 Judith K. Bass JHSPH website faculty profile.
Oral History Interviews

Conducted by Karen Kruse Thomas:

David Celentano, August 9, 2011
Carolyn L. Gorman, August 21, 2012
Sheppard G. Kellam, August 22, 2012
Philip J. Leaf, March 8, 2013
Wallace Mandell, August 29, 2012
George W. Rebok, March 13, 2013
Elizabeth Ann Skinner, March 14, 2012

Conducted by Eli A. Rubenstein for the National Institute of Mental Health Oral History Project, National Library of Medicine:

Robert H. Felix, May 27, 1975
Alan D. Miller, June 21, 1976; Nov. 5, 1977
Stanley F. Yolles, April 21, 1975; May 1, 1975; Aug. 23, 1975; April 21, 1975; May 1, 1975; Aug. 23, 1975
Selected Honors and Awards

Alcohol, Drug Abuse and Mental Health Administration
1980 William W. Eaton, *Administrator’s Award for Meritorious Performance*

American Psychiatric Association
1969 Paul V. Lemkau, vice-president

American Psychopathological Association
1968 Benjamin Pasamanick, president
2004 William W. Eaton, president

American Public Health Association Mental Health, Epidemiology, and Statistics Sections, *Rema Lapouse Award* for lifetime contributions to public health and prevention science
1973 Morton Kramer
1974 Paul V. Lemkau
1976 Ernest M. Gruenberg
1988 Alan D. Miller
1996 Sheppard G. Kellam
2000 William W. Eaton

National Institute on Drug Abuse
2008 Sheppard G. Kellam, *Director’s Special Award*

Presidential Early Career Award for Scientists and Engineers
2005 C. Debra M. Furr-Holden (NIAAA)
2010 Catherine P. Bradshaw (U.S. Department of Education)

Society for Prevention Research
1998-2001 Sheppard G. Kellam, president
2008 Sheppard G. Kellam, *Presidential Award*
2010 Catherine P. Bradshaw, *Early Career Award*

Strömgren Foundation
2005 William W. Eaton, *Erik Strömgren Medal*

World Federation for Mental Health
1999 Sheppard G. Kellam, *Distinguished Public Mental Health Award*
1940s


1950s


1960s


1970s


1980s


1990s


2000s


Special issue of *Drug and Alcohol Dependence* 95 (Suppl. 1, 2008).


**2010s**


W.W. Eaton and the Faculty, Students, and Fellows of the Department of Mental Health, Bloomberg School of Public Health (2012). *Public Mental Health*. Oxford University Press.


