

# DEPARTMENT OF MENTAL HEALTH

## About

The Department of Mental Health (<https://publichealth.jhu.edu/departments/mental-health/>) is the only department-level unit in a school of public health in the U.S. that focuses on mental health. The mission of the Department is to advance the understanding of mental and behavioral disorders; to develop, implement, and evaluate methods to prevent and control these disorders; to promote mental health in populations around the world; and to educate the next generation of public health professionals that will promote this mission.

The Department brings together leading researchers across multiple disciplines joined by their dedication to understanding, preventing, and addressing mental health and substance use disorders. Faculty have expertise in a range of areas, including global mental health, mental health and aging, workplace mental, prevention science, psychiatric and substance use epidemiology, psychiatric and behavioral genetics, childhood adversity, autism and developmental disabilities, violence prevention, and more.

The department is led by the Department Chair, Pamela Collins, MD, MPH. Under the chair is a Vice Chair for Diversity, Equity and Inclusion (Dr. Renee Johnson), a Vice Chair of Research and Faculty (Dr. Rashelle Musci), and a Vice Chair of Education (Dr. Judy Bass).

The Master of Health Science (MHS) degree program is directed by Jeanine Parisi, PhD MA and co-directed by Lindsey Webb, PhD MHS and the PhD program is directed by Sarah Murray, PhD, MSPH.

## Programs

- Mental Health, MHS (<https://e-catalogue.jhu.edu/public-health/departments/mental-health/mental-health-mhs/>)
- Mental Health, PhD (<https://e-catalogue.jhu.edu/public-health/departments/mental-health/mental-health-phd/>)
- Non-Degree Training (<https://e-catalogue.jhu.edu/public-health/departments/mental-health/non-degree-training/>)

## Summer Institute

The **Summer Institute in Mental Health Research** offers:

- A variety of mental health-related courses
- Asynchronous online and synchronous virtual course offerings
- The option of taking courses for either credit or non-credit
- A certificate of completion for all courses taken upon request for non-credit
- Tuition remission for JHU faculty and staff

The Institute focuses on methodological and substantive topics in mental health and substance-use. It is intended for working professionals or students who are interested in developing expertise in the epidemiology of mental health and substance use disorders, the implementation and evaluation of mental health services and interventions, and/or the methodological issues encountered in mental health research in

the population. Our experts are training the next generation of public health leaders and leading the way in mental health research. For more details, please visit our summer institute courses page (<https://publichealth.jhu.edu/academics/summer-institute-in-mental-health-research/summer-institute-in-mental-health-research-courses/>).

## Academic Research Topics

The Department emphasizes ongoing research that enriches and stimulates the teaching programs. All students and fellows are encouraged to participate in at least one research group of a major research program such as those listed below.

### Psychiatric Epidemiology

Primary Faculty Contact: Dr. Heather Volk, [hvolk1@jhu.edu](mailto:hvolk1@jhu.edu)

Mental and behavioral disorders impose a significant burden on public health and are among the leading causes of disability worldwide. Faculty use the tools of epidemiology and biostatistics to understand the occurrence and distribution of mental and behavioral disorders across people, space, and time, and to investigate the causes and consequences of these disorders in order to develop more effective intervention strategies to treat and prevent them and to promote mental health. Faculty are involved in a range of population-based studies of mental and behavioral disorders that span the life course from in utero to the elderly, typically with studies that are prospective and developmentally oriented

### Substance Use

Primary Faculty Contacts: Dr. Renee Johnson, [rjohnson@jhu.edu](mailto:rjohnson@jhu.edu); Dr. Brion Maher, [brion@jhu.edu](mailto:brion@jhu.edu)

Substance use and substance use disorders (SUDs) are leading contributors to death, injury, disease, and psychosocial problems in the US and around the world. We have a large number of courses on the topic, paired with opportunities to conduct supervised research. Faculty conduct research in all of the major drugs used, including tobacco/nicotine, cannabis, alcohol, cocaine, opioids, and other prescription and illicit drugs. Our faculty's research uses a life course framework and social-ecological perspective to understand the determinants of substance use, with a focus on investigating opportunities to use drugs, initiation and escalation in use, prevention, services, and policy. Additional research focuses on the consequences of drug use, including overdose, comorbid psychiatric disorders, and infectious disease, e.g., HIV and Hepatitis C. The Department is the site of several National Institute on Drug Abuse (NIDA) funded studies, as well as a NIDA-funded research training program for pre- and post-doctoral students.

### Cognitive Health and Aging

Primary faculty contact: Dr. Michelle Carlson, [mcarlso2@jhu.edu](mailto:mcarlso2@jhu.edu) ([mcarlso2@jhu.edu](mailto:mcarlso2@jhu.edu))

The Department offers advanced training in epidemiologic study of the determinants of cognitive health and cognitive decline in older adults. Department faculty have affiliations with the Johns Hopkins Center on Aging and Health, the Johns Hopkins Center for Innovative Care in Aging, the Johns Hopkins Alzheimer's Disease Resource Center for Minority Aging Research, the Hopkins Economics of Alzheimer's Disease and Services Center, the Alzheimer's Disease Research Center, and direct several NIA-funded projects as well as the Aging and Dementia Training Fellowship, all of which seek to find the role of genes and the environment in the cause of Alzheimer's disease, to identify specific environmental factors that may modify genetic influences, and to test interventions aimed at delaying or preventing the occurrence of cognitive

decline and dementia. The training includes course offerings in the Departments of Mental Health, Epidemiology, Biostatistics, Health Policy and Management, and the Department of Psychiatry and Behavioral Sciences of the School of Medicine. Students are invited to attend monthly Work-in-Progress (WiP) meetings as a forum for discussion and development of research papers, dissertations, and grant proposals.

## Global Mental Health

Primary faculty contacts: Dr. Judy Bass, [jbass1@jhu.edu](mailto:jbass1@jhu.edu); Dr. Sarah Murray, [Sarah.murray@jhu.edu](mailto:Sarah.murray@jhu.edu)

Populations living in contexts of broad adversity, such as conflict, endemic poverty, HIV, and natural disasters, face impediments not just in infrastructure development but also in human development. Establishing a physically and mentally healthy populace is a necessary component for promoting development, securing the right to health, and promoting health equity in contexts and countries with limited resources. As publicized in the 'Global Burden of Disease' reports, common mental illnesses constitute the major cause of dysfunction globally and specifically in most resource-poor countries. Addressing these problems requires a multifaceted treatment and prevention approach that also considers fundamental social determinants of poor mental health, including stigma, violence, the relationship between physical and mental well-being, and poverty. Faculty in the Department of Mental Health and throughout the School of Public Health are pioneers in conducting applied research to understand cross-contextual variations in the manifestation of mental disorders and to investigate and innovate in the area of prevention and intervention programming for vulnerable populations living in areas with limited mental health resources. The Department houses a NIMH-funded training program for pre- and postdoctoral training in Global Mental Health.

## Psychiatric Genomics

Primary faculty contact: Dr. Brion Maher, [brion@jhu.edu](mailto:brion@jhu.edu) ([brion@jhu.edu](mailto:brion@jhu.edu))

Evidence clearly shows that genetic factors play an important role in the etiology of major mental and behavioral health disturbances and in responses to treatment for these disturbances. Faculty in the department are leaders in research to identify genetic factors related to neuropsychiatric outcomes and explaining how they interact with the physical and social environment to increase (or decrease) the risk for these outcomes. The goal of this research is to understand mechanisms of risk, and to establish better predictive models of who is at risk for illness. Both purposes can inform the development of more rational treatment and preventative strategies. Faculty collaborate with investigators from around the school, including the Department of Epidemiology and the Department of Biostatistics in the School of Public Health; the Department of Psychiatry and Behavioral Sciences and the Institute of Genetic Medicine in the School of Medicine; and the Kennedy Krieger Institute. They are engaged in population and family-based studies of a wide range of psychiatric disorders and related phenotypes including: Major Depression, Bipolar Disorder, Alzheimer's Disease, Schizophrenia, Autism and other neurodevelopmental disorders, Obsessive-Compulsive Disorder, Substance Abuse and Dependence, and Suicide. Genetic epidemiologic measurement tools employed include genome wide arrays and sequencing for genetics, epigenetics and transcriptomics. There are a number of outstanding didactic and practical training opportunities for students interested in psychiatric and behavioral genetic epidemiology. Students may pursue advanced coursework in genetic epidemiology, behavioral genetics, statistical genetics, and bioinformatics. They may also gain practical research

experience by collaborating on different projects led by the departmental and affiliated faculty around the school.

## Prevention Science

Primary faculty contacts: Dr. Rashelle Musci, [rmusci@jhu.edu](mailto:rmusci@jhu.edu); Dr. Holly Wilcox, [hwilcox1@jhmi.edu](mailto:hwilcox1@jhmi.edu); Dr. Tamar Mendelson, [tmendel1@jhu.edu](mailto:tmendel1@jhu.edu)

Several faculty work in the area of prevention science. The Department was the home to the former Center for Prevention and Early Intervention, a collaborative effort between the Bloomberg School of Public Health and community partners in prevention and early intervention such as the Baltimore City Public Schools System, the Family League of Baltimore City, Baltimore Mental Health Systems and the Maryland Department of Education, and prevention and early intervention researchers at Morgan State University, Pennsylvania State University, the University of California at Los Angeles, the University of Alabama, Columbia University, and Stanford University. The goals of that center included improvement of school-based preventive and early treatment interventions for children and adolescents, identification of factors that inhibit or facilitate prevention and treatment practices, and dissemination of best practices. The Center for Prevention and Early Intervention builds on the foundation laid by the Johns Hopkins Prevention Intervention Research Center (1985-2001), which provided the basis for two generations of school-based, preventive intervention field trials in Baltimore and their ongoing follow-ups. These general goals are still the focus of many ongoing studies by prevention faculty in our department. In addition, prevention scientists in the department also work in the health care sector, and on prevention of specific outcomes such as child sexual abuse and suicide.

## Epidemiologic Catchment Area-East Baltimore (ECA)

Primary faculty contact: Dr. Adam Spira, [aspira@jhu.edu](mailto:aspira@jhu.edu) ([aspira@jhu.edu](mailto:aspira@jhu.edu))

The Baltimore Epidemiologic Catchment Area (ECA) Research project started out as one of five sites around the country in the early 1980s. The Baltimore site was led by Morton Kramer, with collaborators from the Department of Health Policy and Management and from the Department of Psychiatry. The Baltimore site was the only one of the five to conduct follow-ups during 1993-1996 and then in 2004-2005. The Baltimore ECA follow-up involves investigators from the Departments of Epidemiology, Biostatistics, and Health Policy and Management in the Bloomberg School of Public Health and with investigators from the Departments of Psychiatry and Behavioral Sciences, and Medicine, in the School of Medicine, and from the National Institute on Aging Intramural Research Program. The goals of the follow-up are to provide data on the incidence and natural history of the most frequent mental disorders occurring during adulthood, to search for risk factors for disorders and syndromes, and to study the consequences of psychopathology in terms of physical illness, disability, cognitive and functional decline and dementia, physiological aging, and mortality. Data from the original five sites of the national ECA program and from the Baltimore ECA follow-up are available for analysis by members of the Johns Hopkins community, via a Sharepoint Team website on [my.jhsph.edu](http://my.jhsph.edu). The fifth wave of the Baltimore ECA follow-up is supported by grants from the National Institute on Aging.

## Wendy Klag Center for Autism and Developmental Disabilities

Primary faculty contact: Dr. Heather Volk, [hvolk1@jhu.edu](mailto:hvolk1@jhu.edu)

The Wendy Klag Center (WKC) is dedicated to the promotion of research and education regarding the origins, detection, measurement, and prevention of conditions that affect behavioral, socioemotional, and/or cognitive development related to developmental disabilities, as well as the evaluation of services and policies that support optimal development of affected children and their families. The Center, housed in Mental Health, is a school-wide effort that involves faculty and students across all departments who are pursuing research in autism or developmental disabilities. The Center offers journal clubs, seminars, and other events, as well as student internship placements and competitive student project funding and student travel awards. Current research by WKC faculty and students includes national autism surveillance with the CDC (ADDM network), a national autism case-control study focused on genetic and environmental contributions to etiology (the SEED study), a national pregnancy cohort study of autism spectrum disorder (the EARLI study), multiple projects in genetic and epigenetic analyses of these samples, and projects focused on services delivery and policy, as well as methodological research. The Center offers competitive student research funding, internships, and travel awards.

## Moore Center for the Prevention of Child Sexual Abuse

Primary faculty contact: Dr. Elizabeth Letourneau, [elizabethletourneau@jhu.edu](mailto:elizabethletourneau@jhu.edu)

The Moore Center for the Prevention of Child Sexual Abuse was established in October 2012 with philanthropic support from Dr. Stephen and Mrs. Julia Moore. The Center's vision is a world without child sexual abuse. Its mission is to effect prevention change by leading strategic efforts in research, education, communication, advocacy, and policy. With respect to research, Center projects focus on the development, evaluation, and dissemination of effective primary and secondary child sexual abuse perpetration prevention strategies, establishing the prevalence of child sexual abuse perpetration and related risk factors, and evaluating policy impacts. Regarding education, center faculty teach graduate courses on childhood victimization and collaborate locally, nationally, and internationally to bring relevant research to all stakeholders. Regarding communication, the center's full-time Communications Director ensures the broad promotion of our research findings. Regarding advocacy and policy, we collaborate with state, federal, and international lawmakers to increase resources for prevention and to ensure a strong focus on implementing effective policy and ending harmful policy. As just two examples: In 2020 we were successful in supporting a new line item in the U.S. federal budget that provides funding to the CDC specifically for child sexual abuse prevention research. Further, in 2021, our research was cited in the American Law Institute's Model Penal Code, which recommends (as do we) the end of juvenile sex offender registration, a costly and harmful policy. While the Model Penal Code stopped short of recommending the end of adult registration, it does overtly acknowledge the absence of supporting research (to which we have contributed) and recommends significant curtailment of this policy. We are proud of our influence at the center's 10-year mark and look forward to expanding our work and our influence in the next 10 years.

## Statistical Methods for Mental Health

Primary faculty contact: Dr. Rashelle Musci, [rmusci1@jhu.edu](mailto:rmusci1@jhu.edu)

The methods program area is interested in developing and applying innovative statistical methods for public mental health research. These methods are crucial for generating accurate answers to research questions. The methods, for example, help deal with complications regarding missing data and non-adherence in randomized trials, how

to analyze complex data such as DNA or complex longitudinal data, how to measure and model variables that are not directly observable, and how to integrate data from multiple sources or studies. There are strong links between the methods research group and other groups in the Department, such as mental health services & policy, prevention research, and substance use epidemiology. There are three particular research areas within this program area: causal inference (led by Dr. Stuart), measurement (led by Dr. Musci), and mixed methods (led by Dr. Gallo). The causal inference area focuses on the development of statistical methods for estimating causal effects in experiments and non-experimental studies, including for studying the effects of programs and policies. The measurement area includes the development and application of novel latent variable methods and data harmonization tools. The mixed methods area studies how to combine qualitative and quantitative methods. Student involvement in the methods program area consists of research assistance opportunities, related T32 training programs (in Mental Health Services & Systems and Data Analytics for Behavioral Health), as well as advising by faculty members in statistical and related methods. Relevant coursework includes term-long and summer institute courses in the Department of Mental Health, including a two-term sequence on statistics for psychosocial research, a course on causal inference, and a seminar on statistical methods for mental health research, with topics that evolve each year. Courses in the Biostatistics department are also relevant, and some doctoral students interested in this program area also pursue a concurrent MHS in Biostatistics. There are also close links with working groups in the Department of Biostatistics and with Methods cores of other centers, including the ALACRITY Center for Health and Longevity in Mental Illness, the ECHO study in the Department of Epidemiology, and the Wendy Klag Center for Autism and Developmental Disabilities.

## Other Collaborations

The Department faculty work in close association with city, state, and federal public mental health agencies, and enjoy working relationships with the Maryland State Department of Health and Mental Hygiene and the Baltimore City Health Department. Department faculty and staff also work with local non-profit agencies working in mental health, including Baltimore Mental Health Systems and the Behavioral Health Leadership Institute, the B'MORE Clubhouse, as well as with the Baltimore Substance Abuse Systems, Inc. In addition, the Department faculty has established close working relationships internationally with the WHO Department of Mental Health and Substance Abuse, the World Psychiatric Association, the National Center for Register-based Research in Denmark, and the World Federation for Mental Health.

## Department Organization

The department is led by the Department Chair, Dr. Pamela Collins. Under the chair is the Vice Chair for Diversity, Equity and Inclusion, Dr. Renee Johnson; Vice Chair of Research and Faculty, Dr. Rashelle Musci; and Vice Chair of Education, Dr. Judy Bass). The Department Chair appoints all committee chairpersons, faculty, and staff. In each case, the committee's function is to establish an agenda of interests in a specific area, initiate a discussion and review issues or requests, formulate a consensus and specific proposals or policies, and bring recommendations for action before the full Department for vote.

Within the department structure, there are several standing and ad-hoc committees that oversee faculty and student research, practice, and education. For specific questions on committee mandate and make-up, please contact the Vice Chairs or the Academic Program Administrator ([patty.scott@jhu.edu](mailto:patty.scott@jhu.edu)).

## Academic Training Programs

The Department of Mental Health supports multiple NIH-funded pre- and post-doctoral institutional training programs.

### ***Psychiatric Epidemiology Training (PET) Program***

This interdisciplinary doctoral and postdoctoral program is affiliated with the Department of Epidemiology and with the Department of Psychiatry and Behavioral Sciences at the School of Medicine. The Program is directed by Dr. Heather Volk (hvolk1@jhu.edu). The goal of the program is to increase the epidemiologic expertise of psychiatrists and other mental health professionals and to increase the number of epidemiologists with the interest and capacity to study psychiatric disorders. Graduates are expected to undertake careers in research on the etiology, classification, distribution, course, and outcome of mental disorders and maladaptive behaviors. The Program is funded with a training grant from the National Institute of Mental Health.

### ***Drug Dependence Epidemiology Training (DDET) Program***

This training program is co-led by Dr. Renee M. Johnson (rjohnson@jhu.edu) and Dr. Brion Maher (brion@jhu.edu). The DDET program is designed to train scientists in the area of substance use and substance use disorders. Research training within the DDET Program focuses on: (1) genetic, biological, social, and environmental factors associated with substance use, (2) medical and social consequences of drug use, including HIV/AIDS and violence, (3) co-morbid mental health problems, and (4) substance use disorder treatment and services. The DDET program is funded by the NIH National Institute on Drug Abuse. The program supports both pre-doctoral and postdoctoral trainees.

### ***Global Mental Health Training (GMH) Program***

The Global Mental Health Training (GMH) Program is a training program to provide public health research training in the field of Global Mental Health. It is housed in the Department of Mental Health (<http://www.jhsph.edu/dept/mh/>), in collaboration with the Departments of International Health and Epidemiology. The GMH Program is supported by a T32 research training grant award from the National Institute of Mental Health (NIMH). Dr. Judy Bass (jbass1@jhu.edu) is the training program director and Dr. Sarah Murray (Sarah.murray@jhu.edu) is the deputy director. As part of this training program, trainees will undertake a rigorous program of coursework in epidemiology, biostatistics, public mental health and global mental health, field-based research experiences, and integrative activities that will provide trainees with a solid foundation in the core proficiencies of global mental health while giving trainees the opportunity to pursue specialized training in one of three concentration areas that are recognized as high priority: (1) Prevention Research; (2) Intervention Research; or (3) Integration of Mental Health Services Research. The training grant supports both pre- and post-doctoral trainees.

### ***The Mental Health Services and Systems (MHSS) Program***

The Mental Health Services and Systems (MHSS) program is an NIMH-funded T32 training program run jointly by the Department of Mental Health and the Department of Health Policy and Management and has a close affiliation with the Johns Hopkins School of Medicine. Dr. Elizabeth Stuart (estuart@jhu.edu) is the training program director. The goal of the MHSS Program is to train scholars who will become leaders in mental health services and systems research. This program focuses on producing researchers who can address critical gaps in knowledge with a focus on: (1) how healthcare services, delivery settings, and

financing systems affect the well-being of persons with mental illness; (2) how cutting-edge statistical and econometric methods can be used in intervention design, policies, and programs to improve care; and (3) how implementation science can be used to most effectively disseminate evidence-based advances into routine practice. The program strongly emphasizes the fundamental principles of research translation and dissemination throughout its curriculum.

### ***Data Integration for Causal Inference in Behavioral Health Training Program***

This program is housed in the Department of Mental Health, with collaborators from Health Policy and Management, Health Behavior and Society, Population Family and Reproductive Health and Biostatistics. Dr. Elizabeth Stuart is the training program director, with Dr. Rashelle Musci as co-Director. The training program is part of a broader initiative to increase analytics training in the social and behavioral sciences. The program provides rigorous training and high-quality mentorship in: 1) the science of behavioral health; 2) computational and analytic tools to manage, analyze, and integrate complex data sources; and 3) causal inference methods to take full advantage of these data. The program leverages close connections with data scientists, statisticians, and computer scientists from across the University. This Program is supported by the National Institute of Mental Health.

### ***Epidemiology and Biostatistics of Aging (EBA) Program***

This program offers training in the methodology and conduct of significant clinical- and population-based research in older adults. This training grant, funded by the National Institute on Aging, has the specific mission to prepare epidemiologists and biostatisticians who will be both leaders and essential members of the multidisciplinary research needed to define models of healthy, productive aging, and prevention and interventions that will accomplish this goal. The Associate Director of this program is Dr. Michelle Carlson (mcarlso2@jhu.edu).

The EBA training grant has as its aims:

- Train pre- and postdoctoral fellows by providing a structured program consisting of a) course work, b) seminars and working groups, c) practica, d) directed multidisciplinary collaborative experience through a training program research project, and e) directed research.
- Ensure hands-on participation in multidisciplinary research bringing trainees together with infrastructure, mentors, and resources, thus developing essential skills and experience for launching their research careers.
- Provide in-depth knowledge in established areas of concentration, including a) the epidemiology and course of late-life disability, b) the epidemiology of chronic diseases common to older persons, c) cognition, d) social epidemiology, e) the molecular, epidemiological, and statistical genetics of aging, f) measurement and analysis of complex gerontological outcomes (e.g., frailty), and g) analysis of longitudinal and survival data.
- Expand the areas of emphasis to which trainees are exposed by developing new training opportunities in: a) clinical trials; b) causal inference; c) screening and prevention; and d) frailty and the integration of longitudinal physiologic investigation into epidemiology.
- Integrate epidemiology and biostatistics training to form a seamless, synthesized approach whose result is greater than the sum of its parts to best prepare trainees to tackle aging-related research questions.

These aims are designed to provide the fields of geriatrics and gerontology with epidemiologists and biostatisticians who have an appreciation for and understanding of the public health and scientific issues in human aging and the experience of collaborating across disciplines that is essential to high-quality research on aging. More information can be found on the training grant website at: <https://coah.jhu.edu/graduate-programs-and-postdoctoral-training/>

***Aging and Dementia Training Program***

This interdisciplinary pre- and postdoctoral training program is an interdisciplinary program, funded by the National Institute on Aging, affiliated with the Department of Neurology and the Department of Psychiatry at the School of Medicine, the Department of Mental Health at the School of Public Health, and the Department of Psychology and Brain Sciences at the School of Arts and Sciences. The Department of Mental Health contact is Dr. Michelle Carlson ([mcarlo2@jhu.edu](mailto:mcarlo2@jhu.edu)). The goal of this training program is to train young investigators in age-related cognitive and neuropsychiatric disorders.