

Johns Hopkins Center on Aging and Health – Fact Sheet, 2022

The Johns Hopkins Center on Aging and Health (COAH) is located on the main campus of the Johns Hopkins Medical Institutions and is jointly sponsored by the School of Medicine and the Bloomberg School of Public Health. It was established in 1997 as a Center of Excellence for Aging Research for the Johns Hopkins Medical Institutions. It houses multidisciplinary faculty, core staff, and research infrastructure. Core Departmental sponsors include the Departments of Medicine, Epidemiology, Biostatistics, Health Policy, Mental Health, and Population and Family Health Sciences. The Center is the home for multidisciplinary research faculty from each of these departments and the School of Nursing, the Older Americans Independence Center, The Cochlear Center for Hearing and Public Health, the Program in the Epidemiology of Aging, and the Training Program in the Epidemiology and Biostatistics of Aging. At present, 42 faculty members from 18 different Divisions or Departments across schools have faculty appointments in COAH. The Center was mandated to provide the focal point for the Johns Hopkins Medical Institutions, to include a critical mass of interdisciplinary research activities on aging and the home and "go-to" place for collegial interaction for research on aging and research training. With this mandate, COAH aims to establish a critical mass of cuttingedge multidisciplinary science designed to optimizing health in aging and to provide the necessary expertise and infrastructure for the sustainable conduct of such research and its translation into improving the health of older adults. The Center also serves as a training ground for the next generation of researchers on aging.

The goal of the Center is to promote the intellectual interactions that are essential to creative approaches to solving the important health and health care problems for an aging population. The core research in COAH involves population-based and clinical research on the causes and consequences of diseases, frailty and disability in older adults, characterizing groups at risk of adverse health outcomes, understanding social and other resources that promote health over the lifespan, and identifying causes and developing methods for screening and prevention. COAH traditionally has been focused on population aging but includes the full breadth of aging research, from the biology of aging to health policy, thus facilitating the translation of research discoveries into applications that will directly improve the health of older adults. This includes the Linked Administrative Data Resource, which is designed to facilitate the analyses of highly restricted electronic medical data (e.g., Medicare claims) that are linked to prominent cohort studies or clinical trials. Research and training programs are oriented around seven distinct but inter-related working groups: Frailty & Multisystem Dysregulation; Cognitive & Sensory Functions; Family & Social Resources; and Biostatistics & Research Design; Administrative Claims Analyses; Energy, Physical Activity, & Aging; and International Approaches to Aging. The Center provides key infrastructure, such as biostatistics and research design support, that supports clinical and population-based research in gerontology and geriatric medicine. For more information, please visit: http://coah.jhu.edu/

Johns Hopkins School of Medicine and Department of Medicine (JH-SOM/DOM): The JH-SOM/DOM has a long-standing tradition of excellence in clinical training in biomedical research. There are over 600 members of the full-time faculty and 300 postdoctoral fellows in the Department of Medicine. The School of Medicine receives more than \$250 million in research funding from the National Institutes of Health, more than any other medical school. Currently there are over 3000 active studies and protocols approved by the Institutional Review Board at the Johns Hopkins Medical Institutions. The Division of Geriatric Medicine and Gerontology, led by Dr. Cynthia M. Boyd, MD MPH, is a division of the JH-SOM/DOM. The Johns Hopkins Alzheimer's Disease Research Center (ADRC), led by COAH faculty member Dr. Marilyn Albert, is housed within the School of Medicine, and the Welch Center for Prevention, Epidemiology, and Clinical Research is supported by the Johns Hopkins School of Medicine and the Bloomberg School of Public Health. The Johns Hopkins Disability Research Center, led by COAH faculty member Dr. Bonnie Swenor, also brings together faculty from across schools. Eleven of COAH's core faculty, along with six associate faculty and seven senior associate faculty members, have primary appointments in the JHU School of Medicine. Of these faculty, 50% are primary to Geriatric Medicine and Gerontology.

Division of Geriatric Medicine and Gerontology: Located primarily on the Johns Hopkins Bayview Medical Center, the Division of Geriatric Medicine and Gerontology aims to prepare physicians in training to be leaders in academic geriatric medicine; to practice exemplary clinical care for older persons; to facilitate research to



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improve the care of older adults; and to foster translation of research into practice. Its research ranges from basic molecular and cellular biology to clinical and population-based research. The Center on Aging and Health is one of the main research centers within the Division of Geriatric Medicine and Gerontology, along with the Center for Transformative Geriatric Research. The Division is a current recipient of multiple NIH and foundation research grants. These include NIA P30 Center grants: the Claude D. Pepper Older Americans Independence Center, led by COAH faculty members Drs. Karen Bandeen-Roche and Jeremy Walston, and the Artificial Intelligence and Technology Collaboratory in Aging Research, also led by Dr. Walston. Its clinical services include house calls (JHOME), an ambulatory geriatric medicine practice, a Program of All-Inclusive Care of the Elderly (PACE), a complete long-term and sub-acute care center, an inpatient consultation service and geriatrics specialty clinics.

The Johns Hopkins Bloomberg School of Public Health: The Bloomberg School of Public Health (BSPH, formerly "The School of Hygiene and Public Health") is the oldest school of public health in the world. It was established in 1916 to be a school of biological, physical, social and behavioral sciences. Its goal, then and now, is to preserve and improve the health of the public. It is composed of ten departments and a variety of research centers. Its faculty are leading research experts in many fields and disciplines, including biostatistics, epidemiology, health services research, health education, health communication, sociology, anthropology, health economics and finance, health law and ethics, medicine, nursing, operations research, political science, psychology, policy analysis and public health practice. Beyond being the largest school of public health, the Johns Hopkins Bloomberg School of Public Health is one of the most distinguished schools of public health in the country. The diverse student body, the abundant faculty are leaders in their respective fields, and the broad range of educational, research, and service opportunities available at the school fosters a dynamic learning environment. The Bloomberg School of Public Health offers an MPH Concentration in Aging and Public Health, as well as a Certificate in Gerontology program; and the Department of Epidemiology offers a track in the Epidemiology of Aging. The BSPH is home aging-focused research centers, including the Johns Hopkins Alzheimer's Disease Resource Center for Minority Aging Research, led by COAH faculty members Drs. George Rebok and Roland Thorpe; the Cochlear Center for Hearing and Public Health, led by COAH faculty member, Dr. Frank Lin; Hopkins' Economics of Alzheimer's Disease & Services Center, co-led by COAH faculty member Dr. Jennifer Wolff; and the Roger C. Lipitz Center for Integrated Health Care, also led by Dr. Wolff. Seven of COAH's core faculty, along with five associate faculty and four senior associate faculty members, have primary appointments in BSPH across the departments of Biostatistics, Epidemiology, Health Policy and Management, Health, Behavior & Society, International Health, and Mental Health.

The Johns Hopkins University School of Nursing (JHU-SON): JHU-SON is one of the highest ranked nursing schools in the country. It is ranked No. 1 among Nursing Graduate Programs in US News and World report, also ranked among the top nursing PhD programs in the U.S. by the National Research council. The mission of the Johns Hopkins University School of Nursing is to improve the health of individuals and diverse communities locally and globally through leadership and excellence in nursing education, research, practice, and service. The academic rigor of the JHU-SON programs, the extraordinary nursing scholarship of the faculty, and the reputation for shaping nursing graduates who are leaders in their profession positions JHU-SON as one of the top nursing schools in the U.S. Within the JHU-SON, The Center for Innovative Care in Aging uses novel approaches to enhance the yield of programs, policies, practices, and tools to help diverse older adults remain healthy, independent, and living in their own homes and communities. The Center for Innovative Care in Aging is shortening the time from intervention to implementation of clinical trial evidence. The JHU-SON is also home to the <u>Promoting Resilience in Persons with Multiple Chronic Conditions</u> (PROMOTE) research center, founded on leading a unique shift in the current paradigm of disease-specific models of care to person-centered, community-focused methods that address various factors affecting health including functional limitations, family caregivers' perspectives, poverty, housing, access to food, or traumatic life events. Two of COAH's core faculty members, including SON Dean, Dr. Szanton, have primary appointments in the JHU School of Nursing

Aging-focused Training:



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- Epidemiology and Biostatistics of Aging Training Program NIH T32 (Director: Karen Bandeen-Roche): trains pre-doctoral and postdoctoral fellows in the methodology and conduct of quantitative and population-based research in older adults, spanning both physical and cognitive/mental aging.
- Health Services and Outcomes Research for Aging Populations Training Program NIH T32
 (Director: Jennifer Wolff and Cynthia Boyd): provides pre-and postdoctoral training in person- and
 family-oriented research relating to aging populations that spans health services, health economics,
 gerontology, nursing, health informatics, and geriatrics.
- Research Training in Age-Related Cognitive Disorders NIH T32 (Director: Marilyn Albert): trains pre- and postdoctoral fellows in the vast field of cognitive disorders related to the aging nervous system, including: age-related cognitive change and age-related cognitive disorders
- Translational Aging Research Training Program NIH T32 (Director: Jeremy Walston): supports
 postdoctoral fellows in developing careers that utilize clinical translational approaches to improve the
 health and well-being of older adults, from basic biology and engineering discovery to clinical
 translation.
- Certificate in Gerontology, Johns Hopkins Bloomberg School of Public Health: provides a
 comprehensive curriculum that covers health issues confronting aging populations and commonly used
 terms, conceptual frameworks, and domains of gerontology study.
- MPH Concentration in Aging and Public Health, Johns Hopkins Bloomberg School of Public Health: is designed for Master of Public Health students seeking training in quantitative research methods who would like exposure to a multi-systems approach to the study of aging.

Selected Aging-related Datasets/Studies for which COAH Faculty hold a major leadership role:

- Advanced Cognitive Training for Independent and Vital Elderly (ACTIVE) Study—COAH Core faculty member Dr. Rebok was the P.I. of the JHU field site.
- Atherosclerosis Risk in Communities Study (ARIC) and Neurocognitive Study (ARIC-NCS)—
 Core Faculty Dr. Bandeen-Roche is the JHU site statistical leader. Core faculty Dr. Spira is leading a study of midlife sleep and late-life brain amyloid in the cohort.
- Baltimore Epidemiologic Catchment Area (ECA) Study—Core faculty Adam Spira is MPI of the study.
- Baltimore Longitudinal Study on Aging (BLSA)— Core faculty Dr. Schrack is Program Director for a
 U01 to study energy reserves, physical activity, and Alzheimer's disease in these data.
- Cardiovascular Health Study (CHS)— Core faculty Dr. Carlson is the PI of the JHU Field Center, and Drs. Walston and Xue are PIs of ancillary studies.
- Experience Corps— Core faculty Dr. Rebok was the PI; Dr. Carlson led projects to evaluate cognitive, functional and brain health. Dr. Carlson is PI of a current grant to follow up former trial participants to examine the program's long-term impact.
- Ginkgo Evaluation of Memory Study (GEMS)— Core faculty Dr. Carlson is the PI for the Johns Hopkins Field Center.
- Linked Administrative Data Resource (LADR)— Core faculty Dr. Amjad leads LADR and Center Director Dr. Roth established this resource.
- National Health and Aging Trends Study (NHATS)— Core faculty Dr. Schrack is the NHATS PI and Dr. Bandeen-Roche participated in the design.
- Study of Physical Resilience in Aging (SPRING)— Core faculty members Drs. Bandeen-Roche,
 Varadhan and Walston are MPIs, and many Center faculty collaborate.
- Women's Health and Aging Studies (WHAS)—Core faculty Dr. Bandeen-Roche is Pl.



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