a public health approach to ADRD risk reduction will be presented from the perspective of the CDC’s Building Our Largest Dementia Infrastructure Public Health Center of Excellence on Dementia Risk Reduction (Baumgart).

THE EVOLUTION OF A PUBLIC HEALTH APPROACH TO ADRD AND THE ROLE OF RISK REDUCTION
Lisa McGuire¹, and Eva Jackson², 1. CDC, Atlanta, Georgia, United States, 2. Alzheimer’s Association, Chicago, Illinois, United States

CDC, through the Healthy Brain Initiative (HBI) and Building Our Largest Dementia (BOLD) Infrastructure Act, is working to advance cognitive and brain health as integral components of public health practice, to keep older Americans healthy and independent as long as possible. HBI promotes brain health as part of public health practice and BOLD strives to build a uniform public health infrastructure. Both HBI and BOLD focus not only on people with cognitive decline or dementia but also their health care providers and caregivers. Recently, the 2021 Alzheimer’s Disease National Plan added Goal 6, Accelerate Action to Promote Healthy Aging and Reduce Risk Factors for Alzheimer’s Disease and Related Dementias. This presentation will describe the evolution of public health’s role with respect to brain health and caregiving and how the national priority on risk reduction and healthy aging can be beneficial to the health and well-being of older adults.

MODIFIABLE RISK FACTORS FOR ALZHEIMER’S DISEASE: CURRENT STATUS AND OPPORTUNITIES FOR ACTION
John Omura, CDC, Atlanta, Georgia, United States

In 2021, the National Plan to Address Alzheimer’s Disease included a new goal to address risk factors for ADRD. The Behavioral Risk Factor Surveillance System (BRFSS) assesses several modifiable risk factors in its core survey and subjective cognitive decline (SCD), which may be an early indicator of developing ADRD, in the optional Cognitive Decline module. To assess the current status of modifiable risk factors in the US and identify opportunities for public health action, data from the 2019 BRFSS were examined. Prevalence of eight modifiable risk factors for ADRD and proportion of respondents with total number of risk factors was estimated among respondents aged ≥45 years, overall, by SCD status, and by selected demographic characteristics. Findings can inform strategies and priorities to support the National Plan’s new goal to reduce modifiable risk factors to help delay onset or slow progression of ADRD and its symptoms.

BUILDING OUR LARGEST DEMENTIA (BOLD) INFRASTRUCTURE FOR RISK REDUCTION
Heidi Holt¹, Laura Whalen¹, and Lisa Garbarino², 1. CDC, Atlanta, Georgia, United States, 2. Centers for Disease Control and Prevention, Atlanta, Georgia, United States

The Building Our Largest Dementia (BOLD) Infrastructure for Alzheimer’s Act (PL115-406) supports public health agencies to develop a uniform dementia infrastructure across the US. Applying a robust public health approach to ADRD that emphasizes data driven decision-making and action along with primary, secondary, and tertiary prevention strategies (e.g., risk reduction, early diagnosis, linkages to treatment and care, and the prevention and management of comorbidities leading to preventable hospitalizations and poor health outcomes) for persons living with dementia and their caregivers. Recipients of the BOLD Public Health Programs funds are expanding jurisdiction Dementia coalitions, updating, or creating Dementia Strategic Plans, and implementing strategies from those plans that address a wide variety of life-course strategies for brain health and dementia, including risk reduction. This presentation will explain how risk reduction is integrated and provide examples of several activities being planned and implemented by recipients.

GETTING TO BOLD USING SYSTEMIC EDUCATION, EVIDENCE, AND NETWORKS: HELPING GEORGIANS B-SEEN
Elizabeth Head, Georgia Department of Public Health, Atlanta, Georgia, United States

The complex nature of Alzheimer’s disease and related dementias (ADRD) demands a comprehensive public health approach. Georgia is Building Our Largest Dementia infrastructure using Systemic Education, Evidence, and Networks (B-SEEN), with a vision for every Georgian – professional, patient, and care partner – to B-SEEN. The strength of Georgia’s B-SEEN project is the existing infrastructure. Leveraging this established network, Georgia has engaged in population-based efforts to increase impact in the dementia risk reduction, early diagnosis of ADRD, prevention and management of comorbidities and avoid hospitalizations, and caregiving. These outcomes are being achieved by stakeholders disseminating evidence-based programs personalized to their community needs and the B-SEEN team leading coordinated activities that address dementia and support the promotion of brain health. This presentation will describe how ADRD risk reduction is integrated into a 159 county, de-centralized state and provides examples of several activities being implemented via Georgia extension, faith-based organizations, and dedicated partners.

PUBLIC HEALTH PRIORITIES AND FUTURE DIRECTIONS FOR ALZHEIMER’S DISEASE RISK REDUCTION
Matthew Baumgart, Alzheimer’s Association, New York, New York, United States

Reducing risk for diseases and chronic conditions is a fundamental priority of public health. Since 2007, the Alzheimer’s Association has partnered with the CDC on the development of a series of Public Health Road Maps to guide the public health community in addressing cognitive health. In addition, the Alzheimer’s Association’s Public Health Center of Excellence on Dementia Risk Reduction, funded by the CDC, provides guidance on how public health can address the risk factors for cognitive decline and dementia. With recent advancements in the science on dementia risk factors, we can now identify targets for public health action. The addition of a national goal to address
dementia risk factors underscores the urgency to act. This presentation will offer a perspective on how public health can move forward, through prioritization and action, in addressing risk factors for cognitive decline and dementia, including by addressing social determinants of health and health equity.

ACCELERATED AGING AMONG ADULTS LIVING WITH CEREBRAL PALSY
Mark Peterson¹, Sudarshan Dayanidhi², Patrick McPhee³, and Heidi Haapala¹. ¹. University of Michigan, Ann Arbor, Michigan, United States, ². Shriley Ryan AbilityLab/Northwestern University, Chicago, Illinois, United States, ³. McMaster University, Hamilton, Ontario, Canada

Cerebral Palsy (CP) is the most common pediatric-onset physical disability, with an estimated prevalence ranging from 2.6-3.1 cases per 1,000 live births in the United States. There is a lack of clinical follow-up for individuals with CP after they transition from pediatric to adult primary care, and insufficient surveillance to track patients with CP longitudinally. Despite the shortage of research to examine the natural history of CP and chronic disease trajectories in this population, a range of secondary conditions arise at an accelerated rate as compared to the adult population without CP, prompting the widespread notion and clinical hypothesis that patients with CP are prone to accelerated aging. These factors further worsen functional status and quality of life, as well as lead to decreased independence. Despite the well-established interrelationships between physical and mental health disorders in the non-CP older adult population, the extent to which, mechanisms underlying, and time course associated with the development of these chronic conditions among adults living with CP has received little empirical attention. The proposed course will build upon our ongoing work by highlighting new findings from three centers doing research pertaining to aging with CP, and will cover novel mechanisms of musculoskeletal pathophysiology in CP, risk factors of and unique CVD profiles among adults with CP, and new findings related to health trajectory differences of adults with CP from clinical and population-representative cohorts. We will also provide insights into the pathophysiologic mechanisms linking early frailty and long-term health outcomes among persons with CP.

SKELETAL MUSCLE MITOCHONDRIAL PHYSIOLOGY IN CHILDREN WITH CEREBRAL PALSY: CONSIDERATIONS FOR HEALTHY AGING
Sudarshan Dayanidhi, Shriley Ryan AbilityLab/Northwestern University, Chicago, Illinois, United States

During healthy aging, there is an overall decline in mitochondrial activity and abundance, increase in mitochondrial DNA mutations, increase in oxidative stress, and reduction in overall muscular capacity. Individuals with cerebral palsy (CP) have significantly increased energetics of movement, reduced endurance capacity, and increased perceived effort. We will cover the results of recent work in muscles in ambulatory children with CP that show a marked reduction in mitochondrial function. Muscles show that mitochondrial protein content and DNA copy number are lower, suggesting a reduction in mitochondrial abundance, along with a reduction in markers for mitochondrial biogenesis. Gene expression networks are reduced for glycolytic and mitochondrial pathways and share similarities with gene networks with aging and chronic inactivity. Given the importance of mitochondria for energy production and changes with aging, ongoing efforts are needed to assess changes in mitochondria across the lifespan in people with CP.

THE FORMULA FOR CARDIOVASCULAR HEALTH AND WELL-BEING IN ADULTS WITH CEREBRAL PALSY
Patrick McPhee, McMaster University, Hamilton, Ontario, Canada

Persons with cerebral palsy (CP) have mobility limitations, heightened sedentary behavior, and are at increased risk for cardiovascular disease (CVD). Dr. McPhee will cover his innovative work to develop a core outcome set for cardiometabolic disease risk assessment in adults with CP, and will further discuss recent findings from ongoing work pertaining to novel CVD risk indicators showing accelerating cardiovascular aging in CP. Dr. McPhee will also present recent work on the role of exercise, sleep, and healthy nutrition in the context of healthy aging for individuals with CP across the lifespan.

NAVIGATING THE PATHWAY TO CARE IN ADULTS WITH CEREBRAL PALSY
Heidi Haapala, University of Michigan, Ann Arbor, Michigan, United States

As individuals with CP age, they face unique challenges which complicate their ability to access and receive appropriate health care. These problems exist at the level of the health care system, the clinician, and the individual. At the system level, there is an inadequate number of professionals who are informed of and interested in the care of adults with CP. Adult caregivers are often not knowledgeable about and may feel less competent about patients with CP. Differences in the physiologic development of individuals with CP render well-established clinical protocols for risk screening of chronic diseases less effective. Dr. Haapala runs an adult CP clinic and will present her clinical experience with treating complex patients with CP. She will present specific information pertaining to her work in studying and treating chronic overlapping pain in adults with CP, as well as her efforts to reduce polypharmacy and opioid dependence in her patients.

SESSION 2501 (BIOLOGICAL SCIENCES INVITED SYMPOSIUM)

ESPO AND BIOLOGICAL SCIENCES SECTION SYMPOSIUM: HIGHLIGHTING THE FUTURE LEADERS OF GEROSCIENCE
Chair: Matt Yousefzadeh