

**Center for Healthy Aging
Strategic Plan, 2014-2019**

I. The Center for Healthy Aging: Mission Statement and Rationale

- **THE MISSION** of the Center for Healthy Aging is to facilitate research, education and outreach that promotes emotional, physical, and cognitive health in older adults and their families.
- **Why should aging be priority?** Our society is rapidly aging and more people are living longer than ever before. To put numbers to this phenomenon, between now and 2050 the proportion of the world’s population age 60 and over will double, the number of people aged 80 and over will quadruple, and the number of centenarians will increase by over 1000%, reaching about 5 million worldwide. This increase in longevity presents both exciting opportunities and urgent challenges to society. Some of these challenges include managing an increasingly older workforce, controlling health care costs, and informing policies that support an older and more active population. Population aging also implies that people of different generations will be living, learning and working together than ever before. This irreversible demographic trend drives home our responsibilities as scientists to find ways to help people maintain a productive and healthy lifestyle into old age, and as educators to prepare our students to work in and contribute to a society that is not only older, but also more age diverse.

II. Our Vision for the Center for Healthy Aging

- **Who are we?** Investigators and students in the center follow an interdisciplinary and developmental approach to research on health and well-being in adulthood. We are leaders in the study of how everyday experiences behaviors and family processes influence our health and quality of life. During the past 5 years the Center has nearly doubled its level of external funding, established new collaborations across the College and University, spearheaded University-wide initiatives in utilization of mobile technology for research, conducted a major revision of the undergraduate Gerontology Minor, and made great strides in community engagement and outreach.
- **OUR VISION** is to translate cutting-edge aging science into programs and products that transform old age into long life.

III. Our Goals for the Center for Healthy Aging

- Our Center has two long-term goals:
 1. **Preventing and reducing the negative effects of chronic conditions on the well-being and quality of life in older adults and their families.** Four out of five older adults suffer from at least one chronic health condition and more than half suffer from multiple conditions. Approximately 85% of all health care spending is for people with chronic conditions. In addition to the economic impact, chronic health problems significantly impact the quality of life of older adults, increase risk for loss of independence and

social isolation, and impose burdens on caregivers and their families. This theme builds upon our longstanding expertise in the study of risk and protective factors, as well as developing approaches to better manage the effects of chronic illness on both patient and family.

2. **Promoting Brain Health in order to reduce the risk for cognitive impairment and dementia.** Maintaining a clear and active mind in old age can mean the difference between remaining autonomous and losing independence. As of 2002 an estimated 5.4 million adults (22%) over the age of 70 had cognitive impairment without dementia. Another 5+ million seniors suffer from Alzheimer’s and related dementias. Annual health care costs associated with cognitive impairment in seniors will surpass \$1.1 trillion by 2050. Identification of risk factors in midlife that can be modified prior to the development of cognitive impairment in old age represents a critical challenge to controlling health care costs and improving quality of life for seniors and their families. Also, because cognitive aging may begin long before old age, understanding its antecedents requires tracking cognitive changes that manifest in early adulthood and midlife. This theme builds on our long-standing strength in cognitive aging, our research on lifestyle determinants of cognitive impairment and dementia, and newly acquired talent in cognitive interventions.

- In order to achieve these goals, our research and educational priorities must not only acknowledge but also explicitly address these challenges, and leverage the opportunities afforded by changing social contexts that reflect an increasingly age diverse and intergenerational environment.

IV. Our Strategy

- The Center for Healthy Aging will engage in strategic capacity building that leverages strengths and interests across multiple units in our college and across campus. The Center has considerable expertise in the study of behavioral, psychological and contextual processes and mechanisms that promote or threaten healthy aging. For example, we are leaders in the study of daily stress processes and their immediate and long term effects on well-being, physical health, and cognitive function. There is, however, relatively little expertise in lower level processes (e.g., biological mechanisms) that underlie these effects, and in macro level approaches (e.g., community research, dissemination) to intervene and prevent chronic conditions that threaten healthy aging. Therefore, the Center will partner with academic departments to build capacity in the following areas:
 1. Expertise in biological processes that support or threaten healthy aging, and that underlie the effects of interventions to promote healthy aging.
 2. Expertise in community based research, interventions, and dissemination, with emphasis on chronic illness, prevention and intergenerational approaches.
 3. Expertise in adapting technology for use by and for older adults to maintain their social connections and cognitive health, and to assist in the monitoring and management of chronic conditions.

V. Cross-Cutting Themes and Philanthropic Priorities

- Funding for Cluster Hires in Aging. Given recent and future demographic trends, any discussion of the future of health science has to take place against the backdrop of our rapidly aging population. Core research themes across units in our college, such as physical activity, nutrition, stress, and inflammation are all central issues in aging science. Our College must invest heavily in order to position itself to address the most pressing social problems posed by the aging population. We propose to seek funding to support a broad and targeted “Aging Cluster Hire” to infuse aging science into every academic department in the College. Based on a review of faculty in the College, only HDFS, HPA and recently CSD have a sufficient representation of faculty with expertise in aging. A cluster hire of approximately 6-8 faculty over the next 5 years that builds strength in the *biology of aging*, *community based research*, and *technology application* would prove transformative, not only for creating a critical mass for novel research opportunities, but also for student training.
- In addition to seeking endowment support for an aging cluster hire, we have identified three thematic areas that hold considerable promise for developing synergies with other units within the College and across the University. These are:

1. Leveraging Technology for Health Promotion In older adults. Faculty from multiple academic units (BBH, KINES, HDFS, CSD, RPTM) use technology, particularly mobile technology, to measure and intervene on behavior, psychological states, and physiology to promote health and manage illness. Despite the ubiquitous use of “health” apps, these products have a paltry and unimpressive evidence base for their effectiveness and validity, and even more important, are not targeted at the health needs of older adults. Applications in gerontology represent a new frontier in e-Health and one which our Center and several units in our College (BBH, KINES, HDFS) are uniquely poised to tackle.

Philanthropic Priority: Seek funding to support innovation for developing an evidence-based ‘virtual’ platform for health monitoring and intervention using mobile technology. This initiative would leverage strengths in our Center and HDFS (the study of daily experiences), in Kinesiology (using sensors to monitor physical/sedentary behavior), and in BBH (innovative ecological momentary intervention [EMI]) to create a truly novel program and tangible product that would find widespread use by researchers, health care professionals, employers and consumers. Our Center’s interest is in applications focused on the needs of older adults and their families, but this priority has extremely broad applicability for consumers of all ages.

2. Educational Emphasis on Aging. Despite rapidly growing demand for careers in aging, relatively few students (both undergraduate and graduate) express interest in aging. This lack of interest stems directly from a lack of positive intergenerational experiences. Our Center has taken a leadership role in addressing this issue by

managing the undergraduate minor in Gerontology, organizing and co-sponsoring a Careers in Aging Week program, and developing new internship opportunities. We have partnered with the Dean's office, academic departments (HDFS, HPA, SHM) and our community stakeholders to develop new curricula that educates students about opportunities in aging related careers.

Philanthropic Priority: Seek funding for student scholarships (undergraduate) that encourage students to explore opportunities in aging studies and careers. These academic scholarships would support students who pursue scholarly and experiential learning activities focused on aging and gerontology. We have the opportunity for some truly exciting and novel ideas, which include support for intergenerational community engagement and intergenerational co-housing, as well as involving undergraduates in cutting-edge aging research.

3. Community Engagement. Most of the research currently conducted through the Center occurs in other communities and even other states. During the past several years the Center has successfully developed a program of local community engagement, which includes both research activities and outreach. We have established a number of community partnerships that include local and regional health care organizations, retirement centers and state agencies. One of our most notable accomplishment has been the development of the Healthy Aging Community Lecture Series, which consists of 4 annual lectures from Penn State Faculty. The purpose of these lectures is to disseminate cutting-edge aging science to stakeholders in a non-technical but scientifically rigorous manner. We have had widespread participation by faculty from many academic units, including HDFS, NUTR, KINES, RPTM, BBH, PSYCH, and Hershey. We have approximately 100 attendees at each lecture.

Philanthropic Priority: Seek funding to make this lecture series sustainable and significantly enhance its impact and reach. One idea is to adapt each lecture into a brief, engaging and high impact "Webcast" that could be accessed by anyone, anywhere and anytime. These Webcasts would provide understandable, non-technical and practical translations of cutting-edge aging research on topics such as dementia prevention, dietary needs people 65+, and lifestyle impacts on health. This would be a broad, college-wide outreach initiative, with partners in Nutrition, BBH, The College of Nursing, and Kinesiology. Complementary venues and activities would include call-in talk shows (WPSU, PBS), and HHD Sponsored "Health Fairs."