

Health and Wellness in an Aging Society Course Description

The course description, below, details what will be covered during the five-week online course. Supplemental readings will help to enhance your understanding of the five modules. Each week's lectures, readings and activities will take three to five hours to complete. Participants must pass a weekly quiz with a score of 80% to earn the certificate of completion.

Week 1

Part I. Course Introduction

Pinchas Cohen, M.D.

Dean, USC Leonard Davis School of Gerontology

Part II. Demography & Epidemiology of Aging and the Role of Social Factors Affecting Health and Longevity

Jennifer Ailshire, Ph.D.

Assistant Professor of Gerontology

Populations are always changing as individuals are born, grow old, and eventually die. The details of who is included, their health and lifestyle, and how that is changing is studied by demographers and epidemiologists. This presentation will include summary charts and the results of relevant research studies.

After participating in this section of the course, participants will:

- Gain a deeper understanding of how racial/ethnic and socioeconomic differences lead to differing risk of disease and death.
- Understand disease and disability risk factors and the extent to which social and lifestyle factors predict later life health outcomes.
- Understand that correlation does not mean causation and the wide variability in the relative effect of risk factors for chronic disease across countries.
- Understand that negative results are often not published or not easy to find, so lay reading of the literature can lead to overconfidence in the cause and effect association of published results.
- Understand confounding, mediating, and moderating risk factors.

Week 2

Self-Care Management Programs for High Risk Older Adults

Kathleen Wilber, Ph.D.

Mary Pickford Foundation Professor of Gerontology

This part of the course will discuss chronic disease, self-care management support, and the individuals who provide such support. Following the self-care management section, course participants will:

- Be familiar with the core concepts behind successful chronic disease self-management programs including those models tested in the care transitions intervention, peer support self-management, empowerment-based programs, and motivational interviewing.
- Understand behavioral goal setting, problem solving, and social support as strategies for coping with negative feelings and building self-efficacy.
- Understand the challenges older patients and caregivers face with intricate details of self-management goals and instructions, medication changes, and medical testing.
- Be familiar with supportive communication strategies, such as using autonomy-supporting statements or prompting self-management coping techniques.

Week 3

What You Should Know About Chronic Disease

Edward Schneider, M.D.

Dean Emeritus and Professor of Gerontology and Medicine

Studies such as the Framingham Heart Study, the British Doctors Study, and the Seven Countries Study opened our eyes to see the links between lifestyle choices—such as smoking, physical inactivity, and diet—and the risk of chronic diseases that lead to disability and death. The long latency between the initiation of a risk factor and the disease outcome leads many to believe their lifestyle habits won't affect their later quality of life. Many chronic diseases have now been associated with the inflammatory model of disease; thus, many chronic diseases share similar biological and lifestyle risk factors. This section of the course will instruct participants in the medical issues associated with many of the most common chronic diseases, including diabetes, arthritis, glaucoma, lung disease, osteoporosis, and issues affecting vision.

Following the chronic disease session, participants will:

- Be familiar with the symptoms, treatment, and prognosis for many of the most common chronic diseases affecting older adults.
- Gain understanding of the prevalence of major chronic conditions and projections of future prevalence.
- Be able to recognize many physiological changes that are part of normal aging and independent of disease.
- Be familiar with sensory issues associated with aging that can affect safety.
- Understand how sleep patterns change with age.
- Recognize how fever is presented in older adults.
- Be familiar with health behaviors that might prevent or delay disease development.

Week 4

Dementia and Mental Health: Unique Challenges Affecting Underserved Communities

Donna Benton, Ph.D.

Research Assistant Professor of Gerontology

The section on dementia and mental health will discuss the unique issues associated with each form of dementia and strategies for both treating the disease and coping with the symptoms and caregiving needs. Chronic disease self-management strategies tailored specifically to Alzheimer's and related forms of cognitive impairment will be discussed, including community-based service models that may provide respite and assistance to families. Lower-income families and others living in underserved communities often have fewer professional support resources and may depend on family, friends, affinity groups with a shared interest, or help from religious organizations for support. Factors associated with mental health conditions and possible intervention programs will be discussed, with an emphasis on programs and strategies that can address the needs of minority populations.

Following the dementia and mental health session, participants will:

- Be familiar with the many types of dementia.
- Learn statistics about the prevalence and growth of each type of dementia.
- Be familiar with major risk factors.
- Understand the general progression of symptoms commonly displayed before and after diagnosis.
- Be familiar with assessment tools for identifying Alzheimer's disease and dementia.
- Be familiar with treatment options and recent therapeutic interventions.
- Be familiar with the signs and symptoms of depression and factors that might affect prognosis.

Week 5

Medication Management Challenges and Opportunities

Edward Schneider, M.D.

Dean Emeritus and Professor of Gerontology and Medicine

Aaron Hagedorn, Ph.D.

Assistant Professor of Gerontology

A checklist of medication management advice will be provided that demonstrates the complicated pharmacokinetic and pharmacodynamics issues of greatest concern to older adults. Polypharmacy is a unique challenge because most patients are taking multiple drugs, with prescriptions from multiple physicians that may be similar medications or lead to harmful drug interactions. It is best to minimize the number of prescriptions in order to minimize risks. Taking more than five drugs simultaneously can often lead to more side effects, including renal failure. A combination of drugs can magnify side effects, particularly causing depression and memory loss. Issues of drug affordability and the consequences of not following prescriptions closely will be discussed.

Following this session, participants will:

- Understand the risks and common side effects associated with polypharmacy, or taking multiple drugs.
- Be familiar with statistics about prescription drug compliance and usage among older adults.
- Understand the manifestation of adverse drug reactions.
- Understand some of the more common pharmacokinetic and pharmacodynamic changes associated with aging.
- Be familiar with some of the drug-disease interactions that may complicate disease management
- Be familiar with drugs that interfere with sleep.
- Be familiar with drugs that are not appropriate in advanced dementia patients.
- Understand strategies for managing drug compliance.

USC Faculty Include:



Pinchas Cohen, M.D.

Expertise in neurodegeneration, cancer and diabetes. Cohen is well known for the emerging science of mitochondrial-derived peptides. Cohen is also Dean of the Davis School of Gerontology.



Ed Schneider, M.D.

Expertise in polypharmacy: overuse of drugs in the aging population, Long term care costs, and geriatrics.



Jennifer Ailshire, Ph.D.

Expert in population health, demography, social determinants of health, health disparities, neighborhoods, and aging and the life course.



Donna Benton, Ph.D.

Expert in dementia, elder neglect, stress, and caregiving among ethnic minority populations.



Kathleen Wilber, Ph.D.

Expert in health services administration, elder abuse, policy issues, and conservatorship/guardianship.



Aaron Hagedorn, Ph.D.

Expert in evidence-based health care interventions, measurement of life lived in poor health or disability, and technological interventions that can enhance quality of life for older adults.