In this course, you will learn about demographic trends contributing to the aging of the U.S. population, implications of population aging for the U.S. health care system, and predicted impacts on patients, physicians and medical trainees.

Questions or comments? Contact us here.

Instructions: Click Start above or navigate to a section below to begin
Additional Resources
Learning Objectives

After completing this course, you will be able to:

1. Describe current age and fertility demographic trends in the United States
2. Identify the potential impacts of those trends on the U.S. health care system
3. Recognize predicted impacts of the aging population of the United States on patients, physicians and medical trainees
The population of the United States is aging

Projections indicate that by 2035, for the first time in United States history, people age 65 and older (78.0 million) will outnumber children under the age of 18 (76.4 million).

The median age in the United States is expected to reach **43 by 2060**, up from 38 in 2018. As the population ages, the number of deaths is projected to rise significantly, causing the country’s natural growth to slow.
The **old-age dependency ratio** refers to the number of working-age adults to older adults. In 2020, there will be approximately a **3.5:1 ratio of working-age adults to retirement-age adults**. That ratio is projected to fall to **2.5:1** in 2060.

By 2030, all baby boomers (typically defined as those born from 1946 to 1964) will be older than 65.

**Sources:**
Birthrates are declining

There were fewer children born in the United States in 2017 than in any year since 1987, and the birthrate fell for nearly every group of reproductive age women.

Instructions: Flip cards to reveal definitions

What is total fertility rate?

An estimate of the total number of babies a hypothetical group of 1,000 women would likely have over their lifetime. As of 2017, total fertility rate stood at 1,764.5 per 1,000 women, nearly 16% below the level at which a generation would replicate. 
U.S. population growth is slowing and changing

Beginning in 2030, net international migration is expected to overtake natural increase as the driver of population growth in the United States.
Population growth in the United States is projected to slow. The population has grown by an average of 2.3 million people per year and is expected to maintain the same annual rate until 2030. That rate is projected to decrease to 1.8 million per year from 2030 to 2040, and to 1.5 million per year from 2040-2060.

The following chart displays the projected growth of the U.S. population in 2030 compared to 2060 by source.

Instructions: Click question marks to reveal definitions of terms
Natural Increase

Total births minus total deaths.
Net International Migration

Total immigrants minus total emigrants

Implications for the U.S. Health Care System

Care for older patients tends to be more complex

The aging population will challenge the U.S. health care system, payers, and families, as health care needs of older Americans tend to be more severe and complex.

The following chart displays estimated rates of certain chronic conditions among people age 65 and older in the year 2030.

Projected minimum prevalence of conditions among population age 65+ in 2030
These high-need patients are often older, have clinically complex conditions, cognitive or physical limitations, and/or behavioral health problems.

Among surveyed, high-need patients:

- 48% had been hospitalized overnight in the last two years
- **47%** had gone to the emergency department multiple times during the same time frame


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Less than one-third of Americans age 50 and older have saved for long-term care.


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**Certain factors may complicate the care of older patients**

An issue brief released by the American Hospital Association (AHA) identified a variety of factors that may complicate caring for older adults:
The brief also outlines societal and emotional experiences that may impact older adults:

- Changes in **self-identity** and **role** in society
- **Loneliness** and social **isolation**
- Reduced **mobility**
- Loss of **independence**
- Resource **limitations** including **food** and **financial insecurity**
An aging population increases demand for health care services

A 2018 report released by the Association of American Medical Colleges (AAMC) projected a significant physician shortage by 2030:

- Primary care: shortage of **14,800 - 49,300** physicians
- Non-primary care specialties: shortage of **33,800 - 72,700** physicians

A status quo supply projection indicated that the **total physician supply** would **increase 7%** from 791,400 in 2016 to 846,600 in 2030, while the United States **population** is projected to **grow by 11%** over that span. This would contribute to a **3% decline in the physician-to-population ratio**, while demand is expected to increase due to population growth and aging.


Demand for geriatricians is outpacing supply
Instructions: Click Start and use the arrows to learn about demand for geriatricians in the United States
The increasing number of older Americans will lead to an increased need for geriatric care.
30% of people age 65 and older need care from a geriatrician.

This equates to approximately 15 million Americans.
Each geriatrician can care for up to 700 patients.

According to the American Geriatrics Society
21,000 geriatricians would be required to provide adequate care.

According to the AAMC 2018 Physician Specialty Data Report, there were 5,598 total active physicians in Geriatric Medicine in 2017, with 4,733 providing patient care.


A study published in Gerontology and Geriatric Medicine found that between the academic years 2001–2002 and 2017–2018, total **graduate medical education** (GME) **programs increased 37.8%**. During that period, the **Geriatrics specialty**, including Hospice/Palliative Care, **grew 64.6%**. Actual and **population-adjusted program growth**, however, was observed in only **two geriatric subspecialties**, Hospice/Palliative Care and Geriatric (Family).
When Hospice/Palliative Care was not included, the Geriatric specialty declined in actual and population-adjusted filled positions, with a decrease of 23.3%.

Additionally, in the 2018 appointment year, only 25.2% geriatric fellowship programs were filled, while only 45.5% positions those fellowships offered to residents were filled.

Geriatricians face a significant financial disadvantage when compared to other specialties, which likely discourages some trainees from pursuing geriatric care. The median annual salary for geriatricians ($189,879 according to Salary.com, as reported by Modern Healthcare) is less than half of that of an average orthopedic surgeon or cardiologist. Not only must geriatricians complete a fellowship and certification in geriatric medicine, but the care they provide tends to be time intensive due to the general complexity of the patient population and the frequent need for routine follow-up care. Additionally, most of their patients will be enrolled in Medicare, and reimbursement will be lower than for patients with private insurance.


### Moving toward age-friendly health systems

The John A. Hartford Foundation and the Institute of Healthcare Improvement have partnered with the AHA and the Catholic Health Association of the United States on the Age-Friendly Health Systems initiative.

The initiative aims to develop an age-friendly health systems framework and spread it to 20% of hospitals and health systems in the United States by 2020.
Health Affairs outlines characteristics of age-friendly health systems as defined by the John A. Hartford Foundation:

- **Commitment by leadership** to address ageism
- **Clinical staff** specifically trained and **expert in the care of older adults**
- High-performing care teams that can show **measurable results** for care of older adults
- Systematic approach to **coordinate care** with external organizations
- Strategy to **identify, support and coordinate** with family caregivers
- Clear process to **elicit patient goals and preferences**
- Define a **concordant plan of care**

The initiative outlines a new model of care called the 4M model:

<table>
<thead>
<tr>
<th>What Matters</th>
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<td>Understand and act on older adults’ specific health outcome goals and preferences for care.</td>
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<table>
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<tr>
<th>Medications</th>
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<tr>
<td>When necessary, use age-friendly medications that do not interfere with what matters, mentation and mobility.</td>
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Five health systems in the United States have begun testing a prototype of the age-friendly care model in hospitals, long-term care, ambulatory and post-acute settings:

- Anne Arundel Medical Center (Annapolis, MD)
- Ascension (Edmunson, MO)
- Kaiser Permanente (Oakland, CA)
- Providence St. Joseph Health (Renton, WA)
- Trinity Health (Livonia, MI)


**Mentation**

Identify and manage mental health conditions including depression, dementia and delirium across care settings.

**Mobility**

Ensure that older adults at home and across care settings move safely every day to maintain function and do what matters.

Instructions: Click each plus sign to reveal predicted impacts of the aging U.S. population on patients, physicians and medical trainees.
While the birth rate in the United States will fluctuate, the total fertility rate as defined by the CDC will remain below replacement rate.
Care models that engage the unique capabilities of family members, community health workers and non-physician providers will emerge, aimed at alleviating the effects of physician shortages.
Solutions that facilitate care for older patients, such as telemedicine, remote patient monitoring and ride-sharing, will become increasingly essential.
Efforts will be made to encourage the pursuit of geriatric specialties and to encourage all health care providers to become better educated in providing care for older patients. However, unless addressed, financial barriers will continue to discourage physicians in training from pursuing geriatric medicine.
Value-based payment models will encourage coordination across care settings and prove more capable than fee-for-service models of adequately compensating geriatricians for their enhanced expertise.
Greater emphasis will be placed on minimum geriatric competencies for physicians, starting in medical school and throughout their careers.

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Knowledge Check
Question
01/03

By 2035, for the first time in United States history, people age 65 and older will:

Instructions: Select the correct response then click Submit

- Outnumber children under the age of 18
- Begin to decline in number
- Be outnumbered by people age 85 and older
Beginning in 2030, ________________ is expected to overtake _________________ as the primary driver of population growth in the United States.

Instructions: Select the correct response then click Submit

- Natural increase; net international migration
- Net international migration; natural increase
Approximately 21,000 geriatricians would be required to provide adequate care in the United States. As of 2018, how many geriatricians were active according to the AAMC?

Instructions: Select the correct response then click Submit

- 25,212
- 10,998
- 5,598
Lesson 6 of 7

CME Credit

Want to earn CME credit for this activity?

Return to the AMA Ed Hub activity and click the Take Quiz tab to proceed.
Lesson 7 of 7

Additional Resources

Transcript

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