

The Aging of the Population: Impacts on the Health Workforce

Presentation to the Advisory Committee on Interdisciplinary Community-Based Linkages

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The Center for Health Workforce Studies at the University at Albany

- Conducts studies of the supply, demand, use and education of the health workforce
- Committed to collecting and analyzing data to understand workforce dynamics and trends
- Goal to inform public policies, the health and education sectors and the public
- One of six regional centers with a cooperative agreement with HRSA/Bureau of Health Professions



Overview of Presentation

- Health workforce issues and concerns
- Implications of the aging of America on the health workforce
- Strategies to assure an adequately prepared health workforce for the future

THE HEALTH WORKFORCE:

BACKGROUND

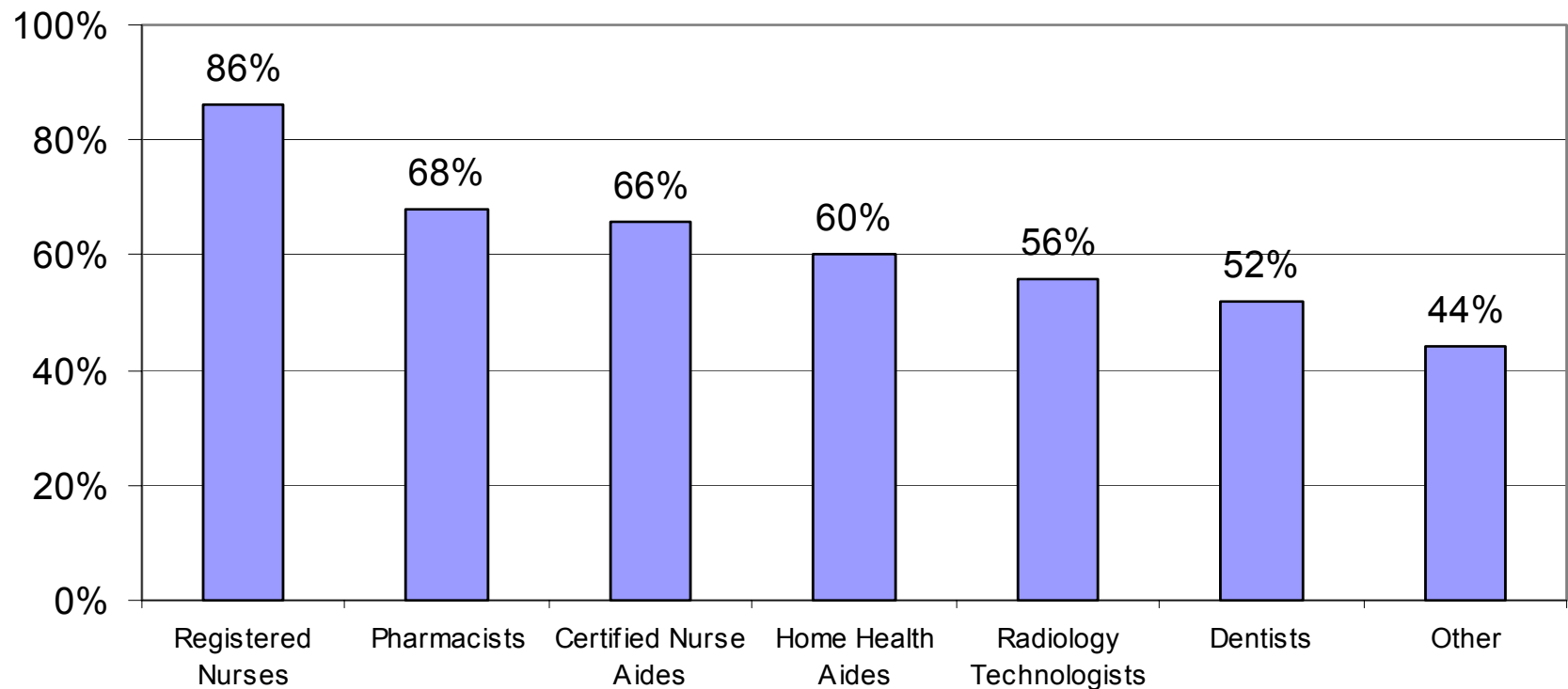


Current Health Workforce Issues

- Health worker shortages
- The squeeze---few new dollars and the high cost of more workers---limit response options
- Concerns with medical errors and quality
- Worker and management dissatisfaction
- Frustration with paperwork and regulation
- Racial and ethnic imbalances in professions
- Lack of systematic data on supply and demand for health workers



Percent of States Indicating a Shortage in Selected Health Professions, 2002



Source: Center for Health Workforce Studies, 2002



Many Health Professions Lack Diversity

Race/ethnicity, 2000

	Non-Hispanic white	Non-Hispanic Black	American Indian	Asian & Pacific Islander	Hispanic
Dental hygienists	96%	2%	0%	0%	2%
Dentists	86%	3%	0%	9%	2%
Dietitians	71%	19%	0%	5%	5%
Occupational therapists	88%	3%	0%	3%	6%
Radiologic technicians	80%	11%	0%	1%	8%
Registered nurses	87%	5%	1%	4%	2%
Respiratory therapists	80%	12%	0%	3%	5%
Social workers	66%	23%	1%	2%	9%
Speech therapists	94%	4%	0%	0%	2%
Pharmacists	80%	3%	0%	13%	4%

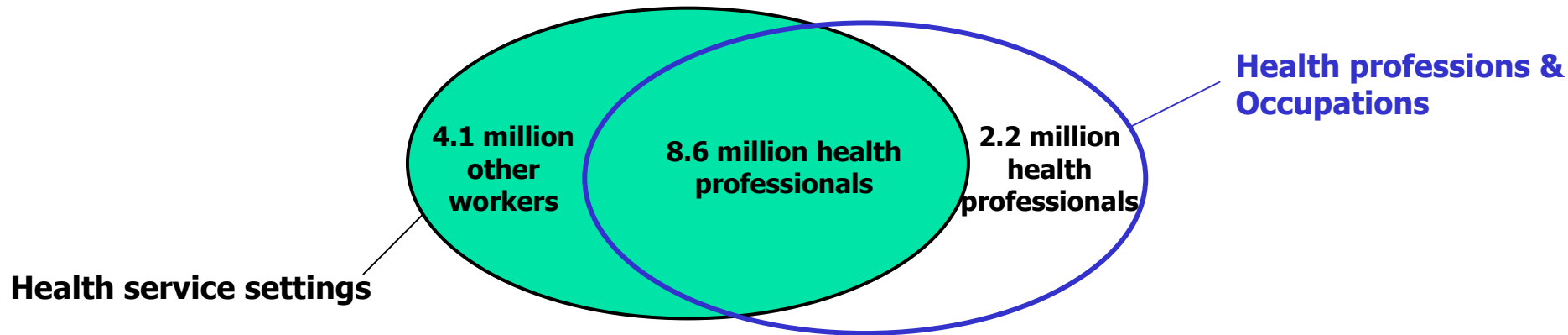
Sources: Bureau of Labor Statistics, Census Bureau. Current Population Survey - Basic Monthly, 2000; Census Bureau, U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1980 to 1999; National Sample Survey of RNs



The Health Workforce: The Basic Premise

- A health care system is only as good as its workforce
- The workforce directly impacts on:
 - Quality
 - Cost
 - Access

More Than 1 in 10 Americans in the US Works in Health Care or is a Health Professional



Health professionals working in health service settings	8,642,749	6.1%
Health professionals working in other settings	2,167,418	1.5%
Other workers in health service settings	4,098,498	2.9%
US health workforce	14,908,665	10.5%
US civilian labor force	141,558,183	100.0%

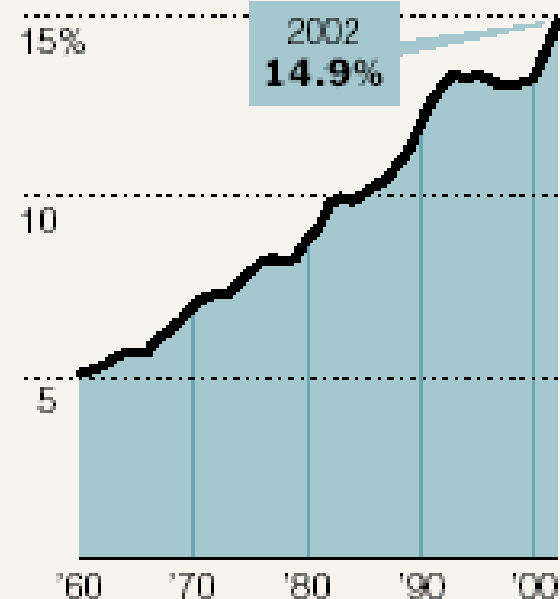
Health care spending accounts for nearly 15 percent of the nation's economy

On January 9, 2004, the NY Times reported:

The Department of Health and Human Services said that health care spending shot up 9.3 percent in 2002, the largest increase in 11 years, to a total of \$1.55 trillion. That represents an average of \$5,440 for each person in the United States.

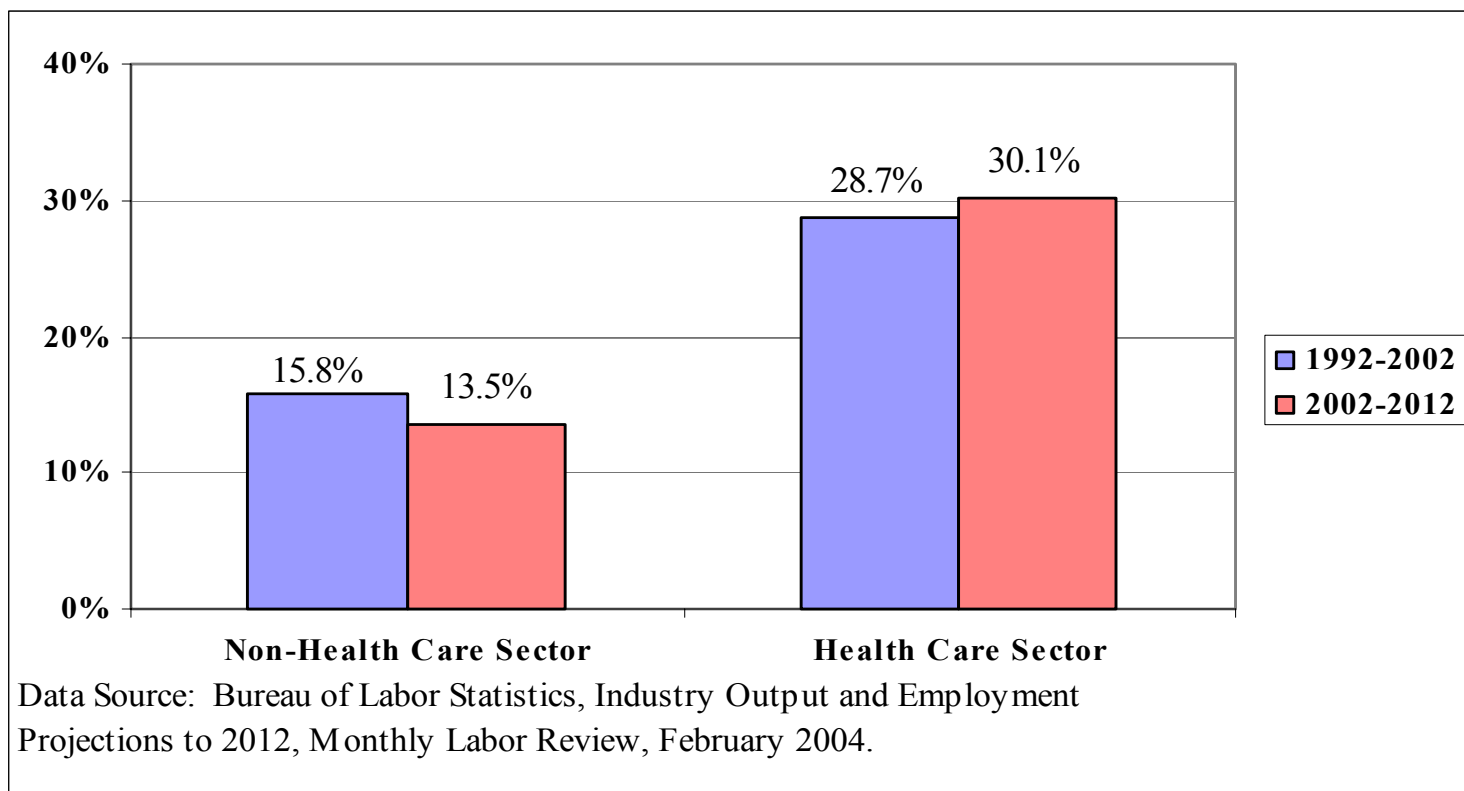
Hospital care and prescription drugs accounted for much of the overall increase, which outstripped the growth in the economy for the fourth year in a row.

National health spending as a share of G.D.P.



Source: Department of Health and Human Services

Health Sector Employment Continues to Be the Fastest Growing Employment Sector in the Country





Between 2002 to 2012, half of the fastest growing occupations in the US are projected to be health occupations

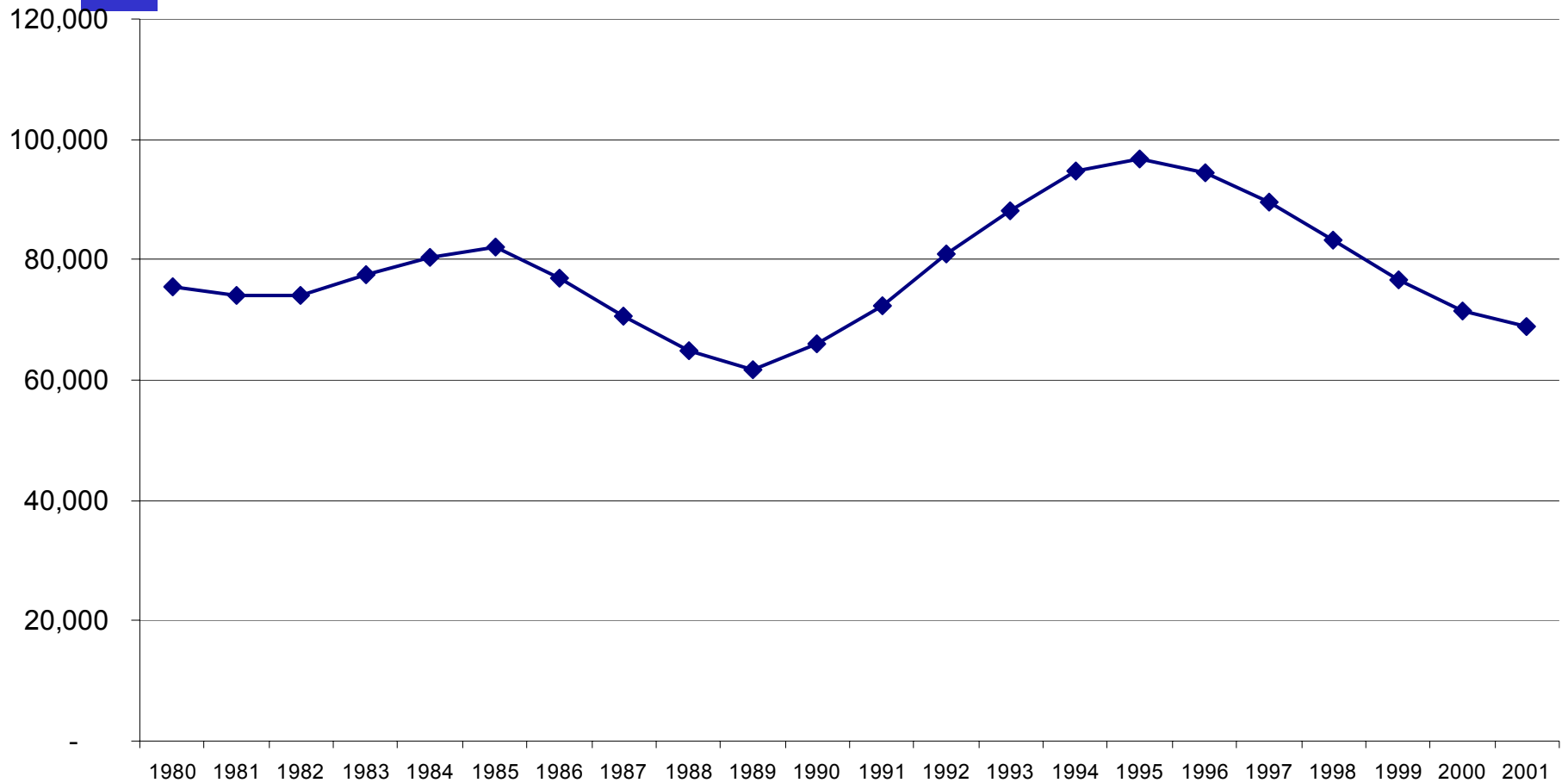
- **Medical assistants (59%)**
- **Physician assistants (49%)**
- **Home health aides (48%)**
- **Medical records and health information technicians (47%)**
- **Physical therapy assistants (45%)**
- **Dental hygienists (43%)**
- **Dental assistants (42%)**
- **Occupational therapy assistants (39%)**
- **Physical therapists (35%)**
- **Occupational therapists (35%)**
- **Respiratory therapists (35%)**



Factors Contributing to Health Workforce Shortages

- Short term factors
 - Competition for workers and the economy
 - Growing demand
 - Increased intensity and complexity of services
 - Educational system cycles and response lags

Trends in RN Graduations in U.S., 1980 to 2001





Factors Contributing to Health Workforce Shortages, continued

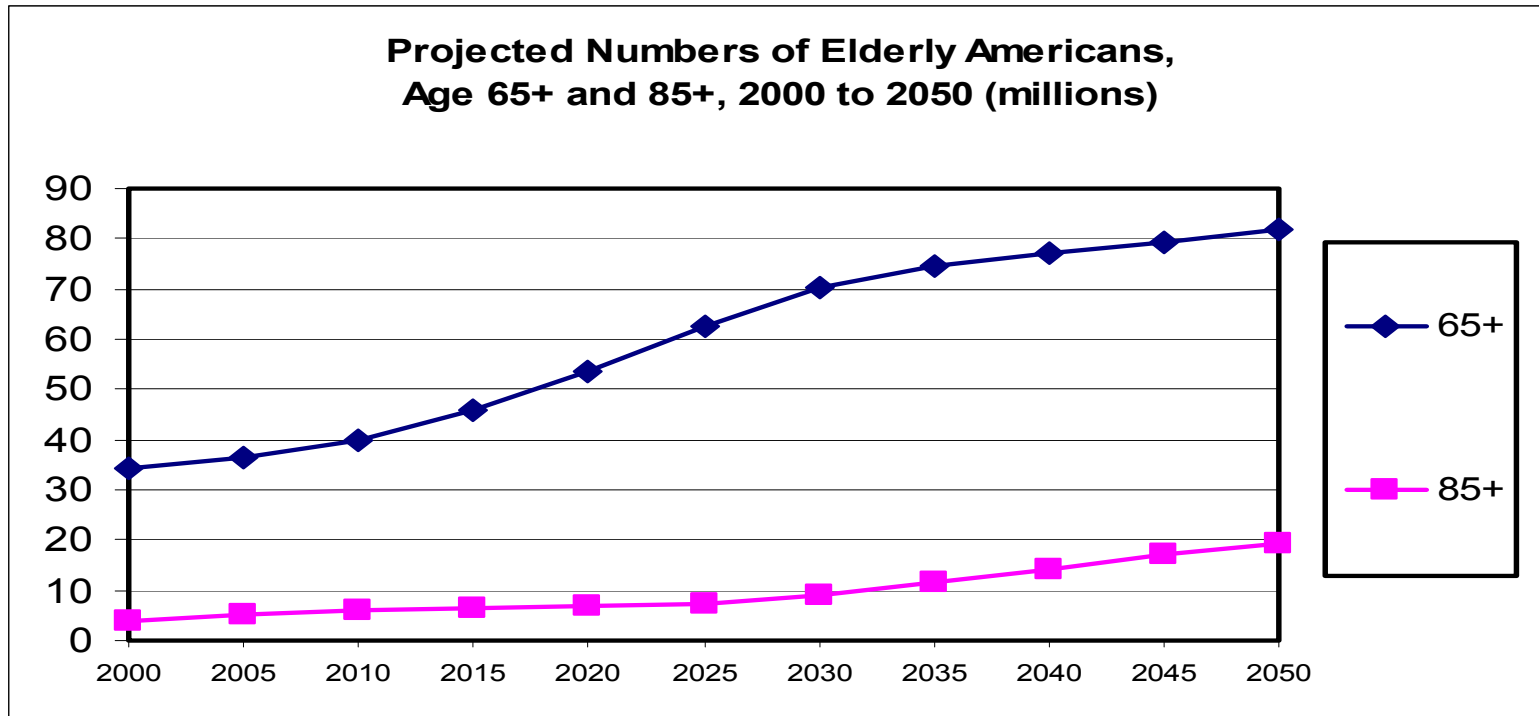
■ Long term factors

- Changing racial/ethnic mix in the US
- Expanded career choices for women
- The economy and public expectations
- Increases in credential requirements
- The aging of America: increase in demand
- The aging of America: decrease in supply of workers

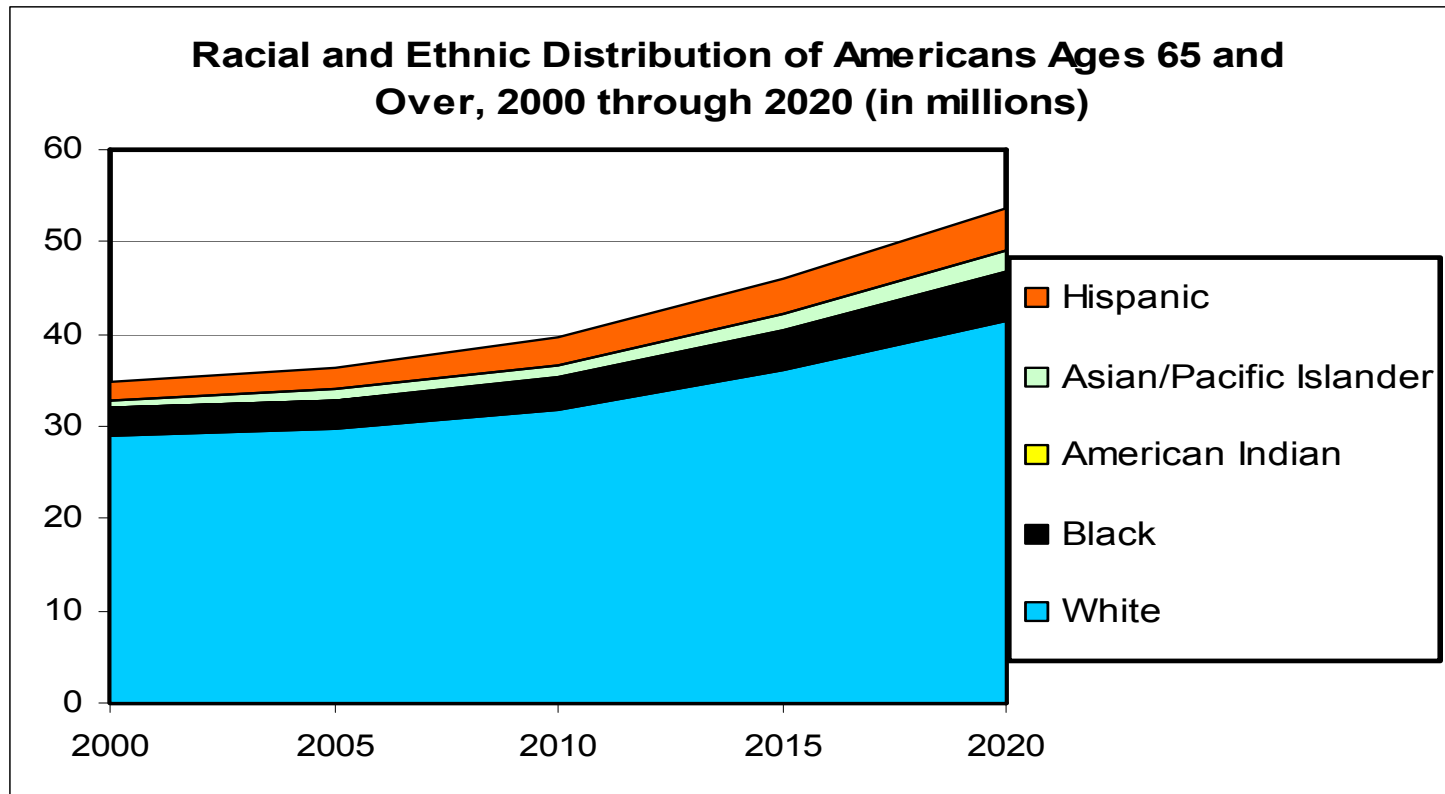
*The Aging of America
and
Demand for Health Services*

The Elderly Population in the US Will Grow Dramatically Over the Next 50 Years

Baby Boomers begin to turn 65 in 2011.



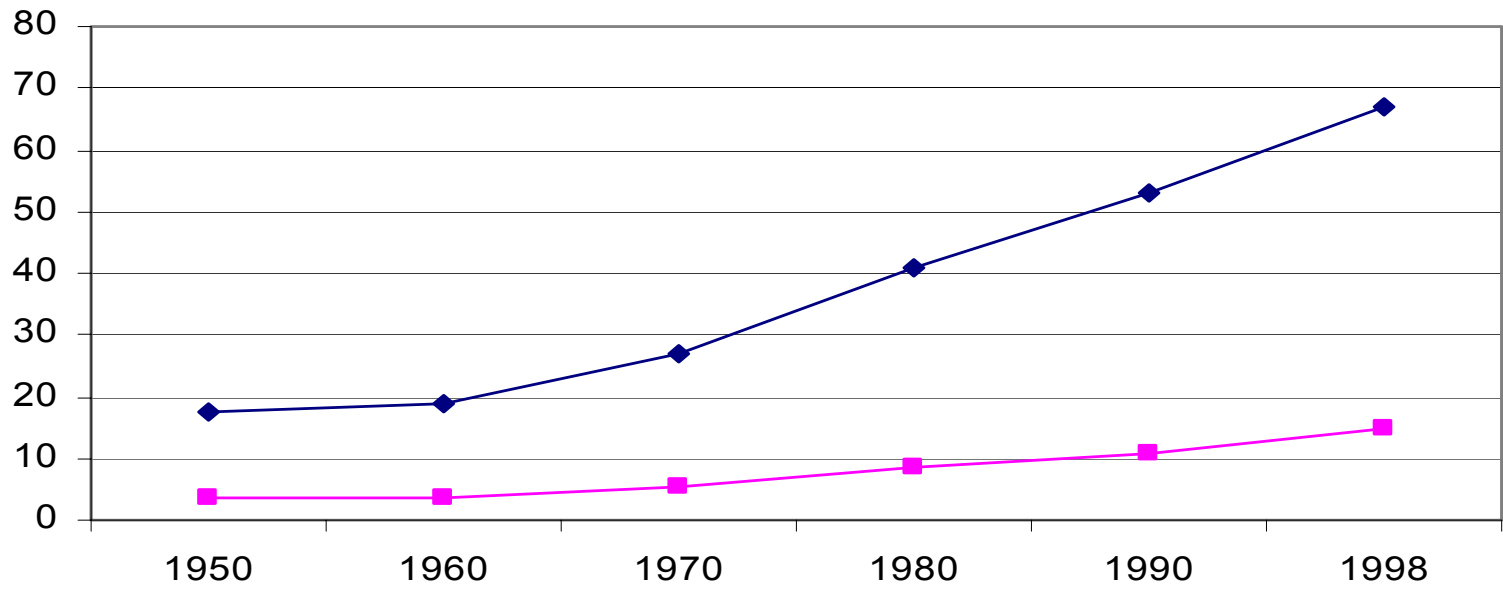
The Elderly Population in the US Will Grow Increasingly Diverse Over the Next 20 Years



The Elderly Are Better Educated Than in the Past

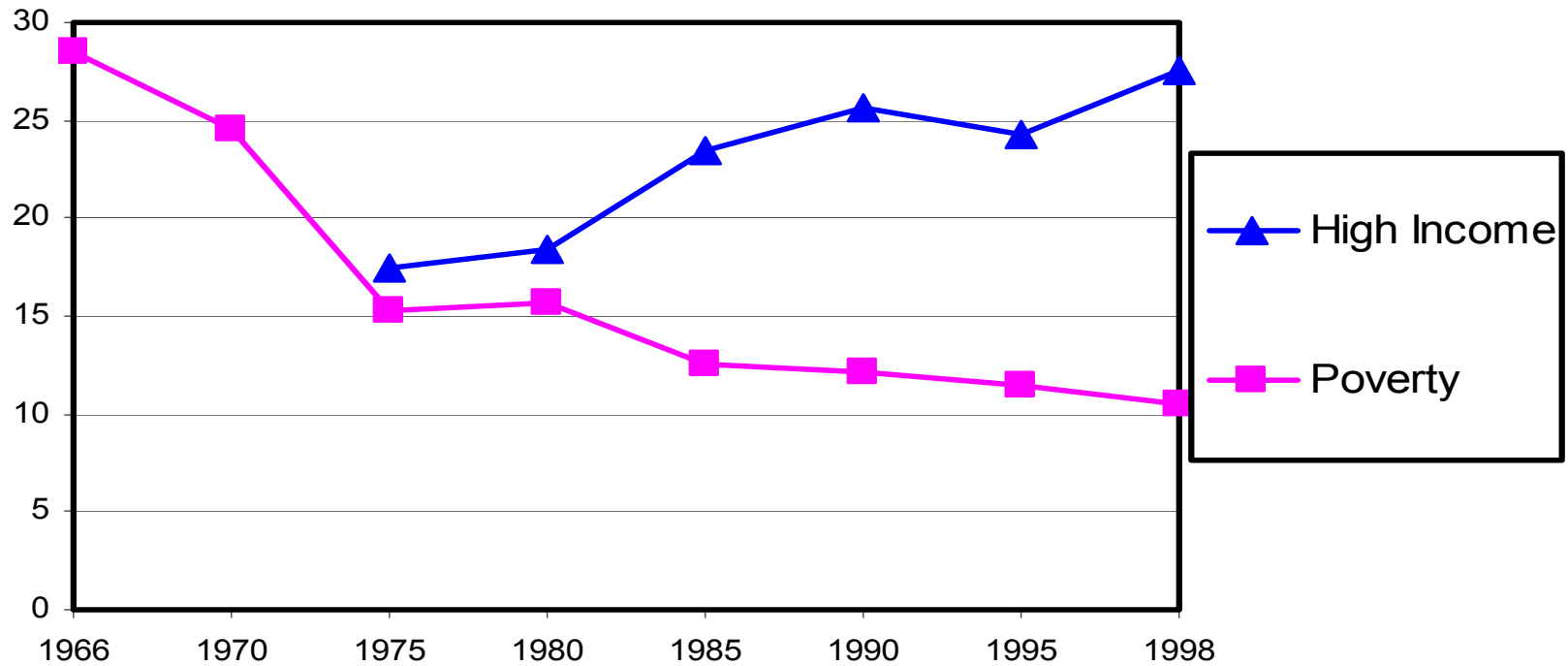
Percentage of the Population Age 65 and Older with High School Diploma and Bachelor's Degree or Higher, 1950 to 1998


—◆— High School Completion —■— College Completion (4 year)



The Elderly Are Less Likely to be Poor Than in the Past

Percent of Americans Age 65 and Older Living in Poverty or With High Income





Access to Care Will Be a Greater Issue for the Elderly

- There will be a greater need for transportation to health care services
- The elderly are more likely to live in rural areas (24% compared to 19% for the US as a whole)
- Elderly nursing home residents can only see providers who serve the facility



The Growing Elderly Population Will Have a Small Pool of Potential Family Caregivers

- Compared to the current elderly, the growing cohort of aging Americans:
 - have had fewer children than their parents
 - are more likely to be divorced
 - are more likely to live alone as they enter old age.



The Elderly Consume More Health Care Services Than Younger Age Groups

- In 2001, people over 65 were hospitalized nearly 3 times as often and stayed almost 4 times longer than people under 65.
- In 2000, people over 65 averaged 7 physician visits per year, compared to 3 visits for those under age 65.
- In 1999, people over 65 averaged 20.6 prescriptions per year, compared with fewer than 6 for the under-65 population.

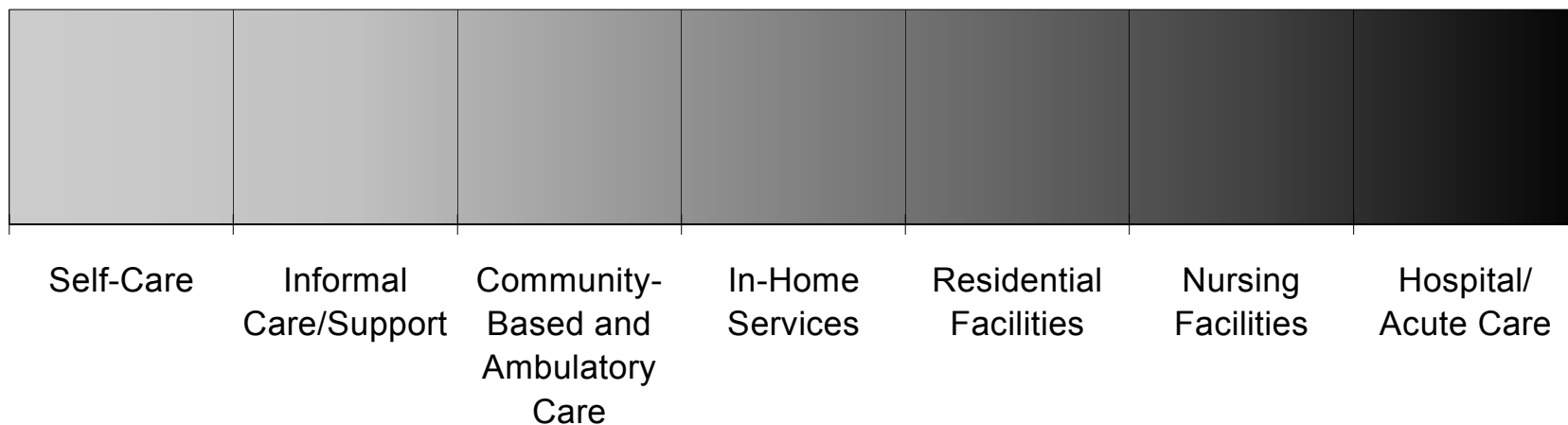


The Elderly Have Different Health Care Needs Than Younger Age Groups

- **The elderly are more likely to suffer from chronic illnesses (e.g., cancer, heart disease, diabetes)**
- **The elderly are more likely to require the services of health professionals as a result of injuries and illnesses due to greater physical vulnerability**
- **The elderly have more limitations in performing activities of daily living than younger people, due to greater rates of physical and cognitive disability.**

Elderly Health Care Consumers Will Have a Greater Range of Health Care Models to Choose from Than in the Past

**Figure 1. Models of Care for the Elderly
(Ranging from Least to Most Intensive)**



*The Health Professions:
Will We Have Who We Need to
Care for the Elderly?*



The Aging Report Studied a Wide Array of Health Professions/Occupations

- **Physicians**
- **PAs and NPs**
- **Nursing**
- **Oral Health Providers**
- **Chiropractors**
- **Podiatrists**
- **Therapy Professions**
- **Pharmacists**
- **Registered Dietitians**
- **Clinical Psychologists**
- **Social Workers**
- **Nursing Home Administrators**
- **Optometrists**



The Profession-Specific Areas of Study Included:

- Services to the Elderly
- Profile of the Current Workforce
- Training, Education, Credentials Related to Aging
- Supply Trends/Demand Projections & Gap
- Profession-Specific Issues

Profession-Specific Findings

Pharmacists

Physician Assistants

Oral Health Providers

Social Workers

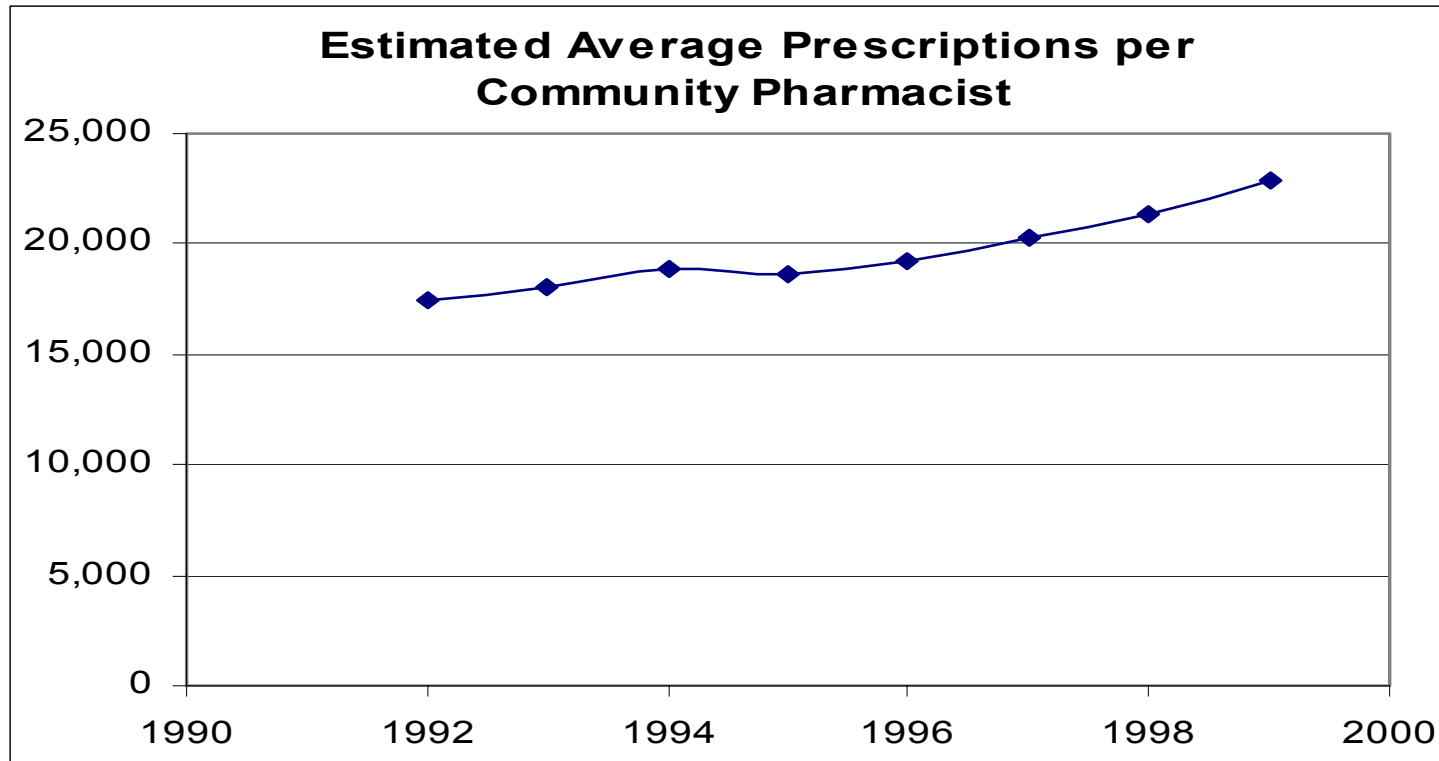
Registered Dietitians



Pharmacists

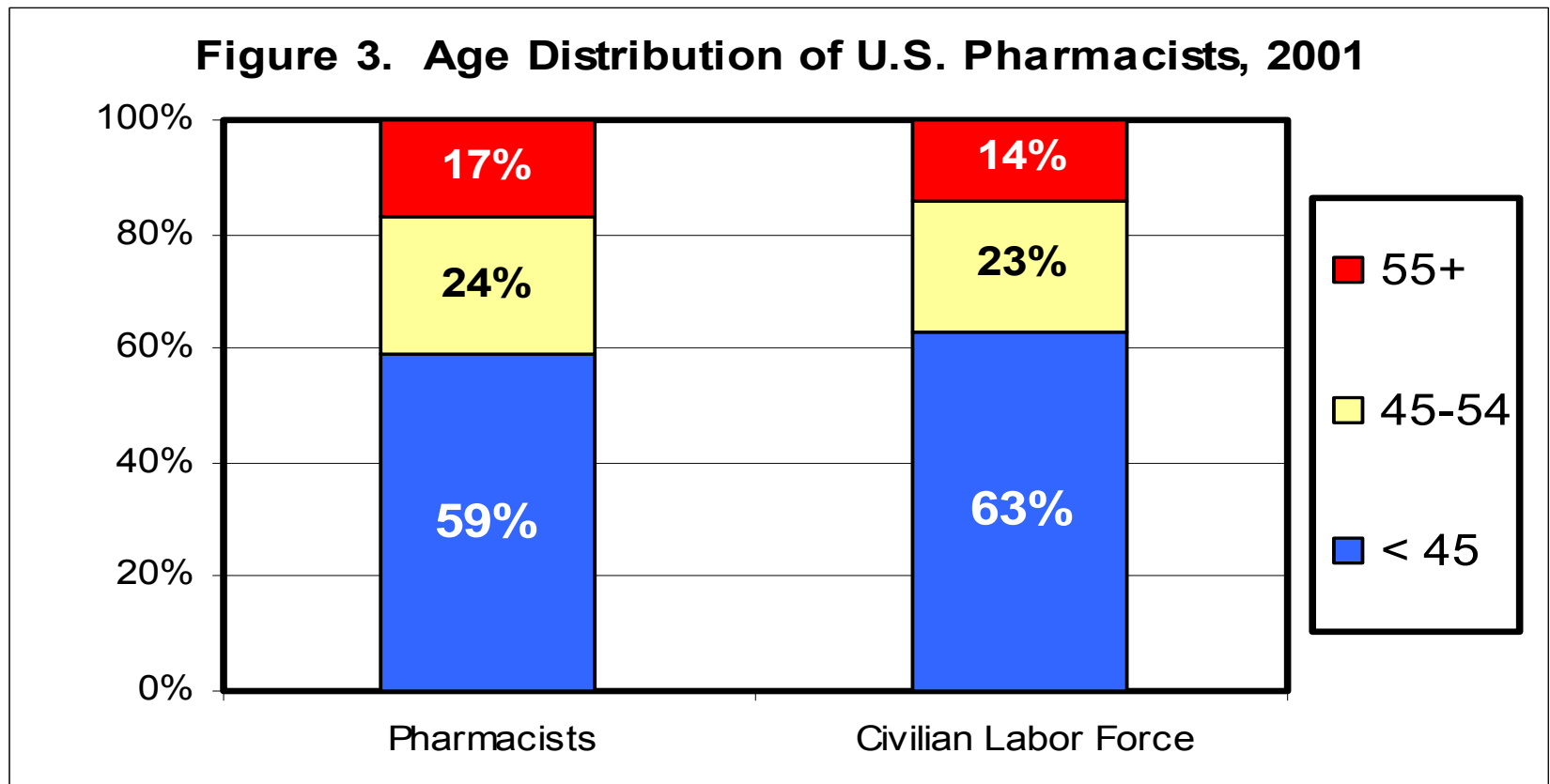
- The majority of pharmacists work in drug stores or other retail stores (62%) or hospitals (21%)
- In 1999, the elderly, who represented 12% of the U.S. population, used 34% of the prescriptions in the U.S.
- Pharmacists are an important provider of care to the elderly because of the need for medication management.
- Fewer than 1% of pharmacists hold a certification in geriatric pharmacy.

From 1992 to 1999, the Number of Prescriptions Filled by Community Pharmacists Rose 31%

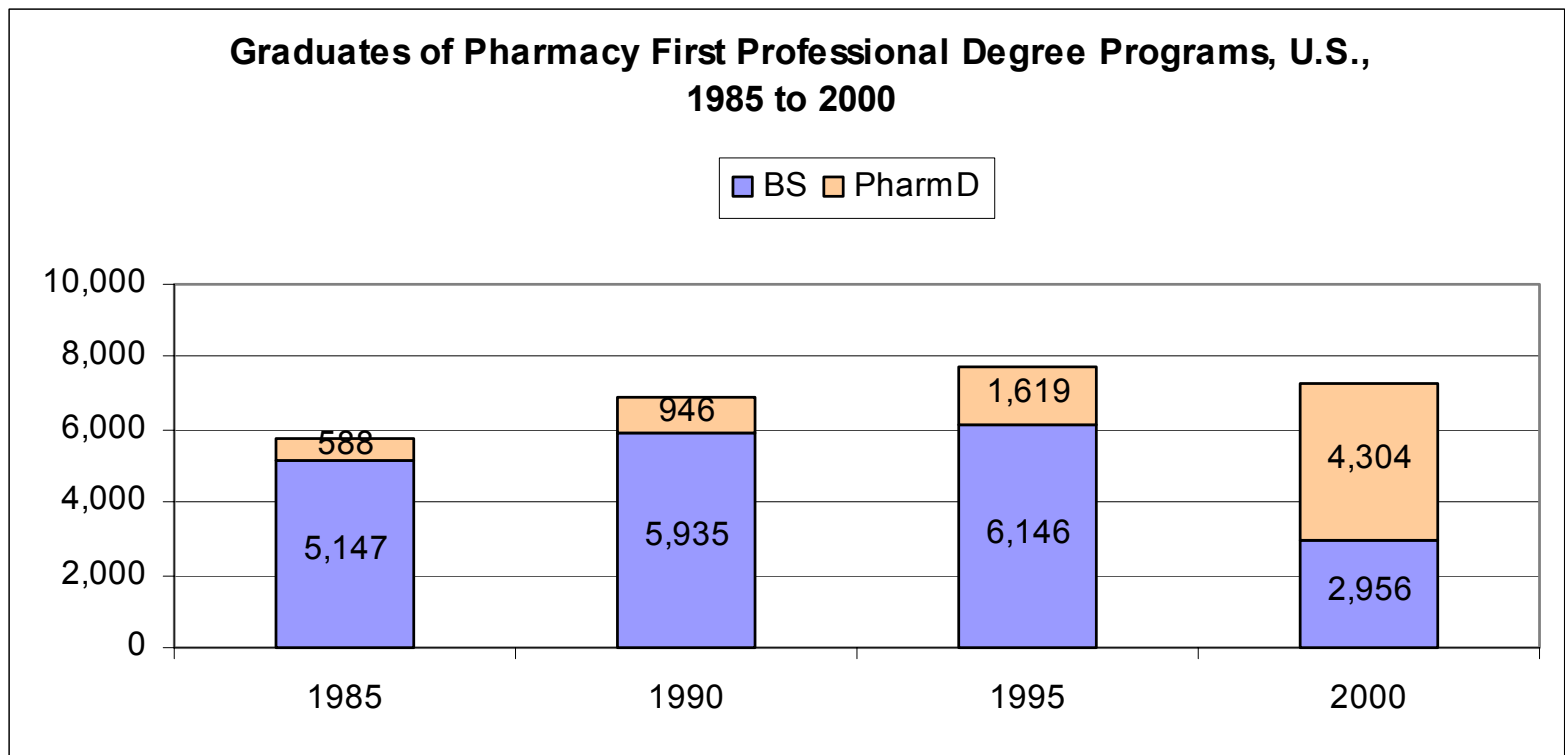


Source: HRSA, 2000

Pharmacists Are Older Than the Overall Civilian Labor Force



The Number of New Pharmacist Graduates Declined Between 1995 and 2000



Source: AACP



Pharmacist Training Issues

- The BS in Pharmacy has been gradually replaced by the Doctor of Pharmacy as the entry level degree for pharmacists
- Most pharmacy programs include geriatric pharmacotherapy in their general curriculum
- About 25% of pharmacist education programs offer a specialization in geriatrics
- Only about 2% of new pharmacists complete a residency in geriatric care



The Demand for Pharmacists Is Expected to Increase in the Coming Decade

- BLS projects 24% growth in total pharmacist positions between 2000 and 2010
- Over that time, there will be 53,000 new job openings
- In addition, there will be 65,000 job openings to replace pharmacists leaving the field



Will the Supply of Pharmacists Meet Future Demand for Them?

- Since 2000, pharmacy school enrollments have risen, but that may not be sufficient to meet future demand
- A shortage of pharmacists would substantially affect the elderly, given their higher prescription drug use and their need for medication management
- Currently, there are only 700 certified geriatric pharmacists to serve the elderly population in the country



Factors That Will Affect the Adequacy of Supply to Meet Demand for Pharmacists

- **Availability of new drug therapies**
- **Aggressive marketing of prescription drugs**
- **Integration of pharmacists into care teams for the elderly**
- **Technology**
- **Pharmacist helper occupations**
- **Medicare prescription drug benefit**



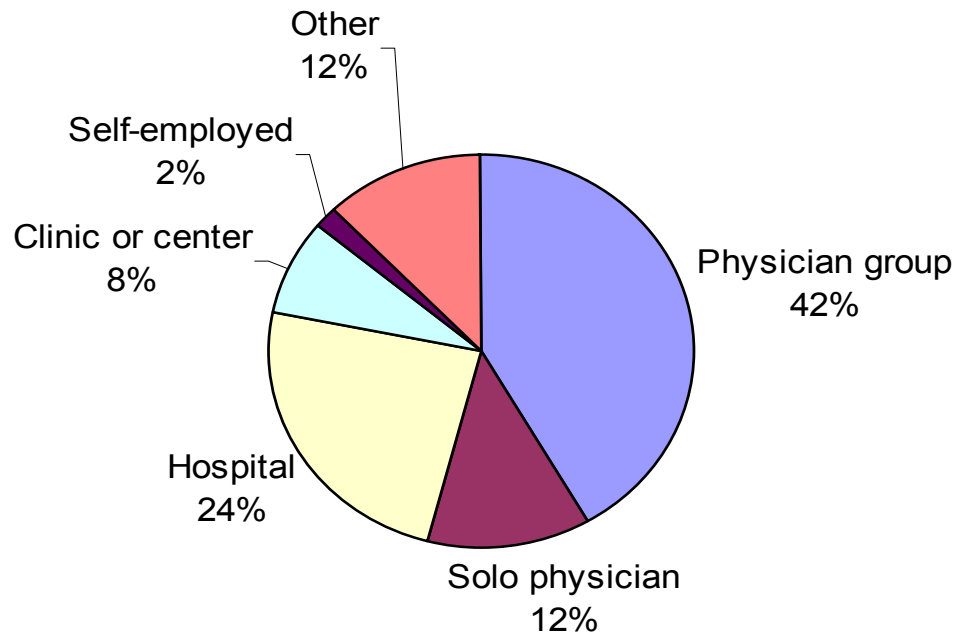
Physician Assistants (PAs)

- 4 out of 10 PAs work in either general/family practice or internal medicine
- PAs provide primary care in underserved areas
- 12% of office-based visits to PAs were made by people over 65
- Almost 78% of PAs reported seeing at least some patients aged 85 and older
- Only 1% of PAs reported geriatrics as their primary specialty

Source: AAPA

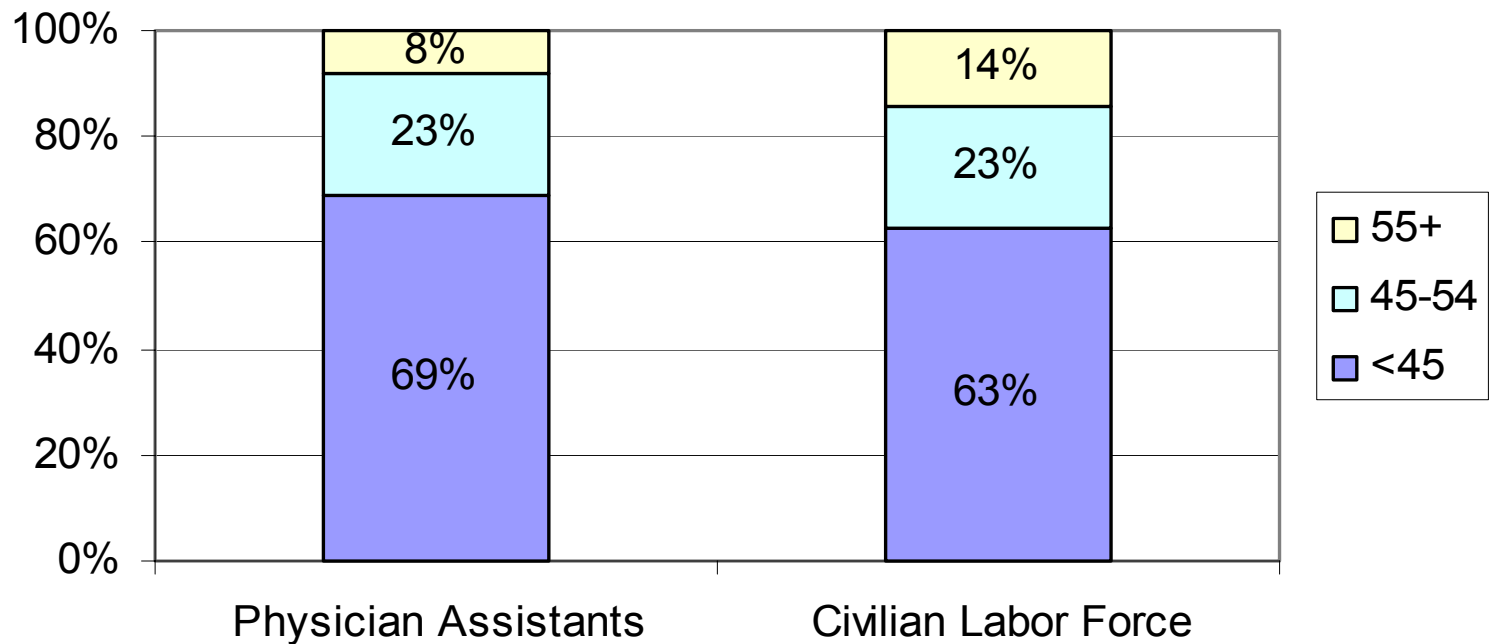
The Majority of PAs Worked in Physician Offices and Clinics in 2001

Distribution of Full-Time Physician Assistants, by Setting (2001)



PAs Are Younger Than the Overall Civilian Labor Force

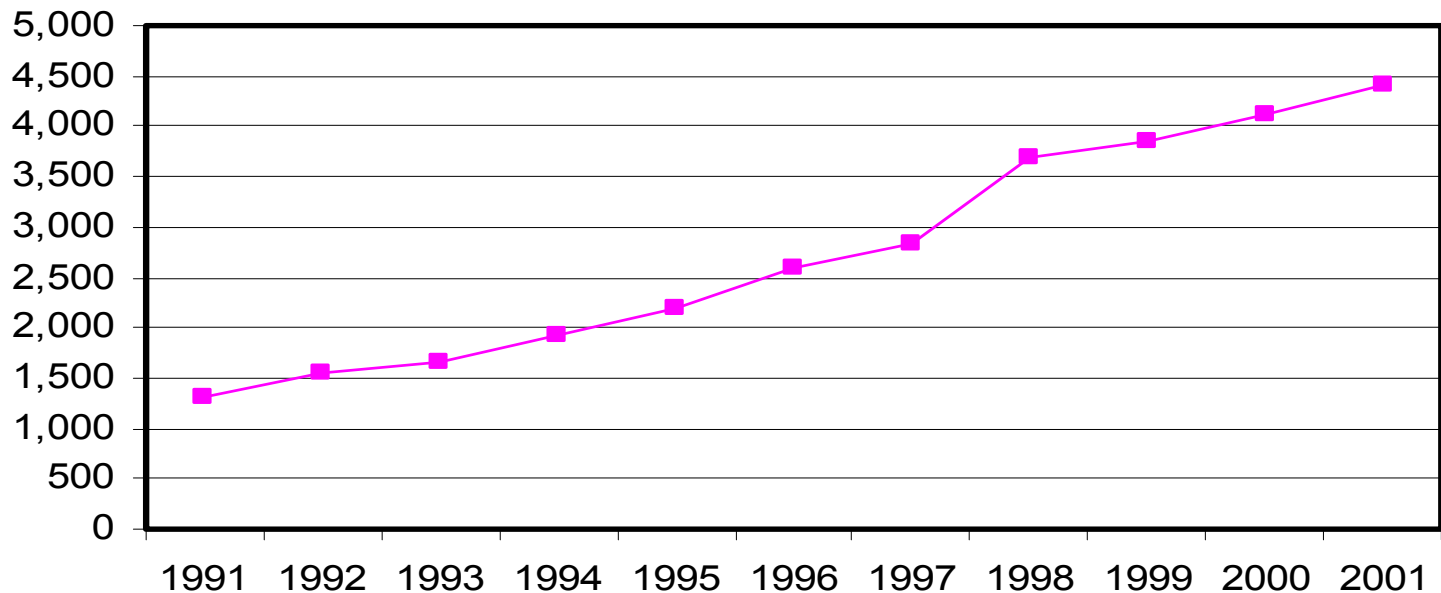
Figure 2. Age Distribution of U.S. Physician Assistants Compared to Civilian Labor Force (2001)





The Number of PA Program Graduates Increased Dramatically Between 1991 and 2001

Graduates of PA Educational Programs, U.S. , 1991 to 2001



Source: AAPA



PA Training Issues

- PAs must complete a two year accredited education program and pass a certifying exam
- Students receive moderate levels of training in geriatric care as part of the formal education process
- Clinical experiences in geriatrics are required
- There is no specific geriatric educational track available



*Between 2002 and 2010, PA Jobs Are
Projected to Grow by 54%*

- BLS projects that total employment of PAs will increase from 58,000 in 2002 to 89,000 by 2010
- About 31,000 of 43,000 projected job openings will result from growth in the field



Will the Supply of PAs Meet the Future Demand for Them?

- While shortages are not anticipated, PAs have yet to meet their full potential in caring for the elderly
- Use of PAs in new models of care could affect demand trajectories:
- PAs could provide more services in long-term care delivery systems, providing primary care and serving as clinical leaders of interdisciplinary teams
- Given the growing number of elderly patients who will be served by PAs, a special education track or post-graduate certificate might be a worthwhile credential to introduce



Oral Health Providers

Three oral health professions provide a variety of important services to elderly Americans and the public at large

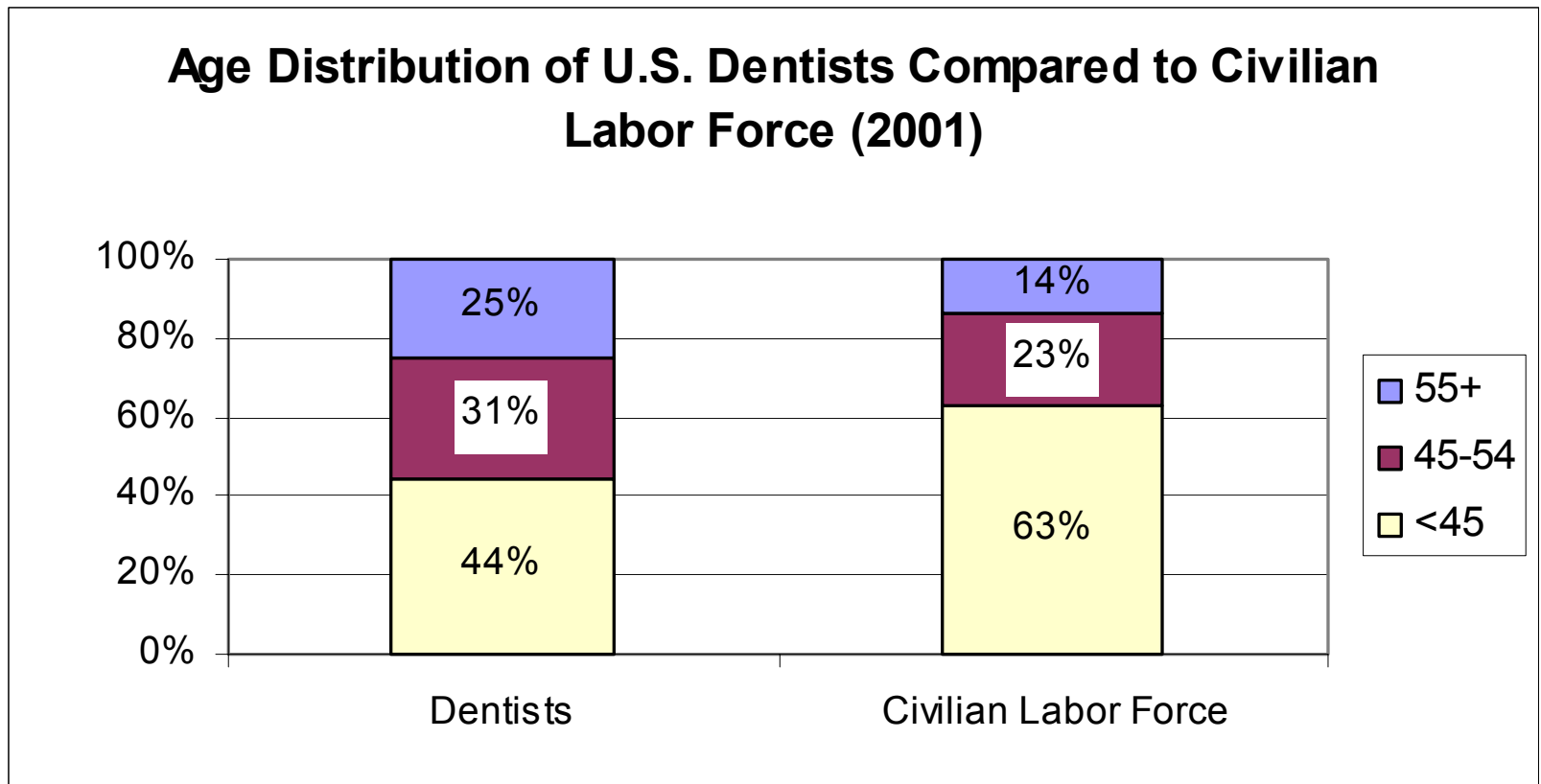
- Dentists diagnose, prevent, and treat teeth and tissue problems and diseases.
- Dental hygienists provide a variety of preventive and restorative services.
- Dental assistants primarily provide instrumental assistance to dentists and dental hygienists.



Oral Health Needs of the Elderly Are Different Than the Needs of Younger Populations

- The elderly are at great risk for dental caries
- About 40% of ambulatory older adults have gingivitis
- As many as 60% may suffer from some level of periodontal disease
- Complete or partial edentulism (tooth loss) remains a serious problem for the elderly
- Over half of oral cancer deaths are among the elderly

Dentists Are Older Than the Overall Civilian Labor Force



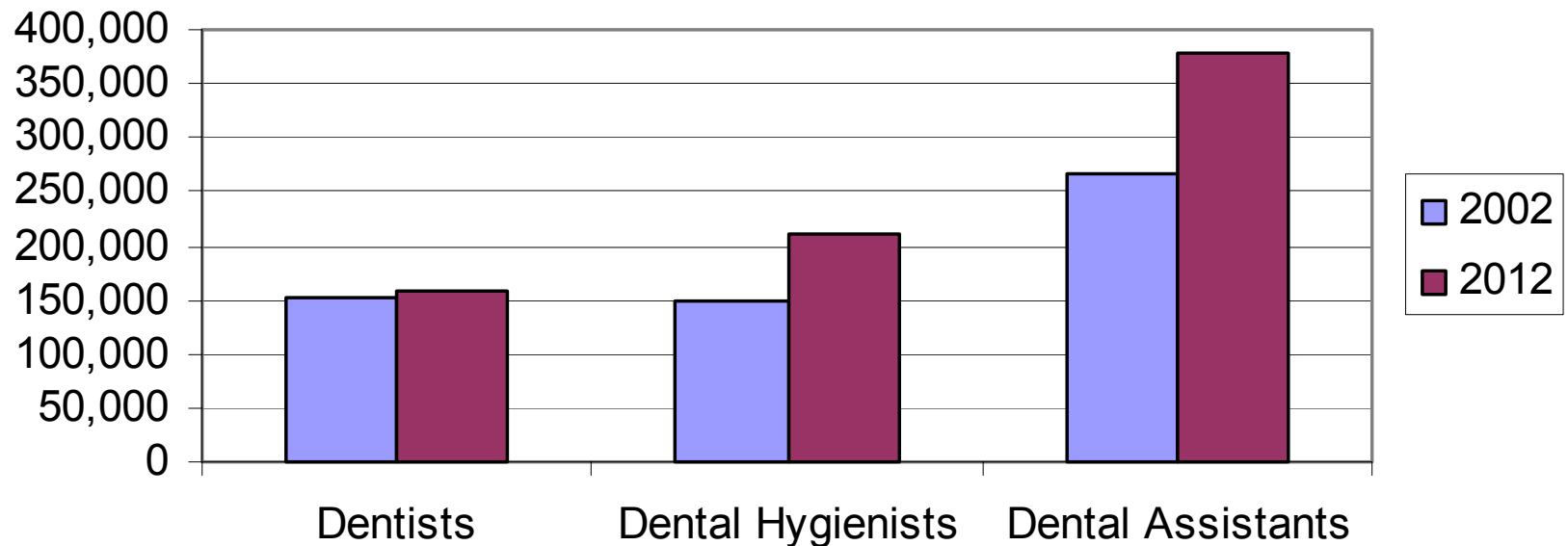


Oral Health Training Issues

- Dental and dental hygiene programs graduates are required to be competent in providing general dental care to geriatric patients
- The credentialing examination for dental hygienists includes case-based items focusing on a geriatric patient
- Some dental schools offer certificate programs in geriatric dentistry, advanced geriatric dentistry fellowships or masters' level training programs

Between 2002 and 2012, Jobs for Dental Hygienists and Assistants Will Increase More than Jobs for Dentists

BLS Employment Projections for Dentists, Dental Hygienists, and Dental Assistants





Will the Supply of Oral Health Providers Meet Future Demand for Them?

- Access to oral health services is a problem for people living in rural areas currently
- There may be a general shortage of dentists in the future
- Expanding scope of practice for dental hygienists may increase access to care, but could result in shortages
- Currently, unmet need for oral health care among the elderly is a greater concern than an inadequate supply of oral health providers.



Factors Affecting Supply and Demand for Oral Health Providers

- Increasing demand for oral health services among the elderly
 - they are more likely to retain their teeth than in the past
- Expanded scope of practice for dental hygienists
- Medicare and Medicaid reimbursement for oral health care



Social Workers

- Professional social workers provide a wide range of health-related services to elderly Americans and their caregivers including:
 - Counseling
 - Psychotherapy
 - Education
 - Care management
 - Promoting activity and independence

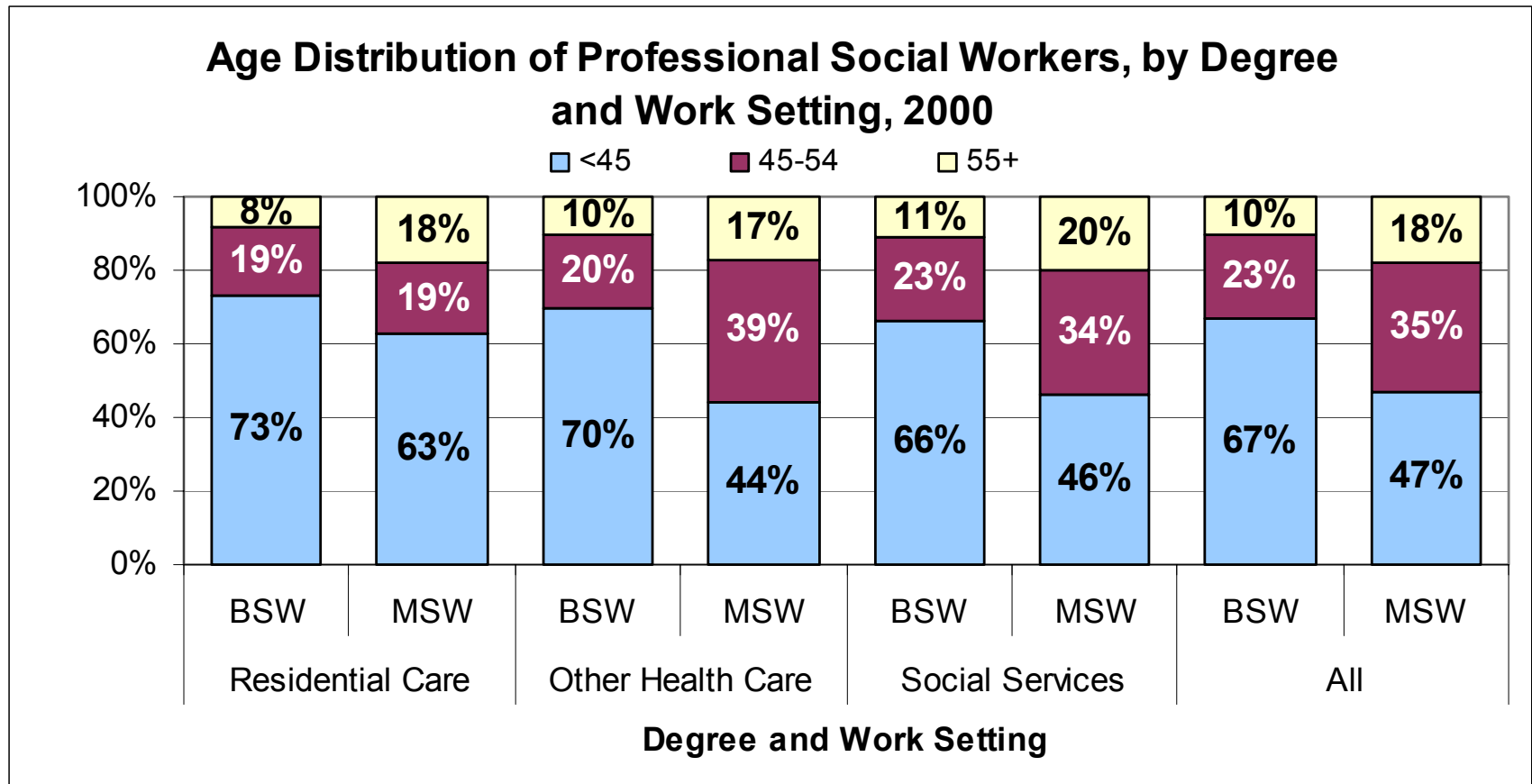


Over 12% of Social Workers Are Employed in Settings that Serve Large Numbers of Elderly

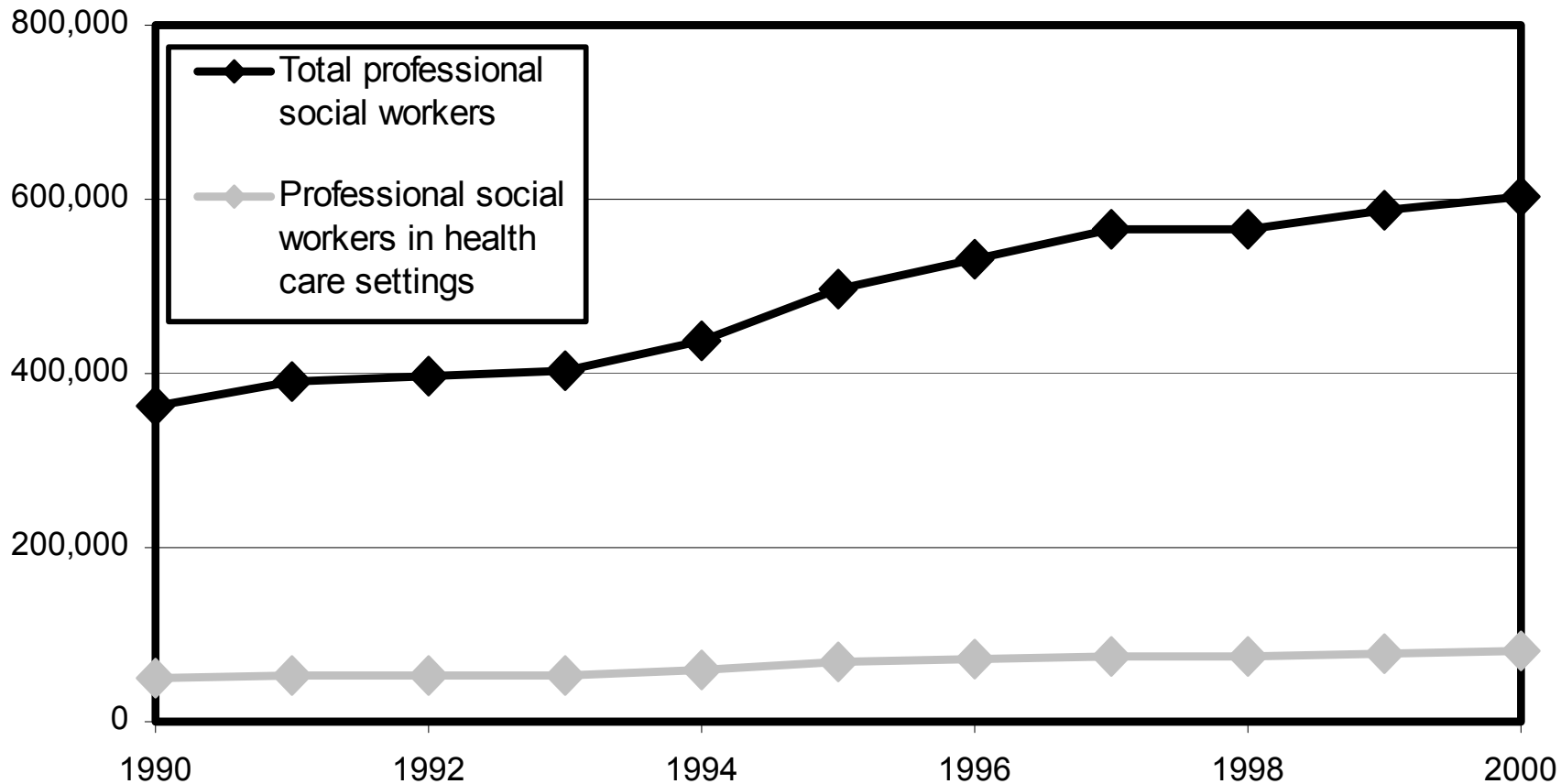
- 8% work in residential care facilities
- 3% work in nursing and personal care facilities
- 1.5% work in home health care services

Note: Of self-reported social workers with at least a bachelor's degree

Social Workers Are Older Than the Overall Civilian Labor Force



Between 1990 and 2000, the Total Number of Social Workers Increased Dramatically



Source: BLS, 2003



Social Worker Training Issues

- There is no standardized aging-related content in the curriculum for social work education programs
- Social workers who work with the elderly generally receive training through continuing education rather than basic educational programs
- In 2000, only 2.4% of social workers specialized in geriatrics



Between 2002 and 2010, BLS Projects Social Worker Job Growth

- Jobs for medical and public health social workers are projected to grow by 29%.
- Jobs for child, family and school social workers are projected to grow by 27%
- Jobs for mental health and substance abuse social workers are projected to grow by 35%.



Will the Supply of Social Workers Meet the Future Demand?

- Currently, there appears to be unmet need for social work services for the elderly.
- The prevalence of chronic disease and depression in the elderly could increase demand for social work services
- Changes in Medicare reimbursement policies could impact demand for social work services
- Given the growing number of elderly they will serve, social workers would benefit from training on the special needs of elderly



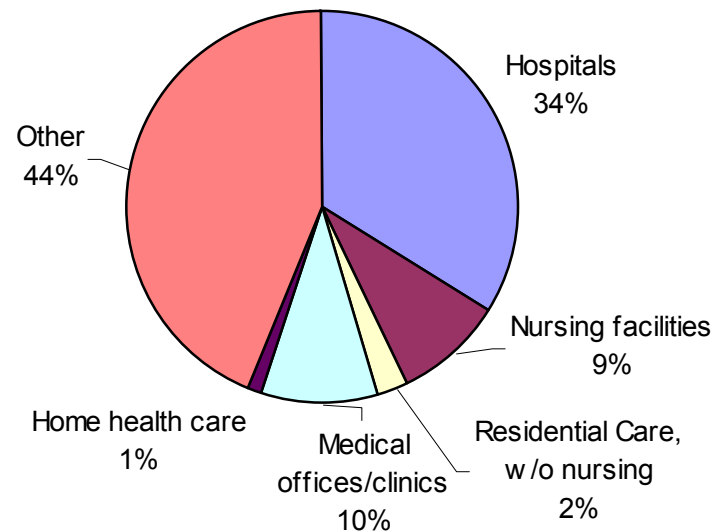
Registered Dietitians (RDs)

RDs provide a number of important services to the elderly, including:

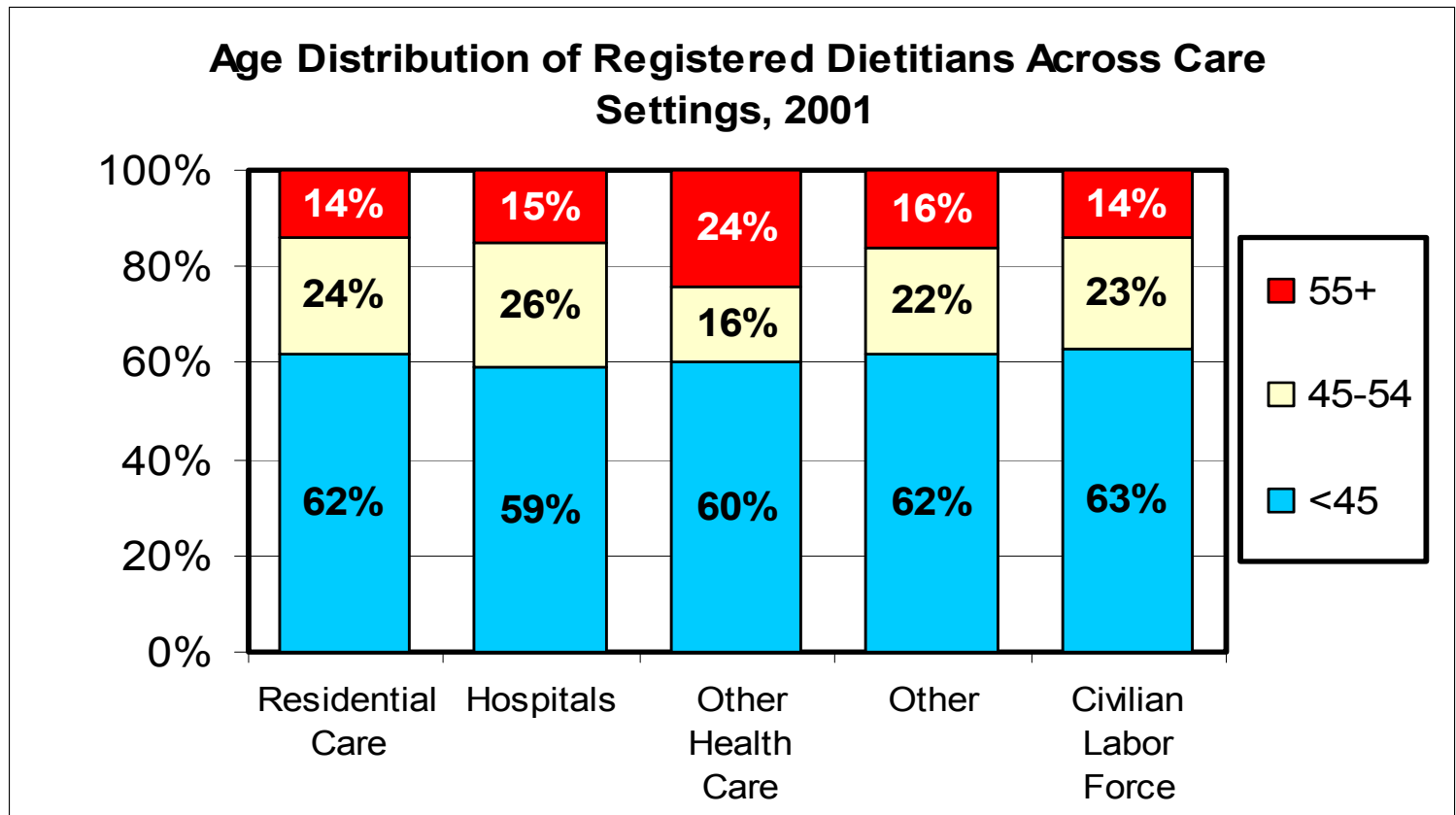
- **Nutritional education and counseling**
- **Planning nutrition for programs for chronically ill elderly**
- **Monitoring dietary intake of elderly patients**
- **Managing food services in hospitals and nursing homes**

Over 40% of Registered Dietitians Worked in Hospitals and Nursing Homes in 2001

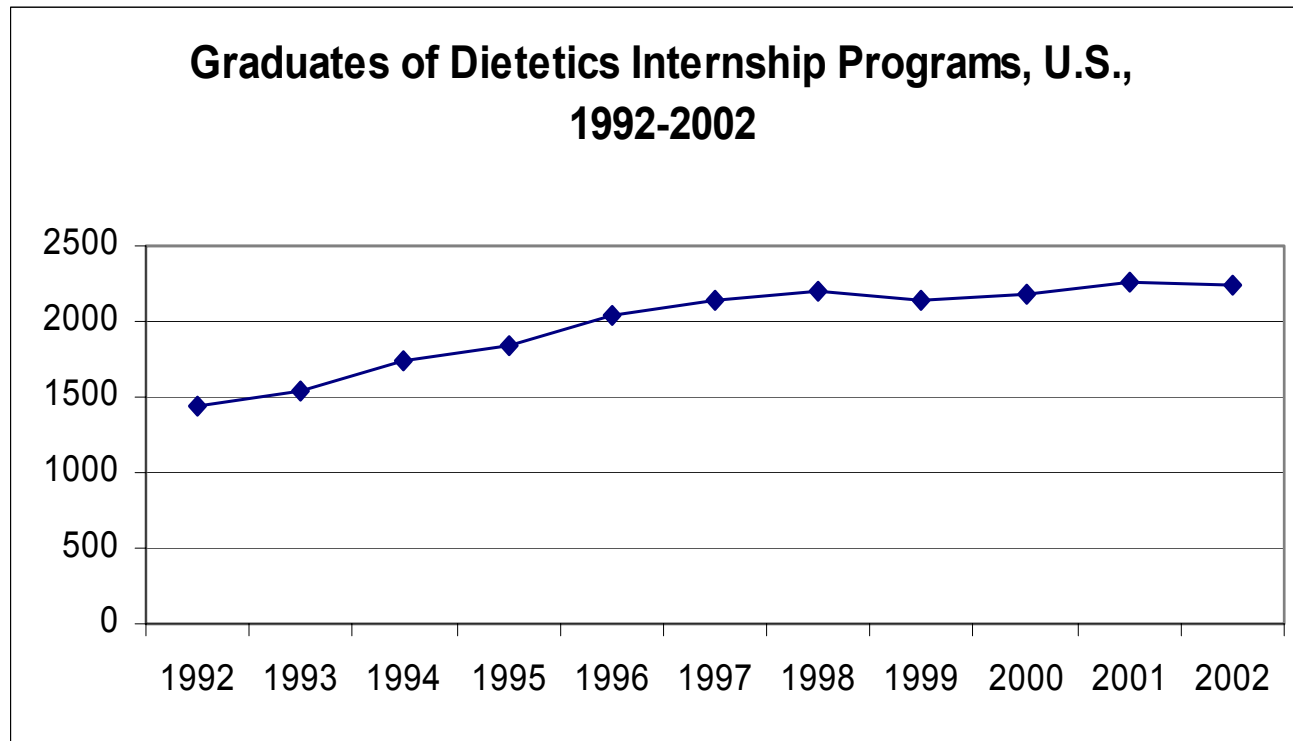
Distribution of Registered Dietitians Across Care Settings, 2001



The Median Age of Registered Dietitians in the US was 41 in 2001



While the Number of Accredited Programs Have Increased, Enrollment Has Declined



Source: ADA



RD Training Issues

- RDs are trained to manage the nutritional requirements of all segments of the population
- However, little specific information on provision of care to the elderly exists in their curriculum
- While 12% of practicing RDs report long-term care as their primary practice area, there is no special certification for RDs in geriatrics or aging.



Between 2002 and 2012, BLS Projects 21,000 RD Job Openings

- Demand for dietary and nutrition services among the elderly is expected to increase over the next several decades
- The demand will be driven by the rising number of elderly and compounded by the greater use of nursing, personal care and assisted living facilities
- Future generations of elderly will likely use more dietary services because of
 - Greater incidence of chronic disease
 - Greater incidence of obesity
 - Growing public awareness of the relationship between health and nutrition



Will the Supply of RDs Meet the Future Demand for Them?

- If the supply of RDs continues to grow at its current rate, the supply may be sufficient to meet projected demand.
- Demand may be affected by a number of factors:
 - Professional visibility
 - Referrals for dietitian services
 - Reimbursement issues
- Dietitians could play a greater role in providing nutritional counseling to the elderly, but would need more specific geriatric training



General Findings

- Many health professions and occupations do not offer formal credentials focused on the needs of the elderly
- When such a credential is offered, the number of workers with the credential is typically very small
- A majority of health care workers in most settings deal with substantial numbers of elderly people whether or not they are specialists.



General Finding

Many Health Professions Are Aging Rapidly

Dentists	40.7	44.0	+ 3.3
Dietitians	38.3	40.0	+ 1.7
Health records technologists and technicians	35.3	40.3	+ 5.0
Radiologic technicians	34.3	38.0	+ 3.7
Registered nurses	37.3	42.7	+ 5.4
Respiratory therapists	32.3	38.0	+ 5.7
Social workers	38.7	40.3	+ 1.7
Speech therapists	35.7	40.7	+ 5.0
Pharmacists	36.7	41.3	+ 4.6
Total civilian labor force	35.7	38.7	+ 3.0

Source: Bureau of Labor Statistics, Current Population Survey - Annual Demographic Supplement, 1988-2000.

Notes: Figures presented are averages of three years' data. Civilian labor force only.



General Findings

Demand for health care professionals to serve the elderly will be affected by:

- Medicare reimbursement policies
- New technologies
- New models of care
- Changes in profession-specific scope of practice

*What Can We Do to Assure a
Well-trained and Adequate
Health Workforce to Care for the
Growing Elderly Population?*



Key Stakeholders

- Health facilities and associations
- Government (U.S., states and local)
- Health professions education programs
- Professional associations
- Unions representing health workers
- Consumers/patients



Possible Responses

- Provide better training on geriatric issues to health professionals
 - Increase geriatric content in required curricula
 - Increase geriatric content on licensure examinations
 - Increase the availability of continuing education in geriatrics
 - Develop geriatric specialists within the profession



Possible Responses

- Help prepare health care workers for new roles in different settings
 - **More care will likely be delivered in homes and in assisted living settings**
 - **Health care may be delivered by interdisciplinary teams of health care workers**
 - **Scope of practice may change for some professions in response to greater demand by elderly patients**



Possible Responses

Assure an adequate pipeline of new health care workers as many retire or leave the field

- **Some professions are at greater risk for depletion than others:**
 - **Professions with long educational trajectories tend to be older (e.g., physicians, clinical psychologists)**
 - **Professions that attract older or second career students (e.g., registered nursing)**

Strategies include scholarships, health careers awareness, career ladders in health professions



Planning for the Future

- Assure an adequate supply of workers
- Increase knowledge and awareness of the needs of elderly patients
- Promote the development of a more culturally diverse workforce
- Support the development of a more accessible, cost-effective delivery system designed to better meet the needs of the growing elderly population in the US