

Health Workforce Trends
Who Do We Have Now?
Who Will We Need for the Future?

Presentation to the Rural Health Council

January 13, 2004

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<http://chws.albany.edu>



Overview of Presentation

- Health workforce issues and concerns
- Background on the health workforce in New York State
- Factors influencing the supply of and demand for health workers
- Impact of the aging of the US population on the health workforce
- Strategies to assure an adequate supply of well-trained health workers for the future



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



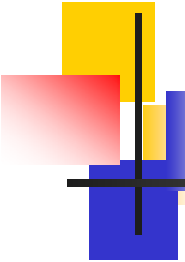
Selected Recent Reports

- ***"The Health Care Workforce in New York State, 2003: Trends in the Supply and Demand for Health Workers."*** Center for Health Workforce Studies, April 2004.
- ***"New York State Health Workforce Profile Update,"*** Center for Health Workforce Studies, November 2004.
- ***"State Responses to Health Workforce Shortages: Results of a 2002 Survey of States"***, HRSA, November, 2002
- ***"The Impact of An Aging America on the Supply and Demand for Health Professionals"*** HRSA, publication anticipated in December, 2004.

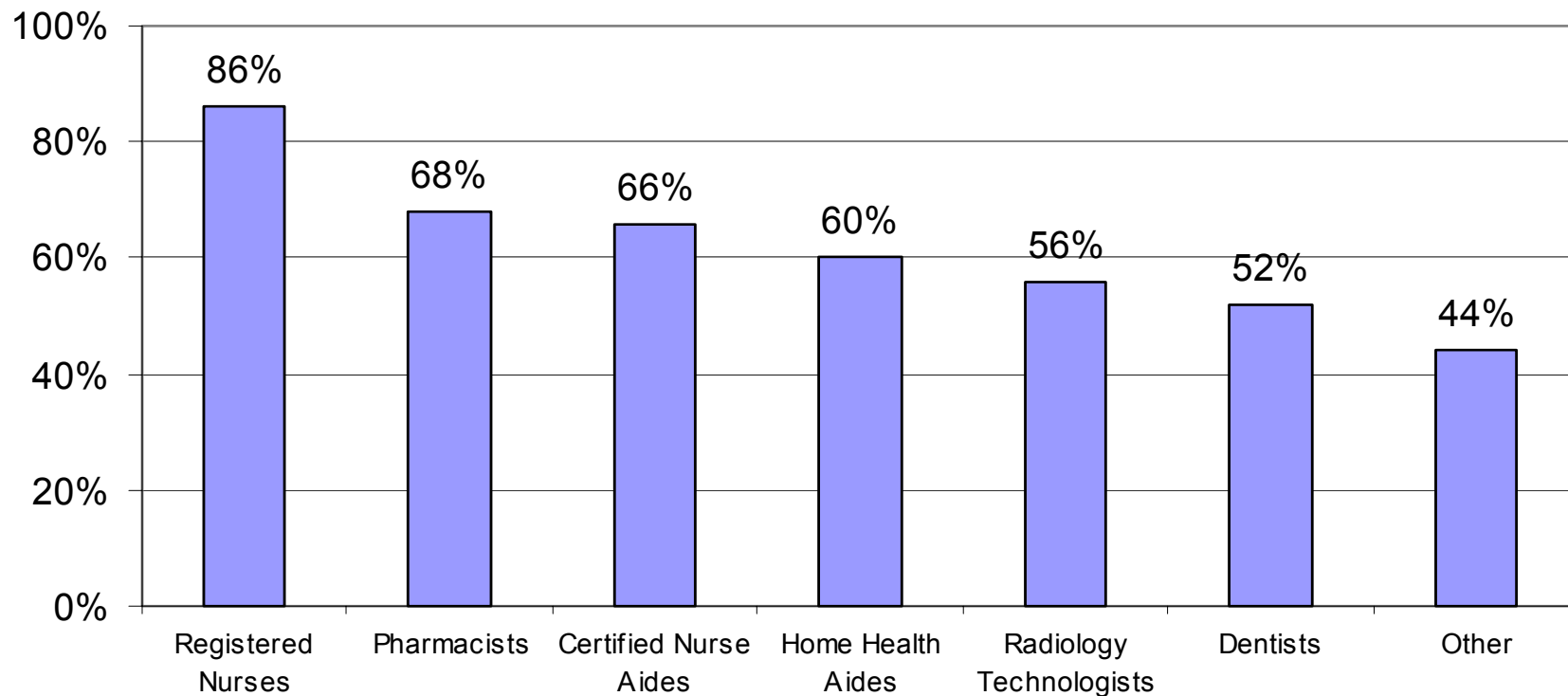


Current Health Workforce Issues

- Serious shortages in many professions across the nation threatening ability to deliver services
- 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 the health workforce



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



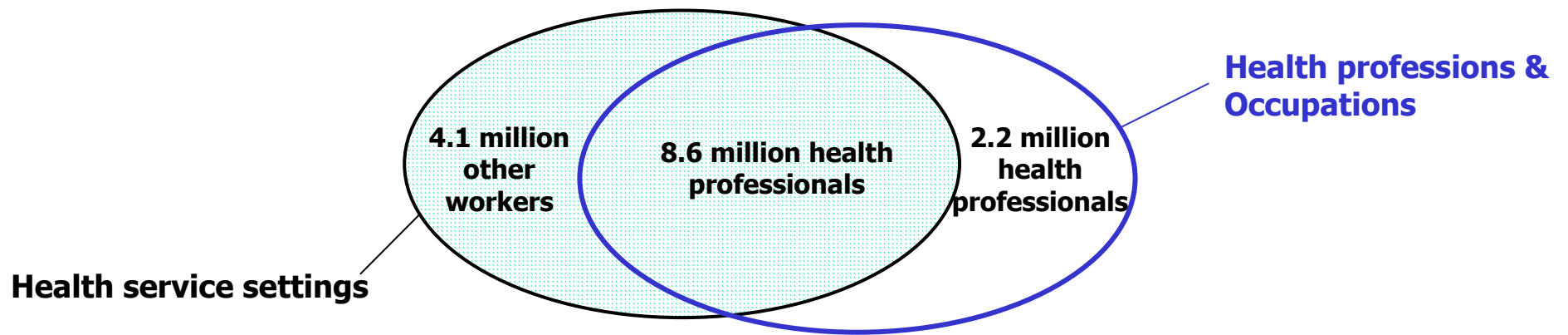
Source: Center for Health Workforce Studies, 2002



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	14,908,498	10.5%
US civilian labor force	141,558,183	100.0%

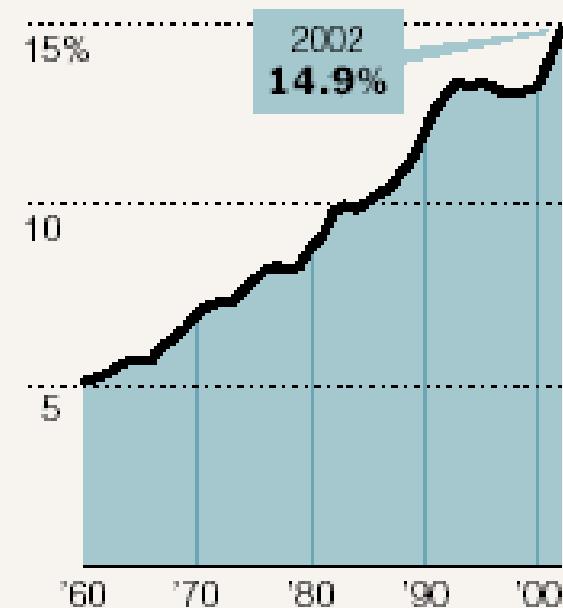
Health care spending accounts for nearly 15 percent of the nation's economy

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

*What Do We Know About
the Health Workforce
in New York State?*



In 2002, One in Nine Jobs in NYS Was in the Health Sector

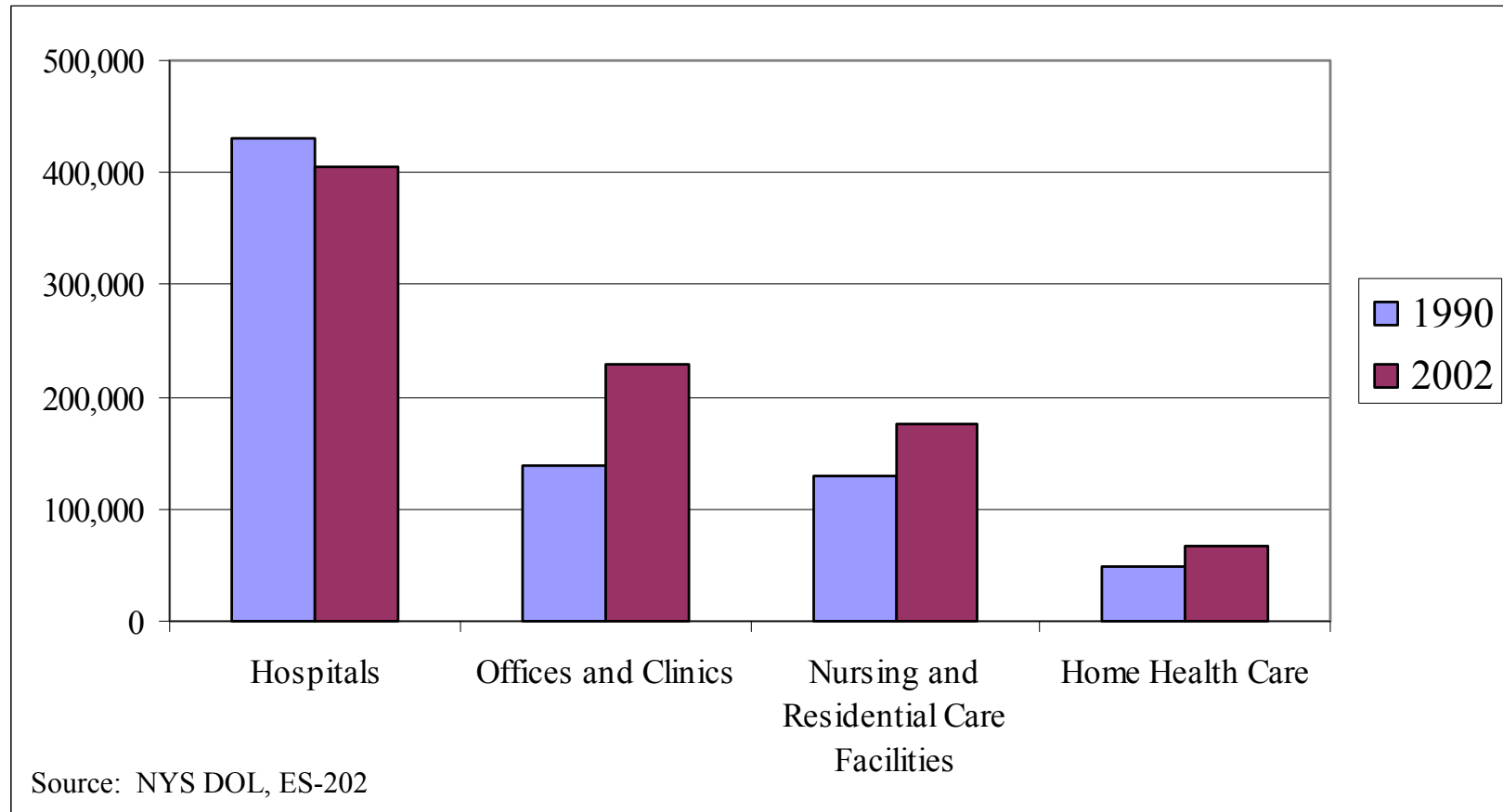
	New York City	Rest of State	New York State	United States
Number of Jobs	387,985	507,413	895,398	12,605,760
Jobs per 100,000	4,838	4,603	4,702	4,493
Percent of Total Workforce	10.8%	11.3%	11.1%	9.8%

Sources: USDOL, BLS; US Census Bureau; NYS DOL,ES-202

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Most Settings within the NYS Health Sector Have Experienced Job Growth since 1990

Health Sector Employment by Setting, 1990 & 2002





New York Ranked 3rd Among States in Physicians Per Capita

Physicians in New York State, Region II, & the US in 2000

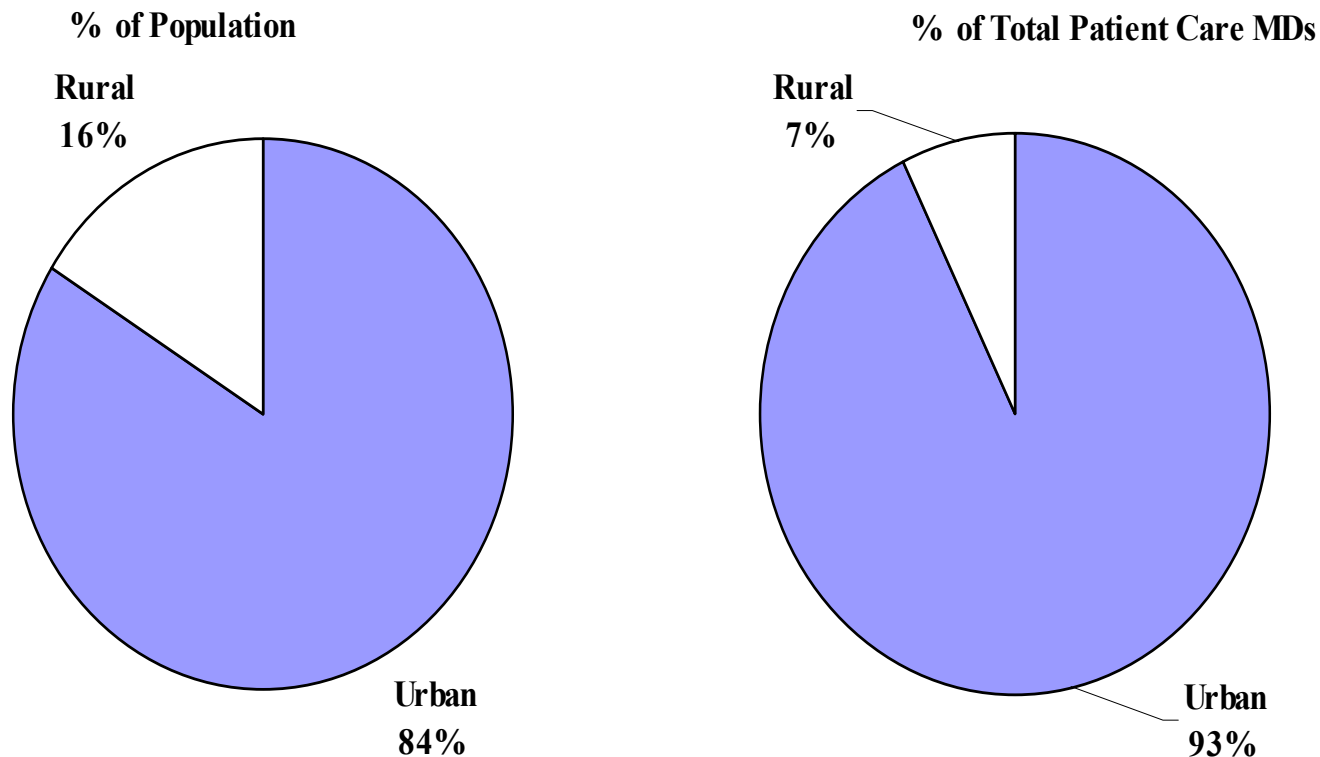
	New York State	Region II	United States	NY Rank
Number of Physicians	49,125	69,965	558,054	2/50
Physicians per 100,000	259	255	198	3/50
Percent Primary Care	31%	32%	35%	3/50
Percent Female	29%	28%	24%	3/50
Average Age	47.8	48.0	48.6	36/50
Percent 55 & Older	31%	31%	32%	26/50
Percent 65 & Older	17%	17%	17%	20/50

Sources: American Medical Association; American Osteopathic Association; Bureau of the Census

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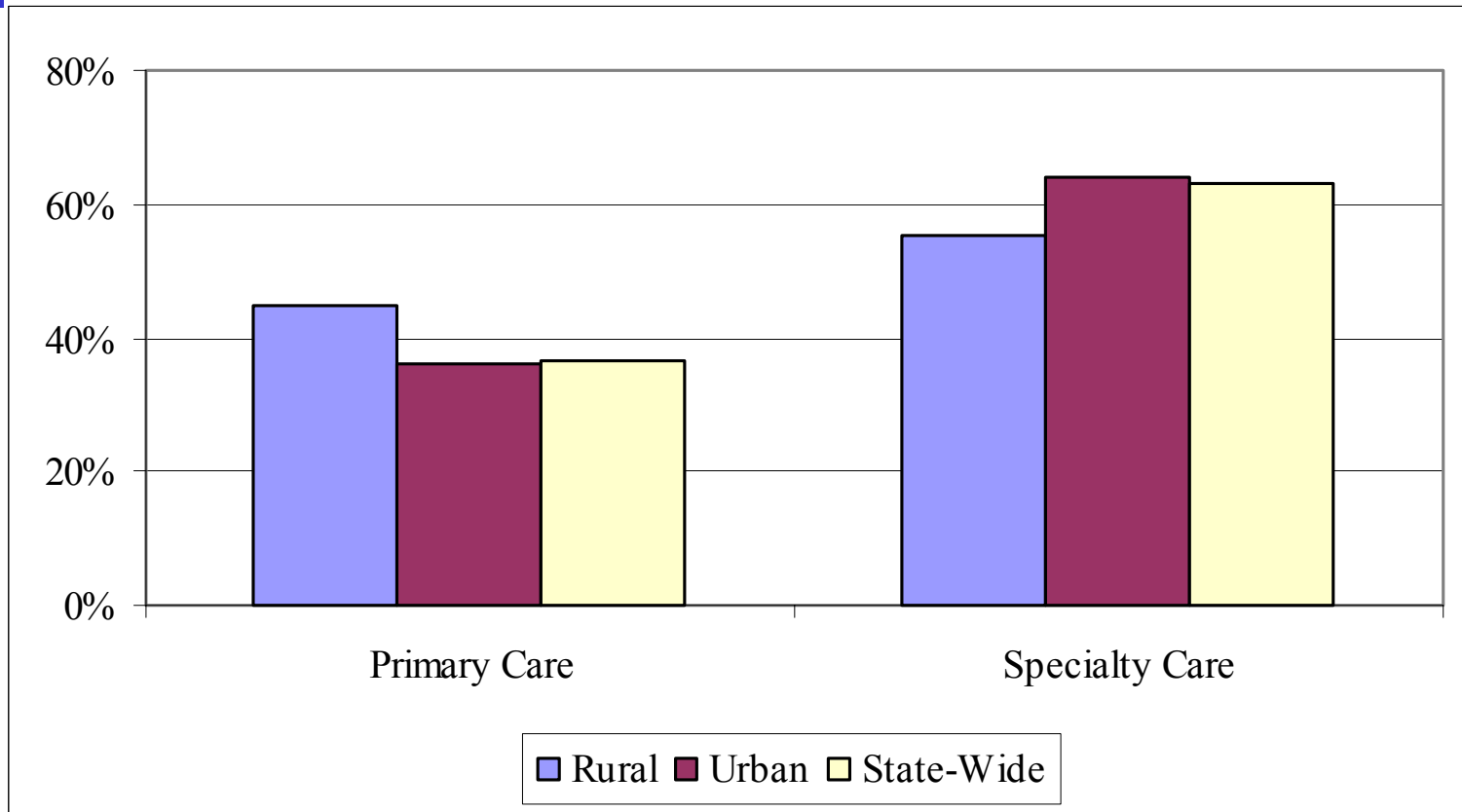
In 2003, 7% of NYS Physicians Served 16% of NYS Population Living in Rural Counties



Source: US Census, 2003 Population Estimates; Physician Characteristics and Distribution in the US, 2005 Edition, American Medical Association

In 2003, Rural Counties in NYS Had a Higher Percentage of Primary Care Physicians Than Urban Counties

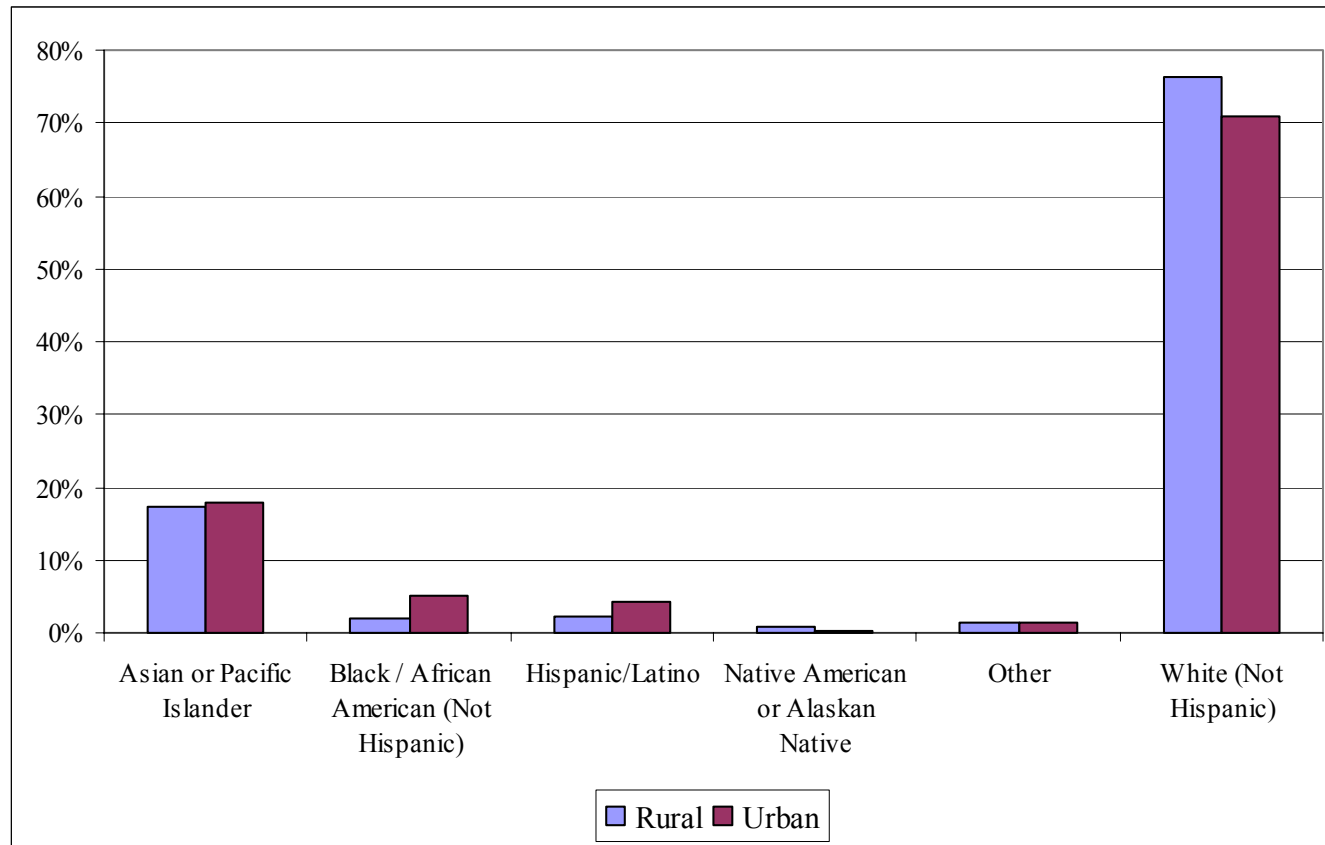
Specialty of Active Patient Care Physicians by Location in 2003



Source: Physician Characteristics and Distribution in the US, 2005 Edition, American Medical Association

In 2003, a Small % of NYS Physicians Were Under-represented Minorities

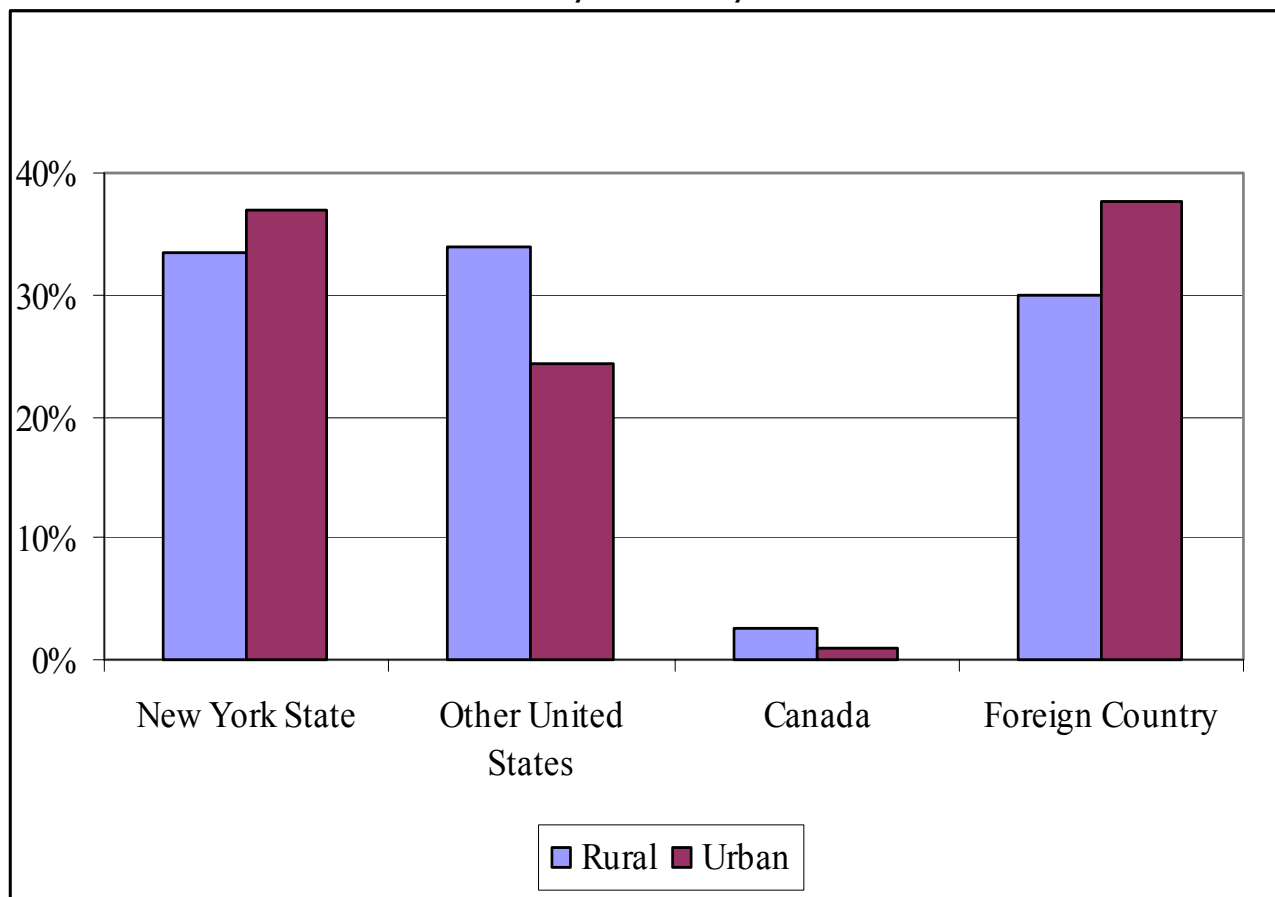
Race/Ethnicity of Active Patient Care Physicians in NYS by Location in 2003



Source: Physician Characteristics and Distribution in the US, 2005 Edition, American Medical Association

Over 30% of Physicians in Rural Counties in 2003 Attended Medical Schools Outside of the US

NYS Active Patient Care Physicians by Location of Medical School

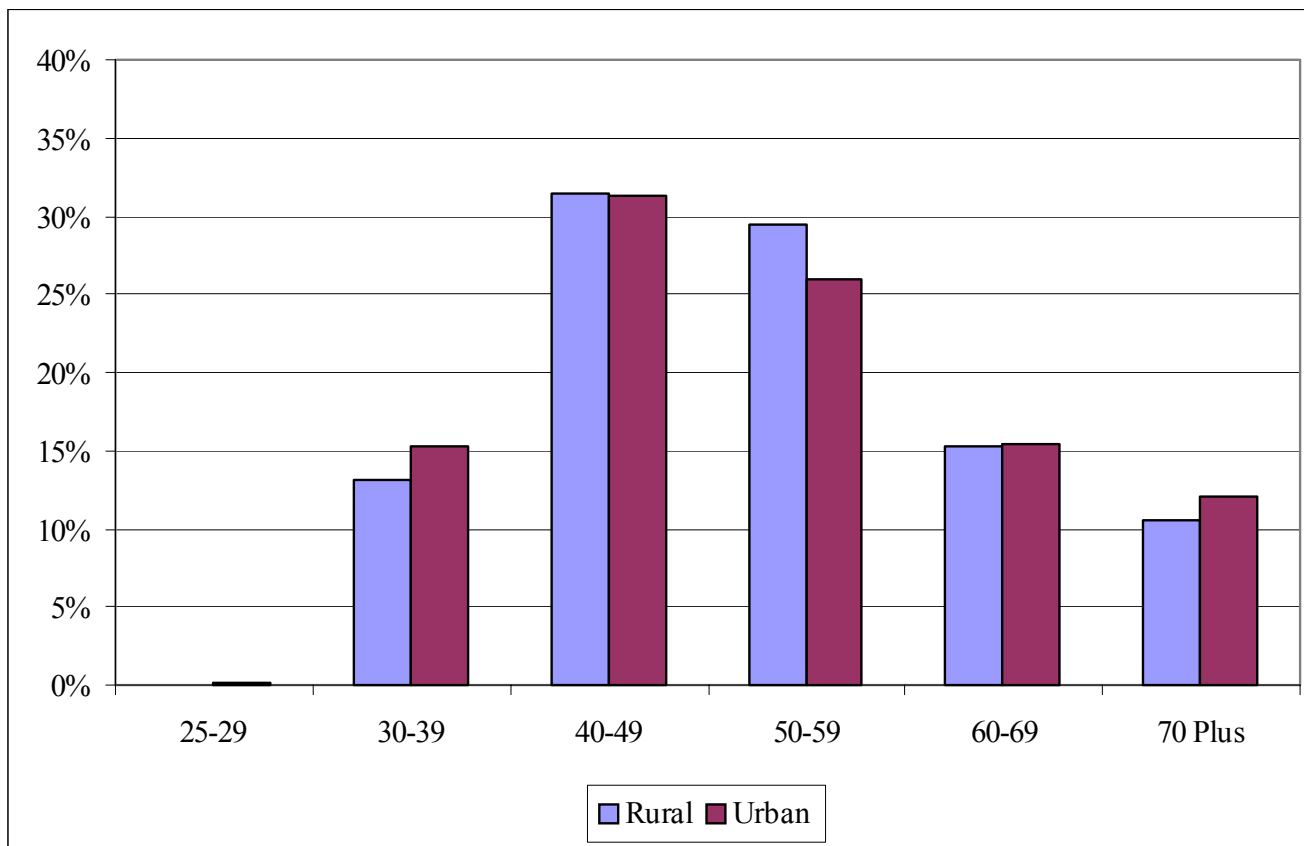


Source: Physician Characteristics and Distribution in the US, 2005 Edition, American Medical Association

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There Was Little Difference in Age Between Rural and Urban Physicians in 2003

Age Distribution of Active Patient Care Physicians in 2003



Source: Physician Characteristics and Distribution in the US, 2005 Edition, American Medical Association



NYS Ranked 2nd in the Country in the Number of Active RNs in the State

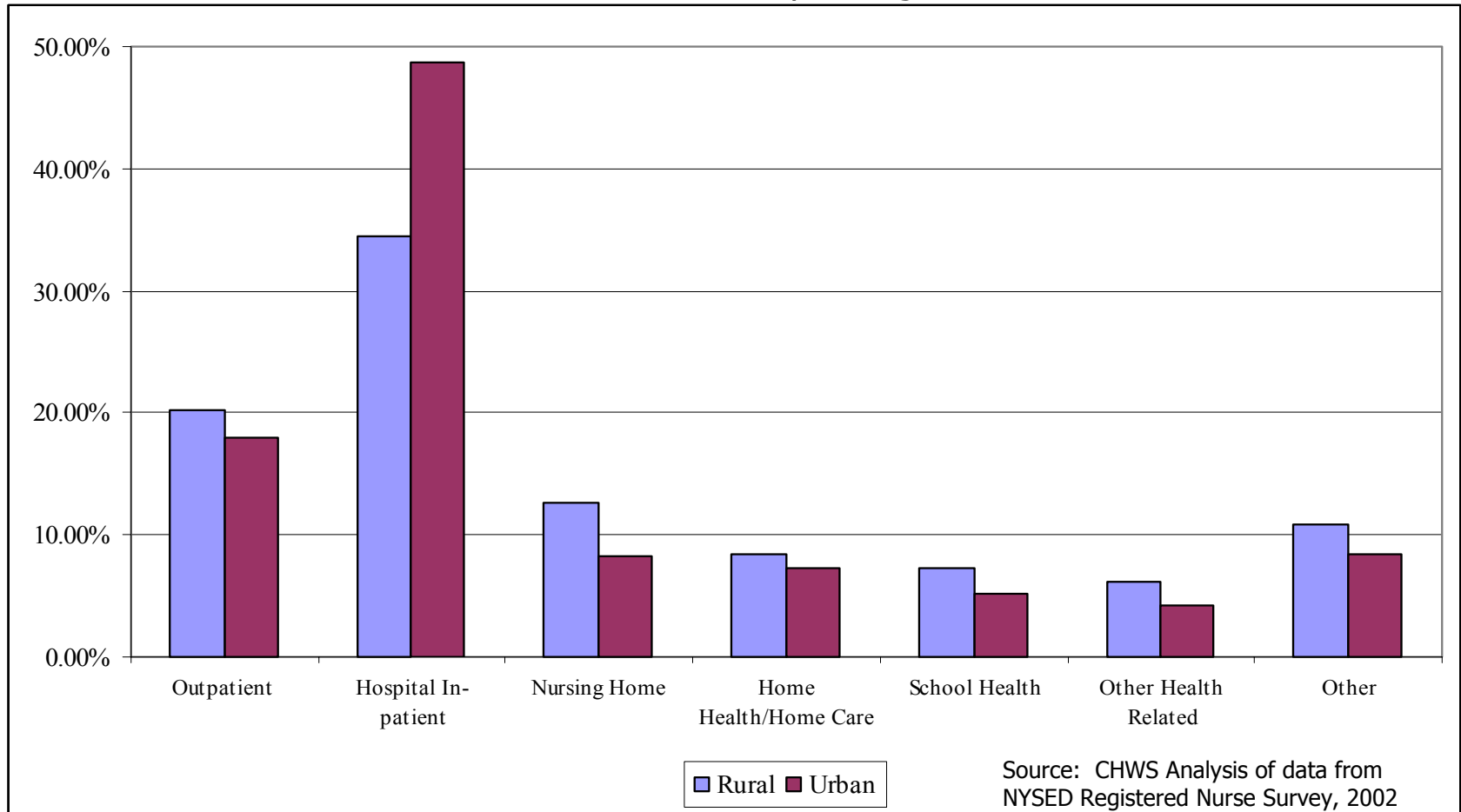
RNs in New York State, Region II, & the US in 2000

	New York State	Region II	United States	NY Rank
Total Registered Nurses (RNs)	197,532	285,511	2,696,540	2/50
RNs Employed in Nursing	160,009	227,289	2,201,814	2/50
RNs per 100,000	842.2	828.5	780.2	22/50
Percent of RNs Employed Full-Time	71%	70%	71%	26/50

Source: HRSA, National Sample Survey of Registered Nurses; US Census Bureau

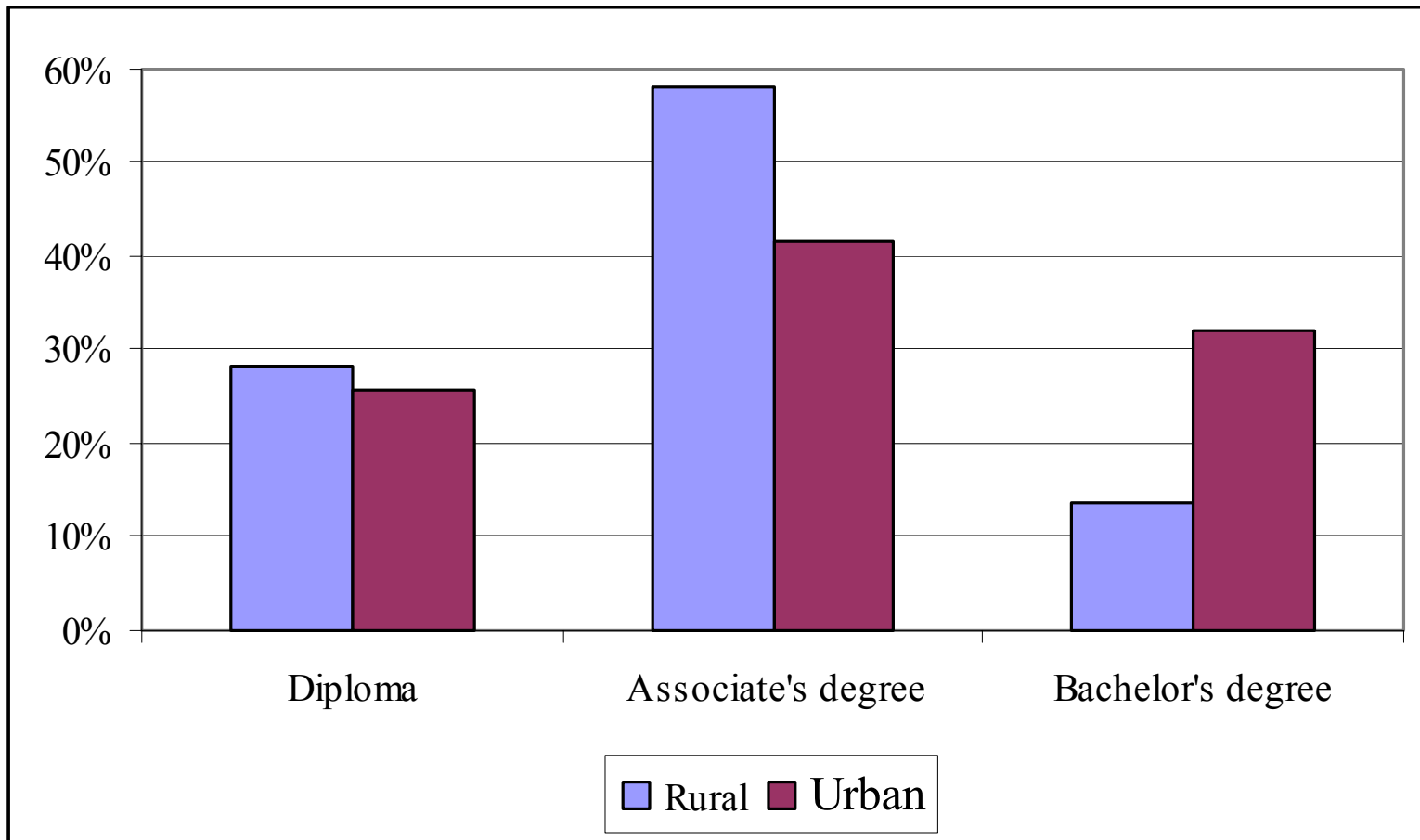
Rural RNs Were Less Likely to Work in Hospitals Compared to Urban RNs

Active New York State RNs by Setting, 2002



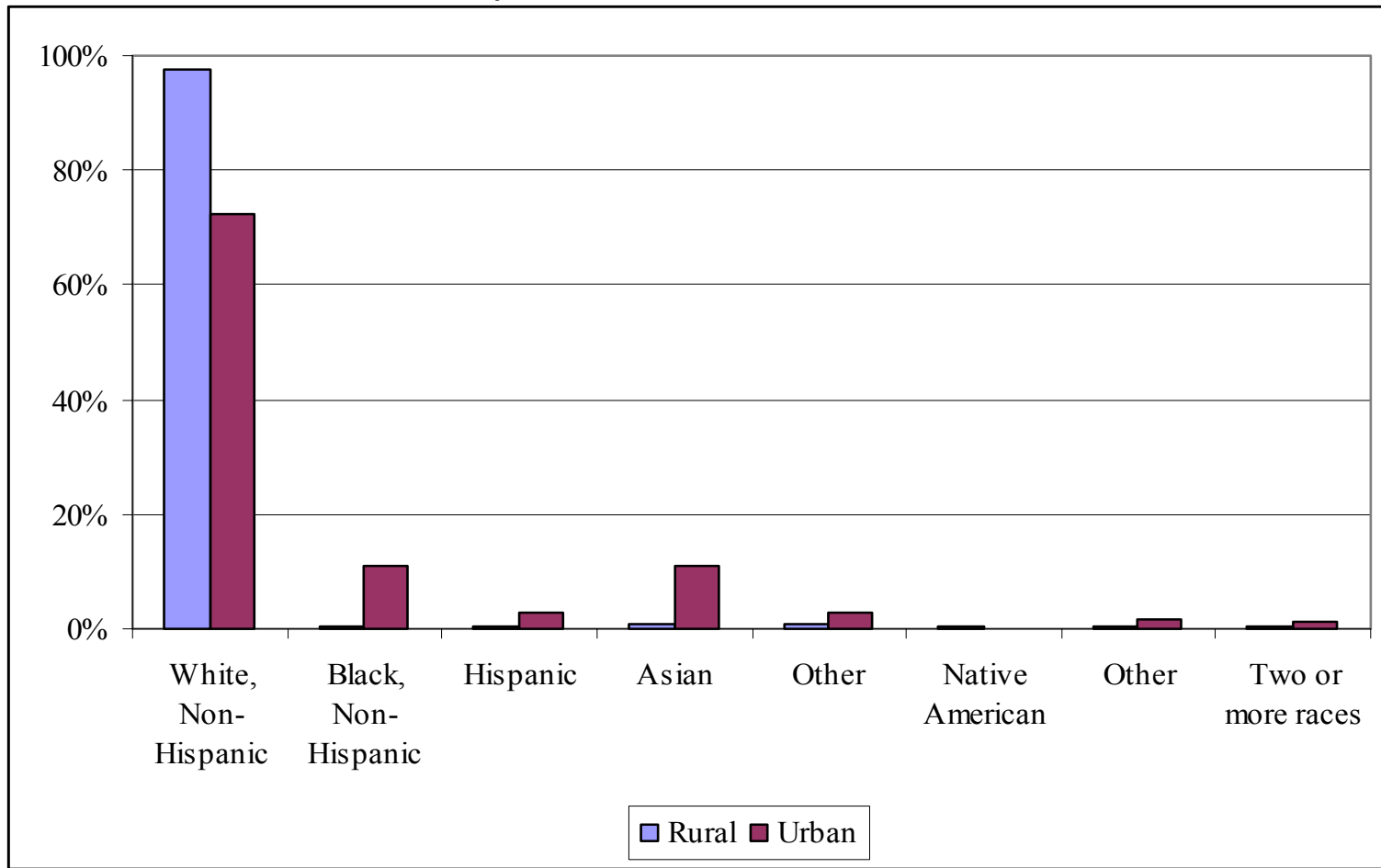
RNs in Rural Counties Were More Likely to Enter Nursing With an AAS

First Nursing Degree for Active New York State RNs in 2002



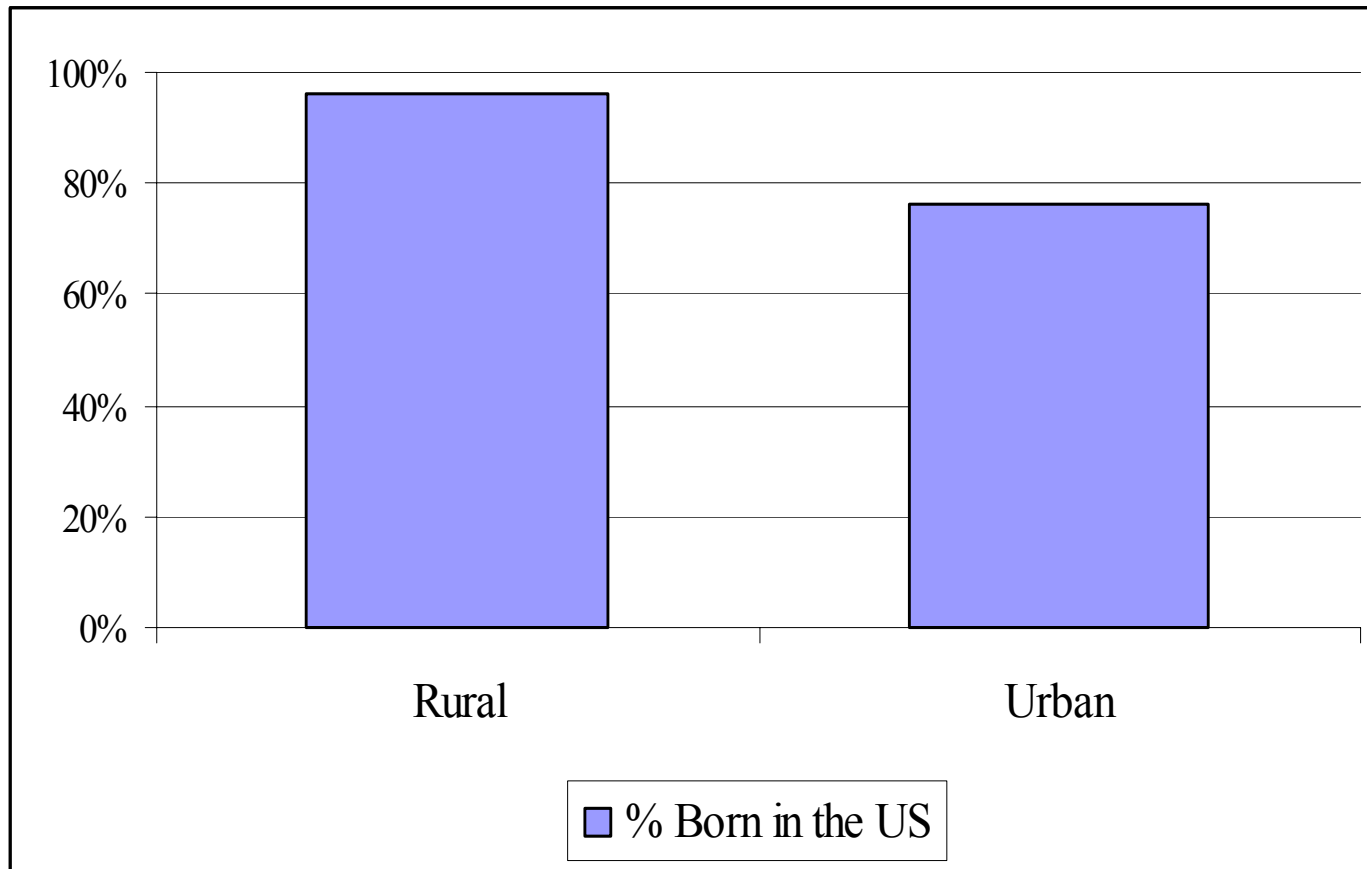
Rural RNs Were Less Diverse Than Their Urban Counterparts

Race/Ethnicity of Active New York State RNs in 2002



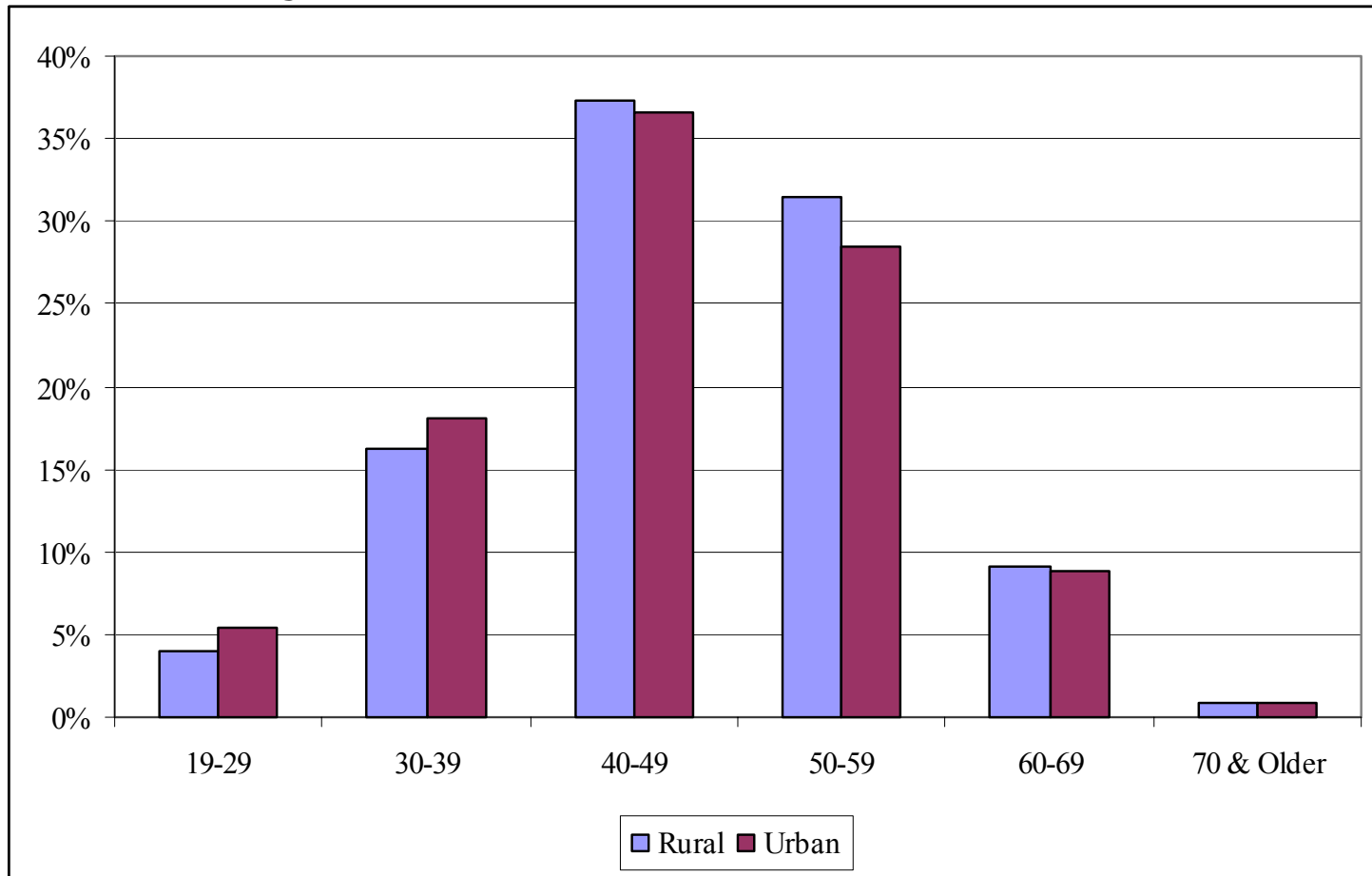
Most of the RNs in Rural Counties in NYS Were Born in the US

Percent of Active RNs in 2002 in New York State Born in the U.S.



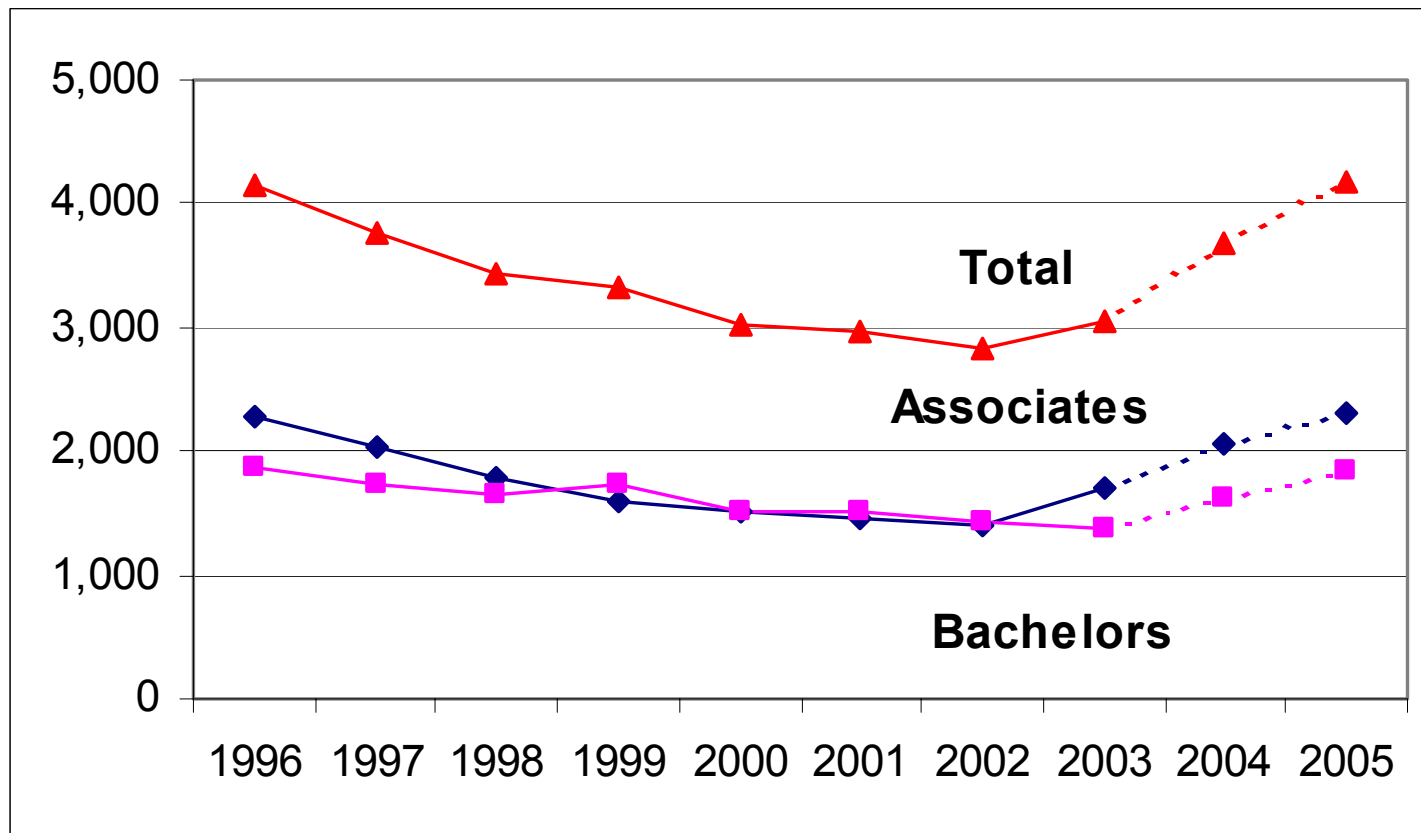
There was Little Age Difference Between Rural and Urban RNs

Age Distribution of Active New York State RNs in 2002



RN Graduations Are Rising in NYS & Many Programs Are at Full Capacity

RN Graduations in New York State, 1996 - 2005

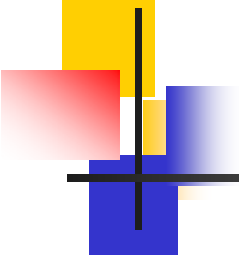


Source: Center for Health Workforce Studies

Center for Health Workforce Studies
School of Public Health – University at Albany, SUNY, January 2005

Actual —
Estimated - - - -

*What Contributes to Health
Workforce Shortages?*



The Causes of Health Worker Shortages

- The current shortages reflect both supply and demand factors
- There are short term, long term and workplace factors that contribute to shortages of health workers

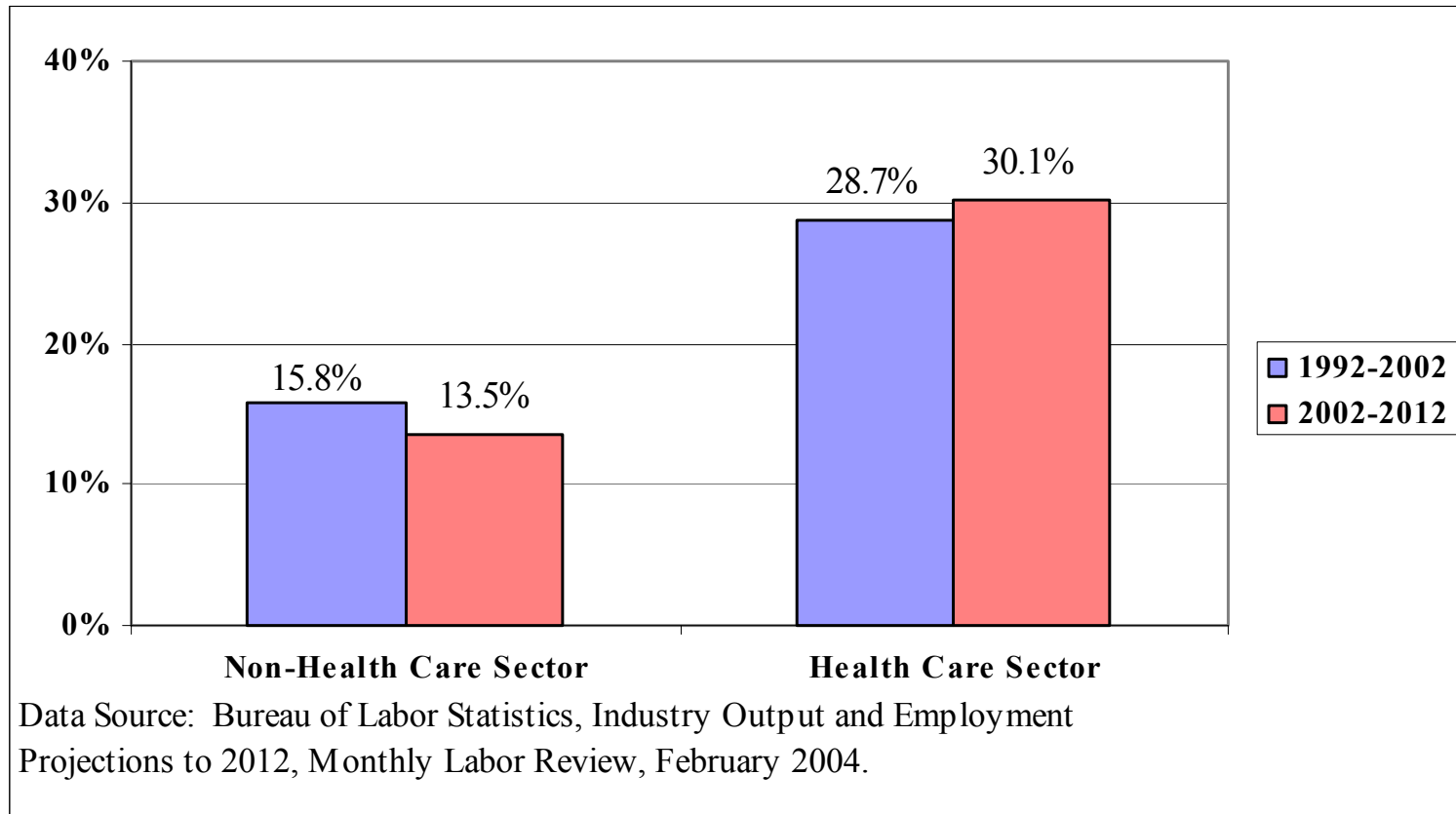


Factors Contributing to Health Workforce Shortages

■ Short term factors

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

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



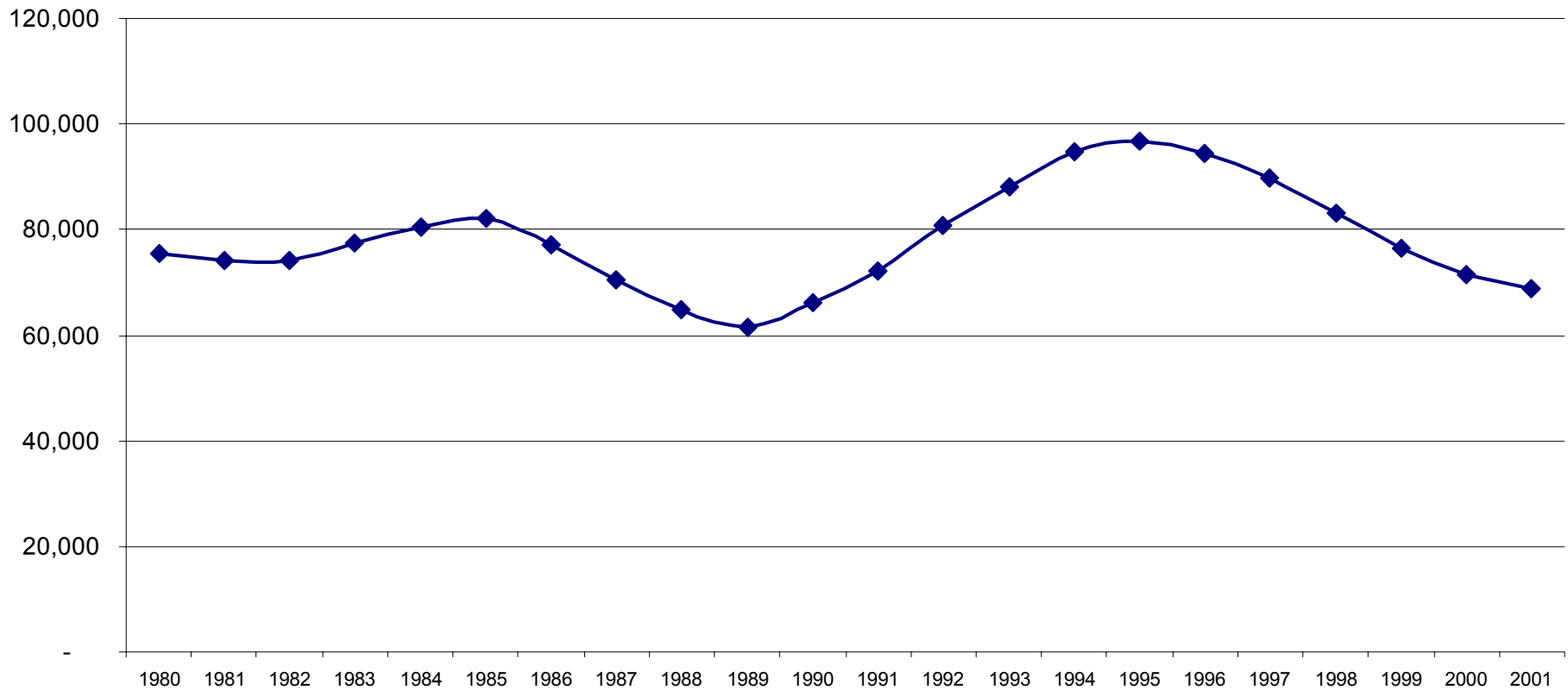


Half of the fastest growing occupations in the US between 2002 and 2012 are projected to be in health care

- **Medical Assistants (59%)**
- **Physician assistants (49%);**
- **Home health aides (48%);**
- **Medical records and health information technicians (47%);**
- **Physical therapist aides (46%);**
- **Physical therapist assistants (45%);**
- **Dental hygienists (43%);**
- **Occupational therapist aides (43%);**
- **Dental assistants (42%);**
- **Personal and home care aides (40%);**



The Number of RN Graduations in U.S. Have Been Cyclical Between 1980 & 2001





Factors Contributing to Health Workforce Shortages, continued

- Workplace factors
 - Physically and emotionally demanding work
 - Non-competitive wages and benefits
 - Job design and working conditions
 - Paperwork and lack of efficient information systems
 - Poorly trained managers



A Vicious Cycle

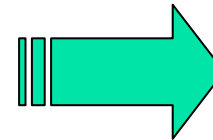
Community-wide Nurse Shortages



Facility Staffing Shortages



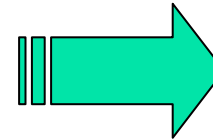
Understaffed Units



Poor Quality



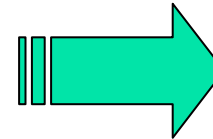
Nurse Burnout



Poor Quality



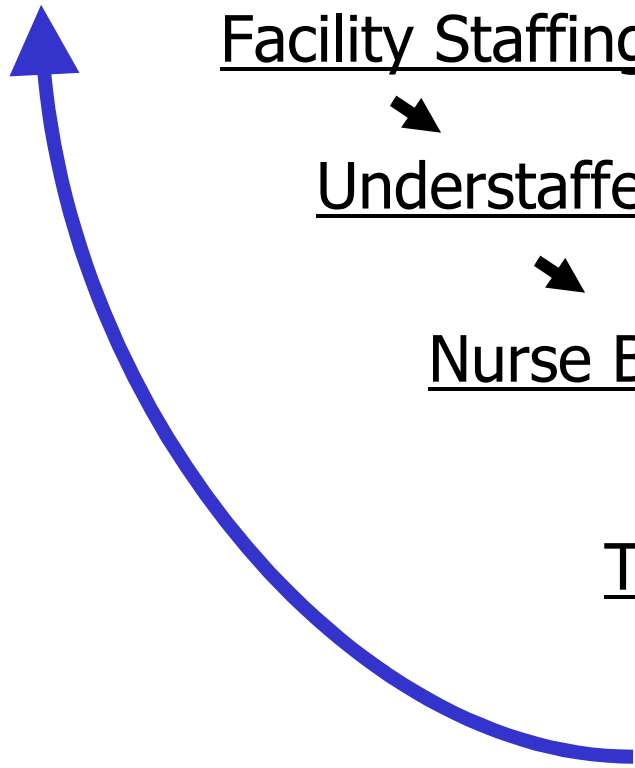
Turnover



Poor Quality



Growing Nursing Shortages



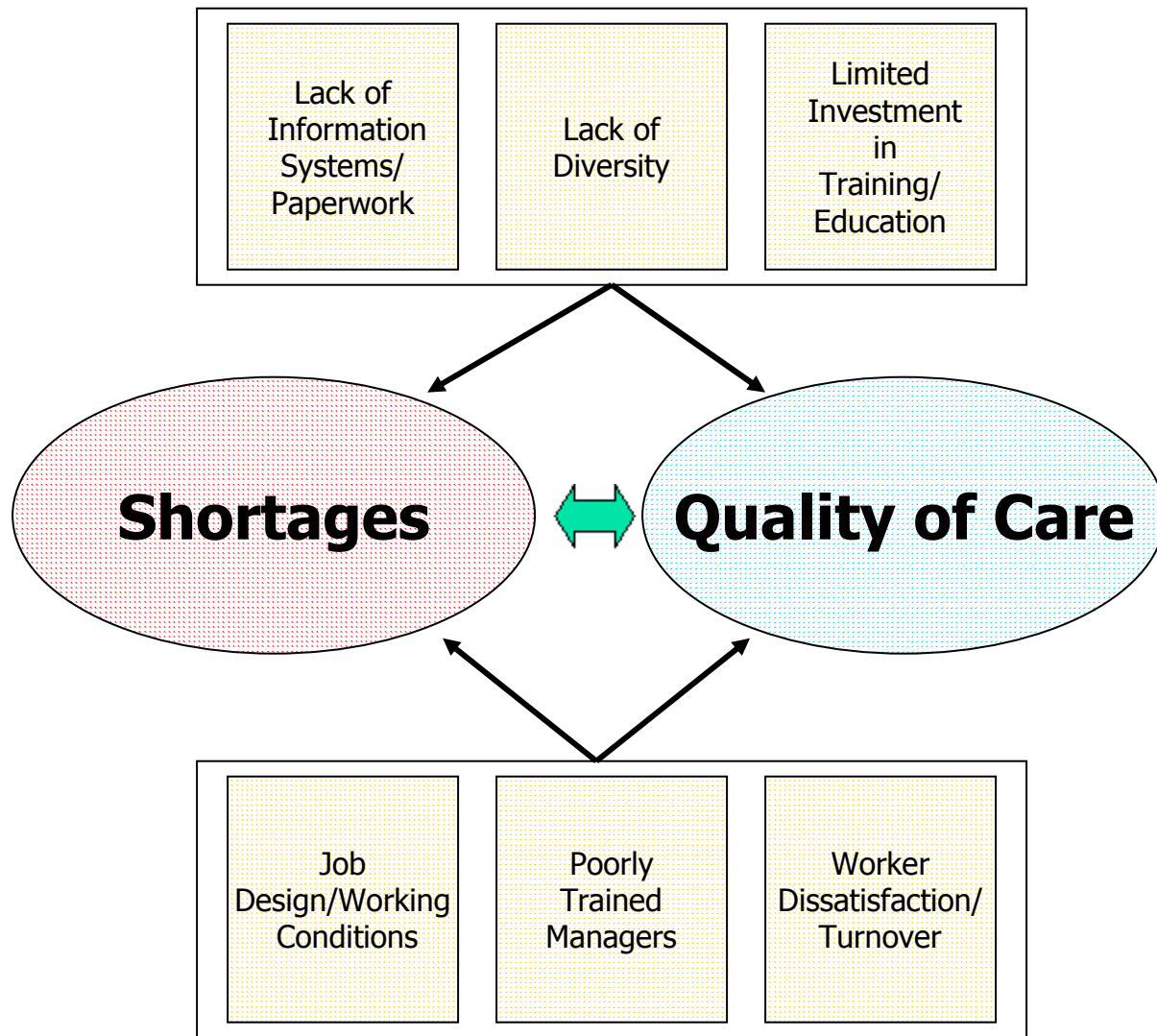
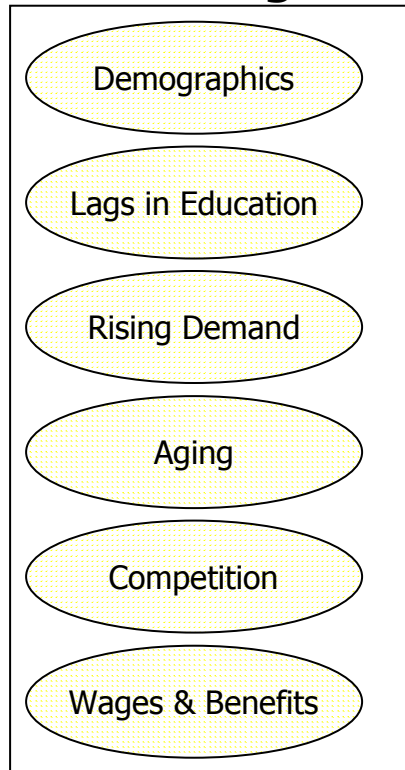


Factors Contributing to Health Workforce Shortages, continued

- 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 health workers

Factors Impacting on Shortages and Quality

Factors Impacting on Shortages



*The Aging of America
and
Demand for Health Services*



A Study of the Impact of Aging on the Health Workforce in the US

- **HRSA funded study**
 - **Aging: What do we know about this new cohort of aging Americans?**
 - **Profile of the Current Workforce**
 - **Over 20 Health Professions**
 - **Services to the Elderly**
 - **Training, Education, Credentials Related to Aging**
 - **Supply Trends/Demand Projections & Gap**
 - **Profession-Specific Issues**

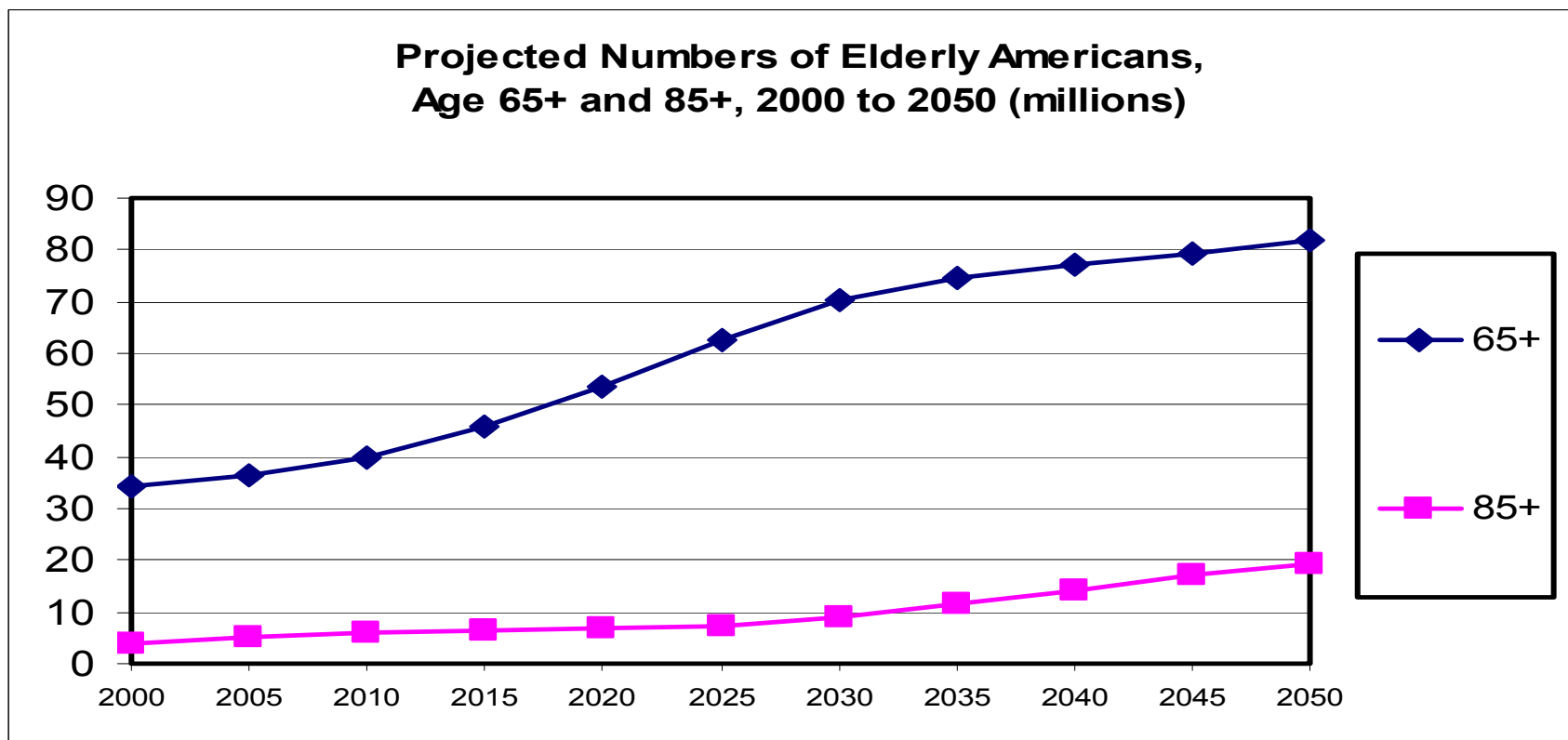


The Aging Report Studied a Wide Array of Health Professions/Occupations

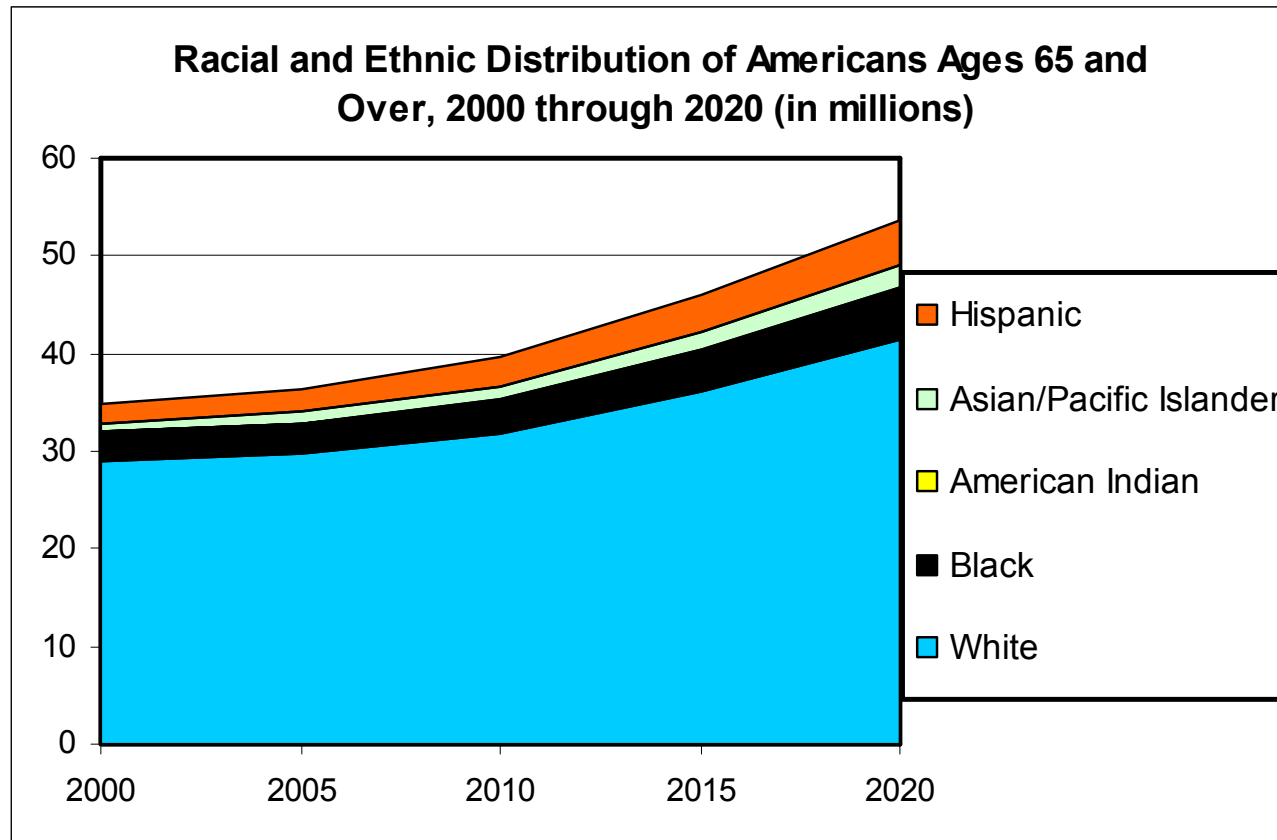
- **Physicians**
- **PAs and NPs**
- **Nursing**
- **Oral Health Providers**
- **Chiropractors**
- **Podiatrists**
- **Therapy Professions**
- **Pharmacists**
- **Registered Dietitians**
- **Clinical Psychologists**
- **Social Workers**
- **Nursing Home Administrators**
- **Optometrists**

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

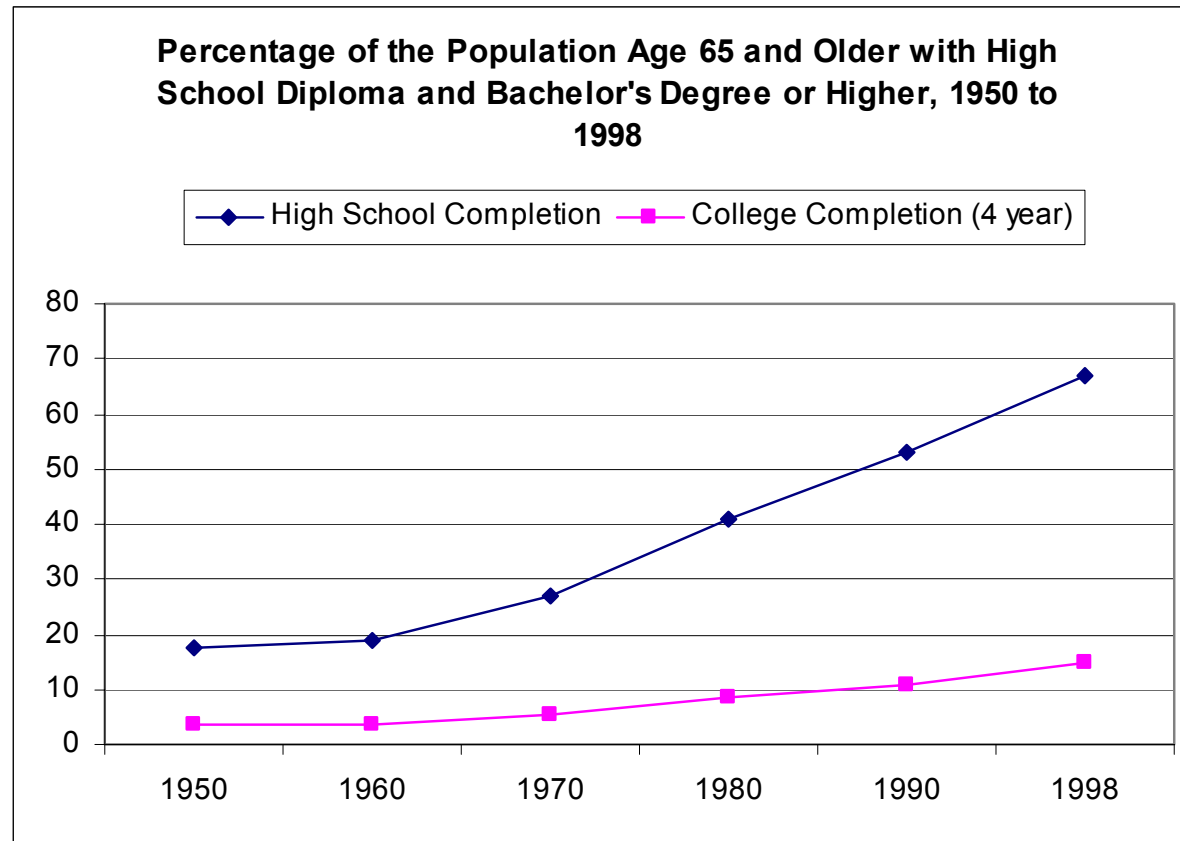
Baby Boomers begin to turn 65 in 2011.



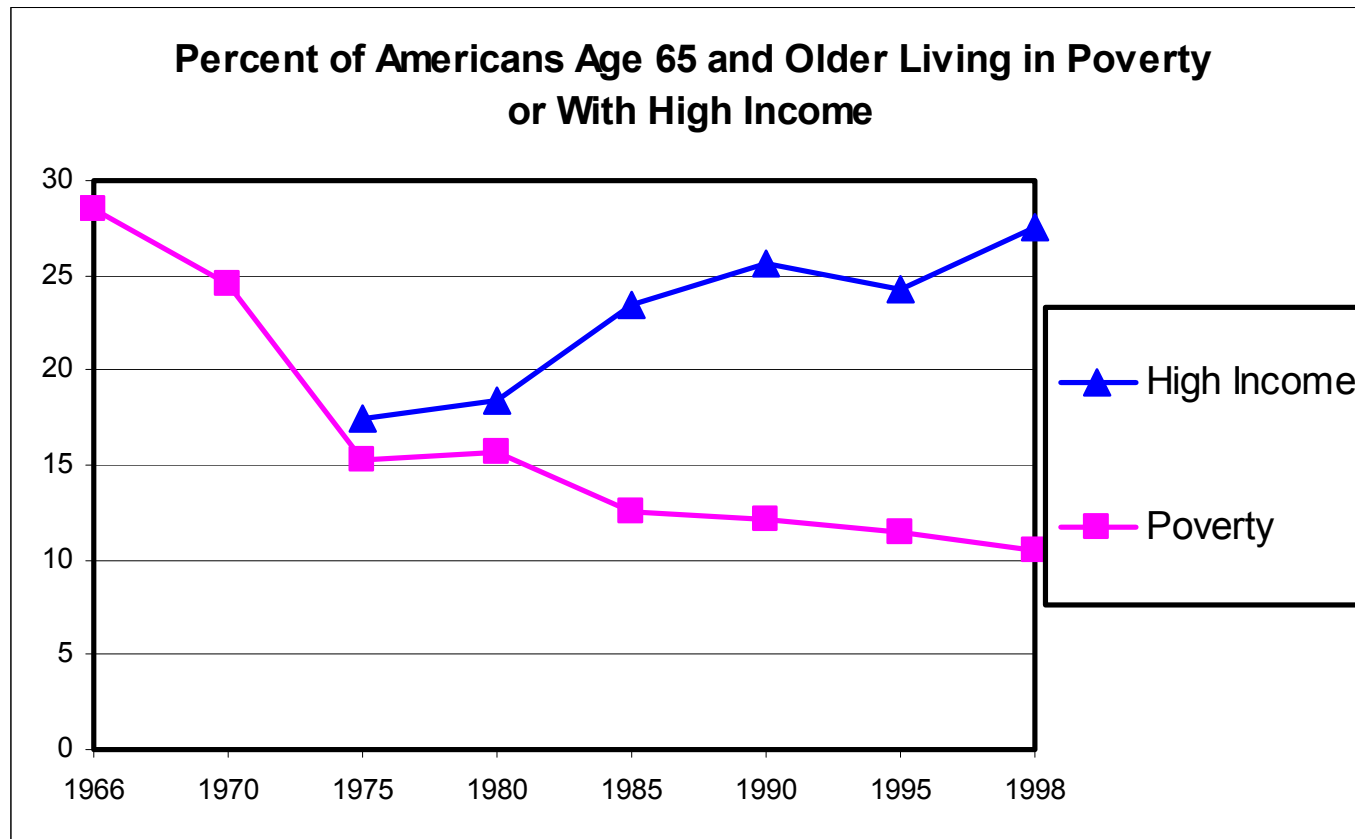
The Elderly Population in the US Will Grow Increasingly Diverse Over the Next 20 Years



The Elderly Are Better Educated Than in the Past



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





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.



Impact on Health Services Delivery System

- The elderly consume more health care services than younger age groups
- The elderly have different health care needs than younger age groups
- The elderly will have a greater range of health care models to choose from than in the past
- Access to care will be a greater issue for the elderly

Profession-Specific Findings:

Physicians

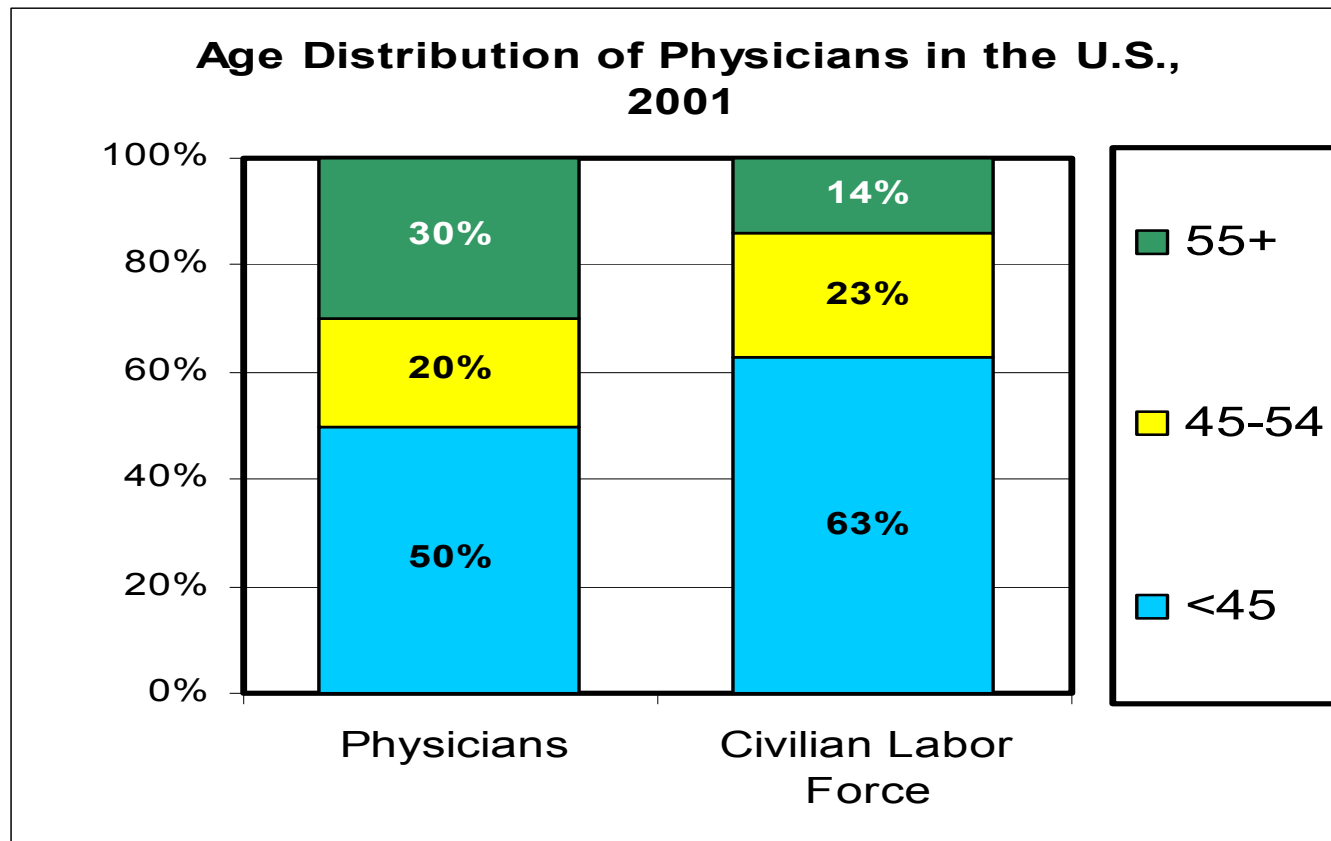
Registered Nurses



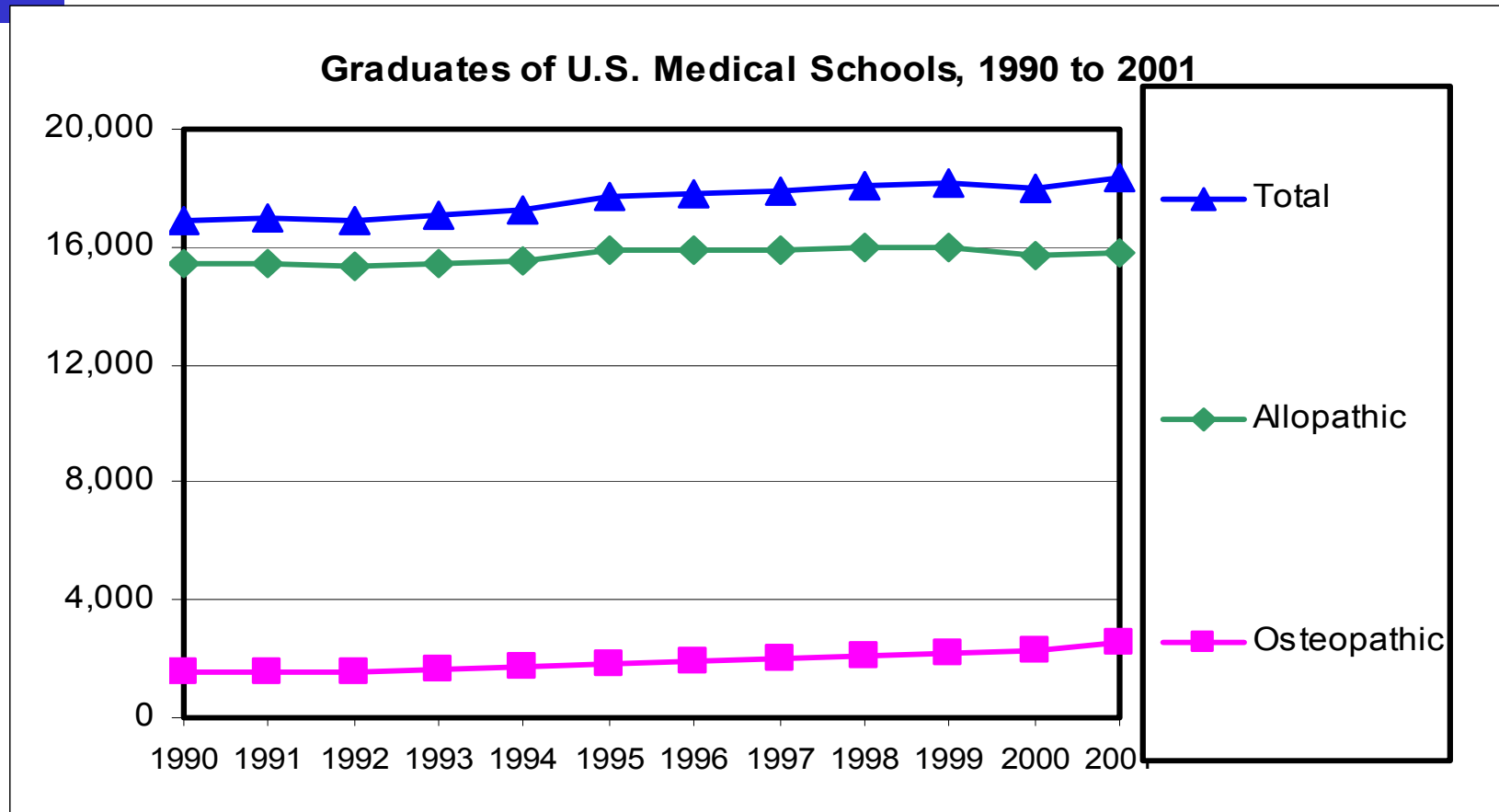
Physicians

- The elderly account for
 - 24% of physician office visits
 - 30% of visits to physicians in hospital outpatient clinics
 - 29% of hospital inpatient admissions
- Most primary care physicians treat large numbers of elderly patients.
- Physicians in almost every medical and surgical specialty treat elderly patients

Physicians Are Older Than the Overall Civilian Labor Force



Between 1990 and 2001, the Number of US Medical School Graduates Remained Relatively Stable



Source: AAMC, AACOM



Physicians-

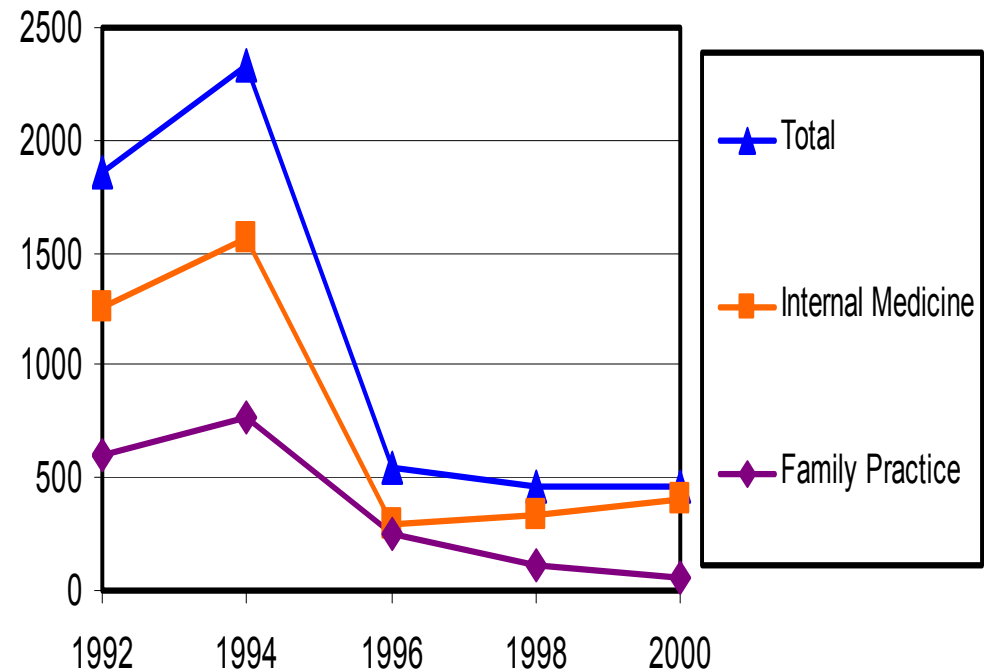
Is Geriatric Care Training Adequate?

- The coverage of geriatric care in medical school curriculum is limited, mostly offered on an elective basis.
- Primary care residency programs require a four to six week rotation in geriatrics.
- Many physicians, especially those trained before 1985, have never been exposed to formal geriatric training.
- Geriatric education centers (GECs) are a major source of training (traditional coursework, distance learning, workshops, or Internet modules).

Geriatrics is a small and declining specialty among physicians

- Geriatricians are physicians who are board certified in either internal medicine or family practice, and who are specially trained to care for older people.
- In 2000 there were a total of 227 geriatricians entering the workforce out of a total of 24,000 new physicians.
- Since 1991, 1,779 specialists in family practice and 3,853 in internal medicine have completed certificates in geriatric medicine.

Geriatric Subspecialty Certificates Issued,
U.S., 1992 - 2000



Source: ABMS



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

- BLS projects 18% growth in total physician positions between 2000 and 2010
- Over that time, there will be 38,000 annual job openings
- Only 20,000 of those positions will be due to net growth in the profession
- The remaining openings will be created by attrition from the field



Will the Supply of Physicians Be Sufficient to Meet Future Demand?

- Demand for physicians to care for the elderly will increase in the next 20 years
 - Do we need more geriatricians?
 - Do we need to increase geriatric training for all physicians?
- Other factors affecting demand:
 - Elderly access to care issues
 - Reimbursement

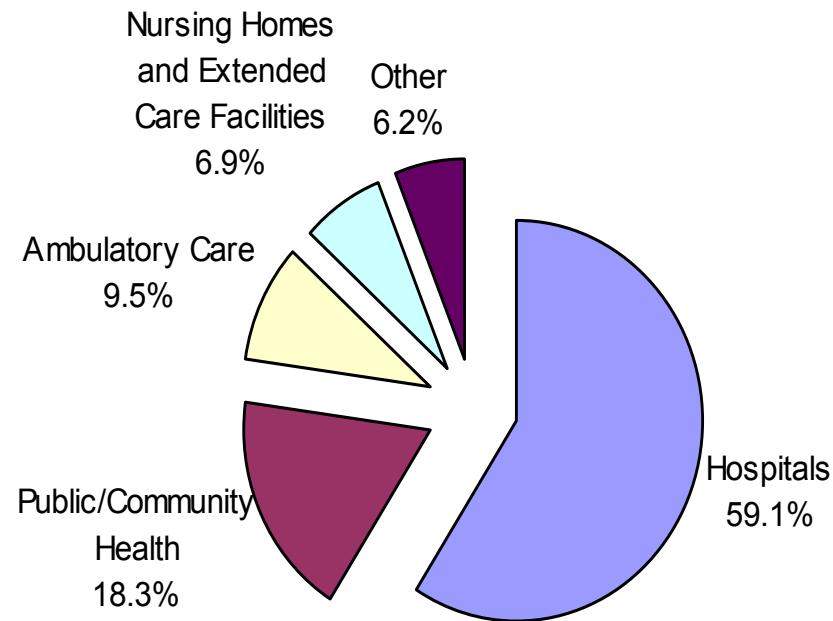


Registered Nurses

- Filled 2 million jobs in the US in 2000, making them the largest health profession
- Work in variety of health care settings that serve large numbers of older adults
- Provide direct patient care, educate patients and families, develop and manage nursing care plans, supervise clinical and non-clinical staff

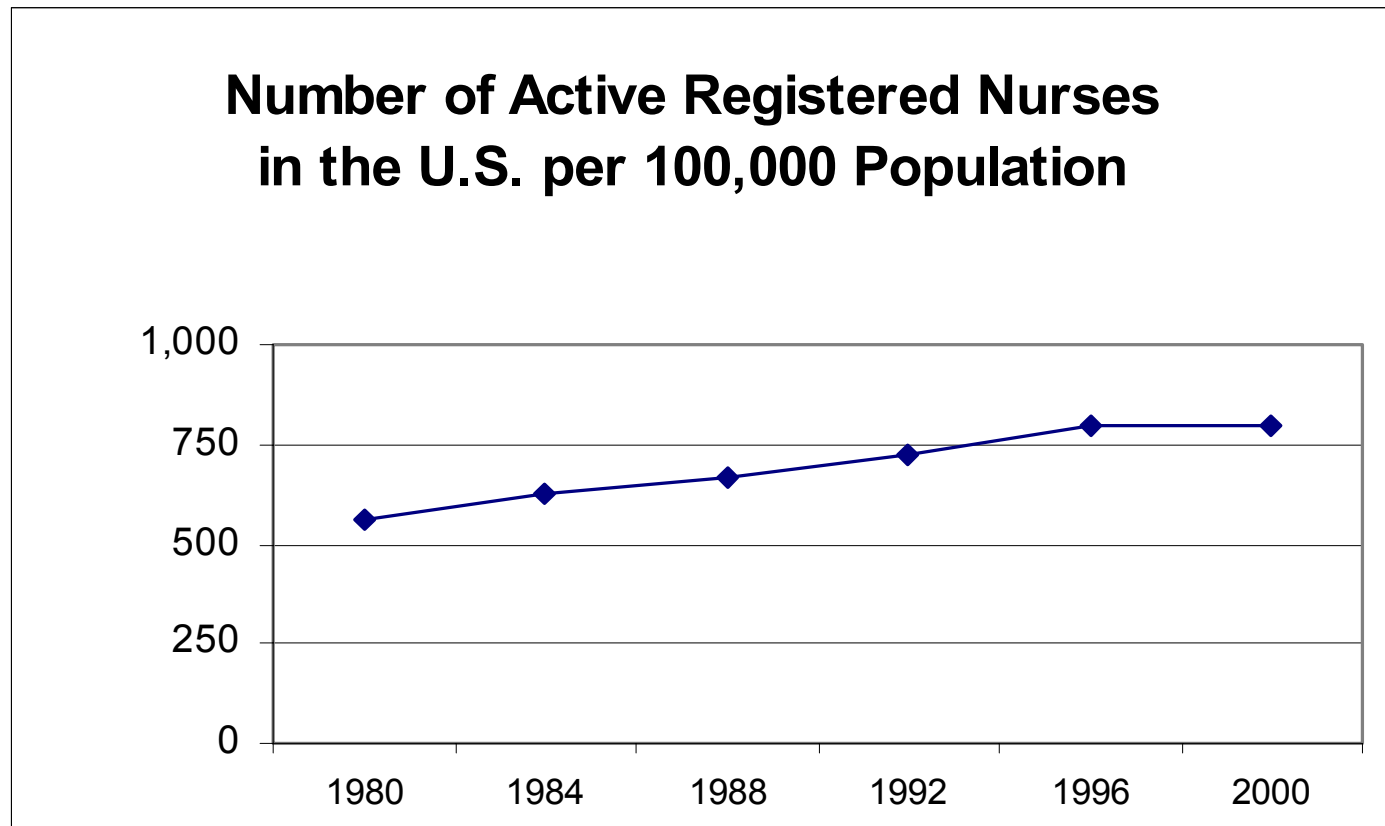
Over Half of RNs in the US Work in Hospital Settings

RN Employment by Setting, 2000



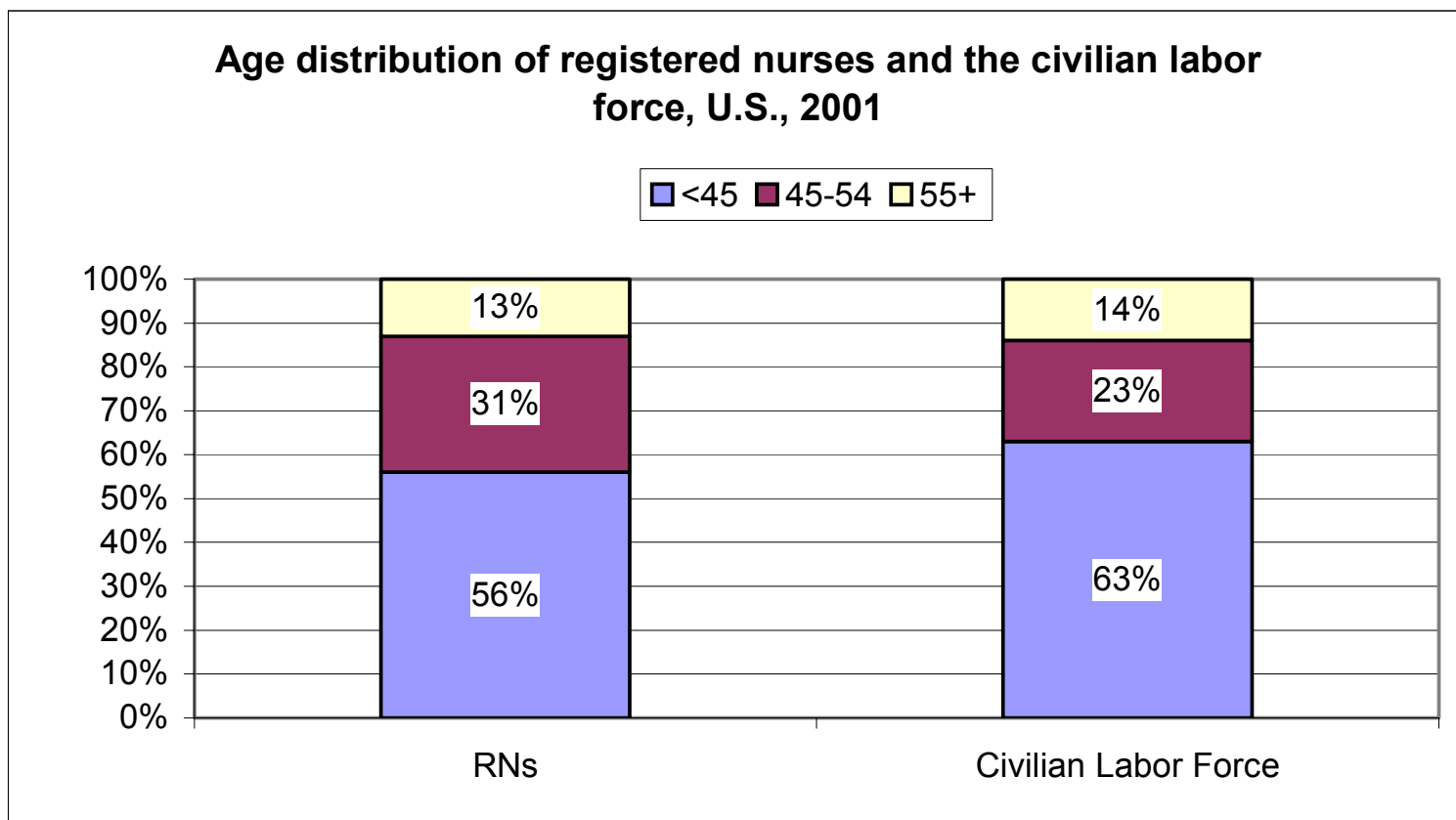
Source: "The Registered Nurse Population, March 2000", U.S. Department of Health and Human Services, Bureau of Health Professions, Division of

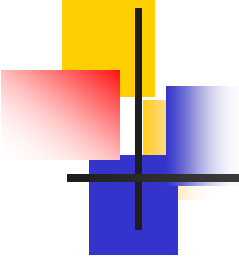
*Despite Increasing Demand for RNs, the
Number of Active RNs Per Capita Decreased
between 1996 and 2000*



**Source: DHHS, National Sample Survey of
Registered Nurses 2000 and Population
Division, U.S. Census Bureau.**

Registered Nurses Are Older Than the Overall Civilian Labor Force



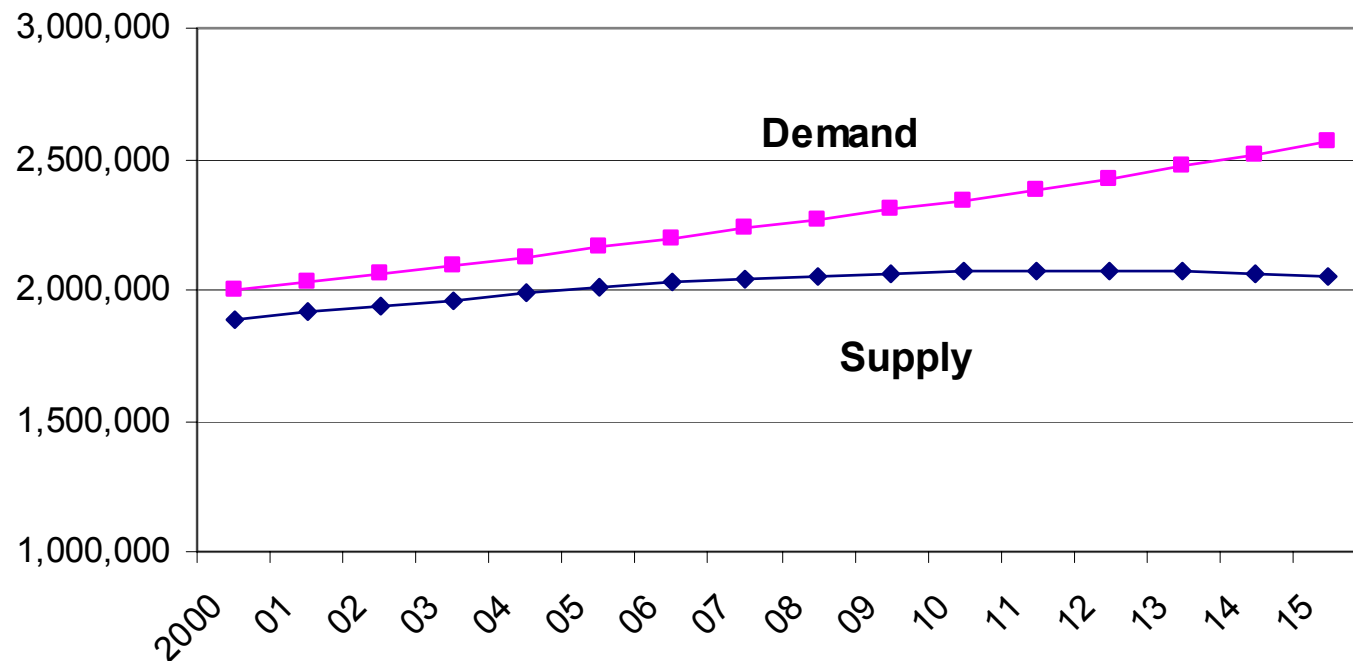


Is RN Training in Geriatrics Adequate?

- Geriatric education in RN education programs is relatively limited
 - Associate degree RN education programs currently have no geriatric-related curricular requirements
 - Curriculum recommendations for including geriatrics in bachelor's degree RN education programs have been developed, although not widely implemented

Growing Demand for RNs Will Worsen Shortages Over the Next Fifteen Years

National Supply and Demand Projections for FTE Registered Nurses: 2000 to 2015



Source: HRSA, National Center for Health Workforce Analysis, RN Supply and Demand



Will the Supply of RNs Meet Future Demand for Them?

- Between 2000 and 2010, BLS projects over 1 million RN job openings (new and replacement)
- In recent years, RN education program enrollments have risen, but that may not be sufficient to meet future demand
- If current trends continue, the number of RNs leaving the field will outnumber new entrants
- In 2000, 30 states were estimated to have shortages, but by 2020, the number of states estimated to have shortages will grow to 44.



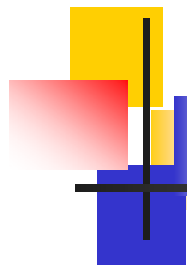
Factors That Will Influence the Adequacy of RN Supply to Meet Demand

- RN diversity
- RN retention
- RN faculty shortages
- Nursing career ladders
- Enabling technology
- Regulatory requirements



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.

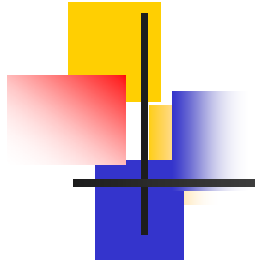


General Finding

Many Health Professions Are Aging Rapidly

	1989	1999	Change 1989- 1999
Median age			
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.



General Findings

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

- Health insurance reimbursement policies
- Emerging 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
for the Future?*



Key Stakeholders

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



Options for Responding to Workforce Shortages

- **Increase the pipeline** (educational programs, health and education sector partnerships, training initiatives, career ladders, marketing careers, etc.)
- **Improve retention** (wages, benefits, working conditions, increased education and training, etc.)
- **Reduce demand** (increase efficiency, new technology, shift delivery site)
- **Government Interventions** (Regulations, minimum staffing ratios, commissions, task forces)
- **Better data and information** (Regular reports/studies: supply, demand, use and distribution)



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



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



Planning for the Future

- Assure an adequate supply of well-trained health workers
- Increase knowledge and awareness of the needs of elderly patients
- Improve the quality of care
- Increase worker satisfaction
- Assure a more culturally competent and diverse workforce
- Develop more efficient and effective health care delivery system