Planning Assumptions for Testing a Resource Allocation Methodology

George Mason University

2/7/02

Purpose of Discussion About Assumptions

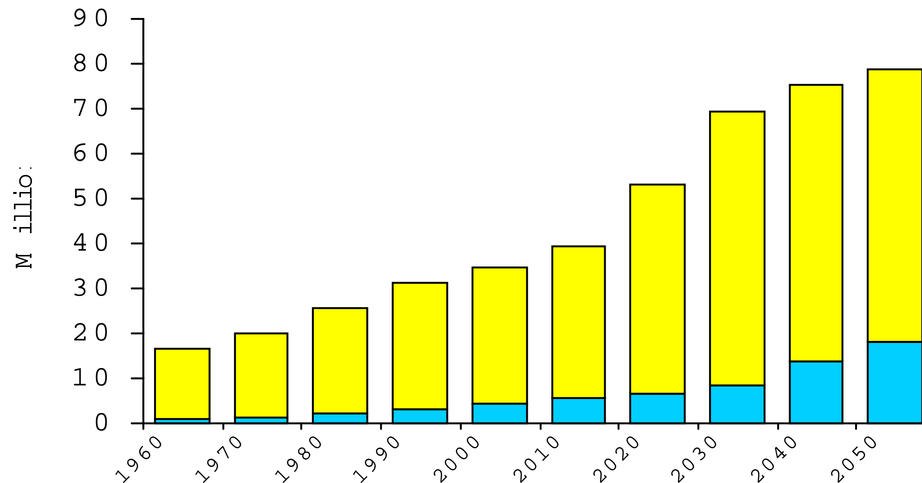
- Draft assumptions were developed from scanning available data (reference previous presentation of data sources) to identify key population and health system needs and moderating factors that should be used as the basis for developing the allocation formulae and scenarios for testing
- These initial observations are intended to stimulate discussion among panel members, to identify views about the population and health system needs and thus what Title VIII goals are indicated

Purpose and Use of Assumptions Cont'd

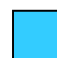
- Initial draft list is only partially complete for all factors identified and selected variables
- Based on expert judgment and selected data available, panelists should add, delete and modify items
- List developed from this meeting will represent the first draft planning assumptions

Selected Planning Assumptions

The Growth in the Number of Elderly Citizens Will Increase Requirements for Health Care Providers



Population 65 thru 84

 Population 85 and older

Health Professions Jobs Will Grow at Twice the Rate of All Occupations Through 2008

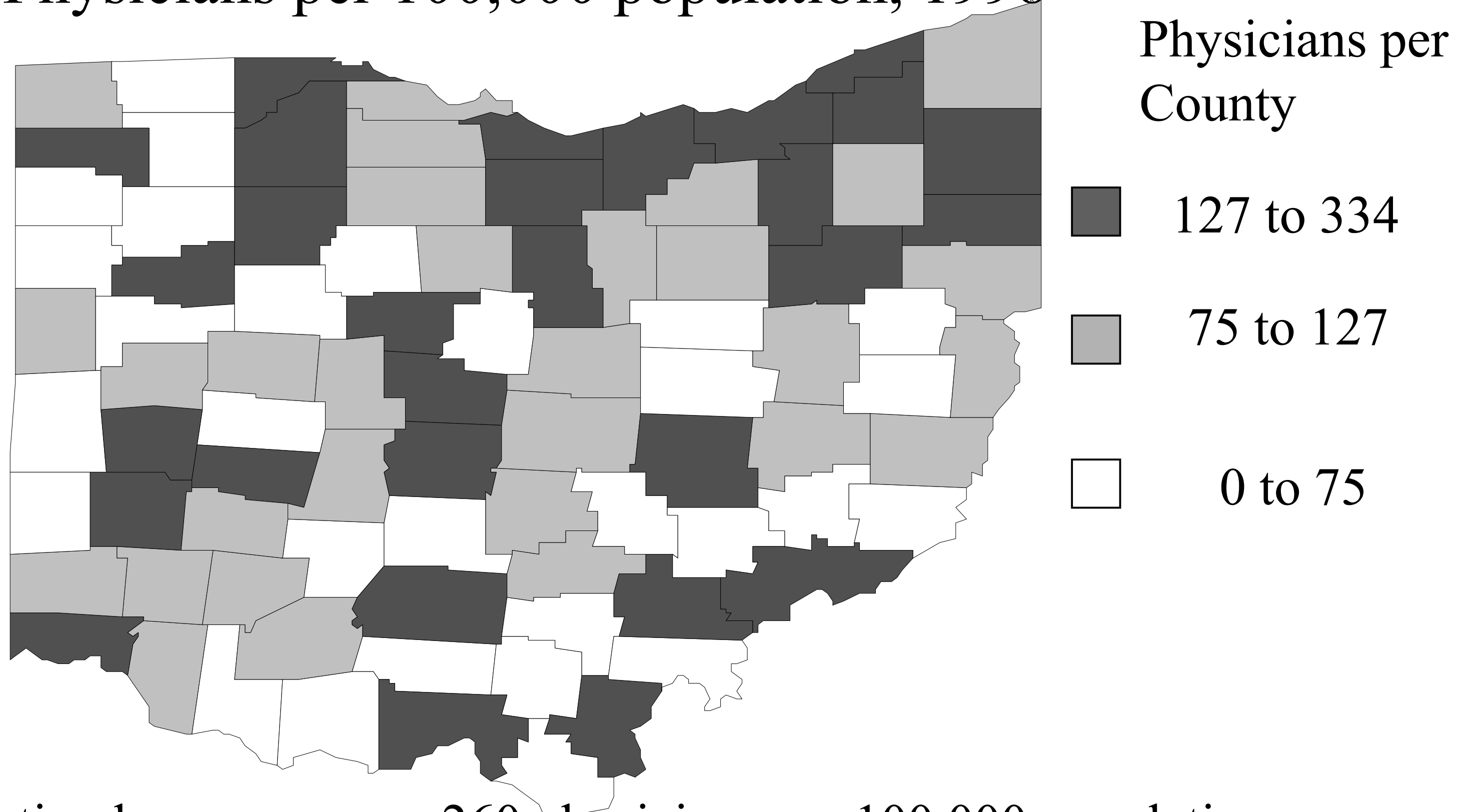
	1998	2008	Percent Change
Total U.S Employment	140,514	160,795	14%
Total Health Occupations	9,252	11,804	28%
Physicians	577	699	21%
Dentists	160	165	3%
Pharmacists	185	199	8%
Registered Nurses	2,079	2,530	22%
Therapists	529	703	33%
Health Technicians and Technologists	2,414	3,025	25%
Health Service Occupations1/	3,055	4,163	36%

1/ Includes such occupations as nursing aides, home health care aides, dental assistants, medical assistants, pharmacy aides, et al.

Source: Dept. of Labor, Bureau of Labor Statistics, Occupational Employment Statistics

Supply versus Distribution?

Physicians per 100,000 population, 1998

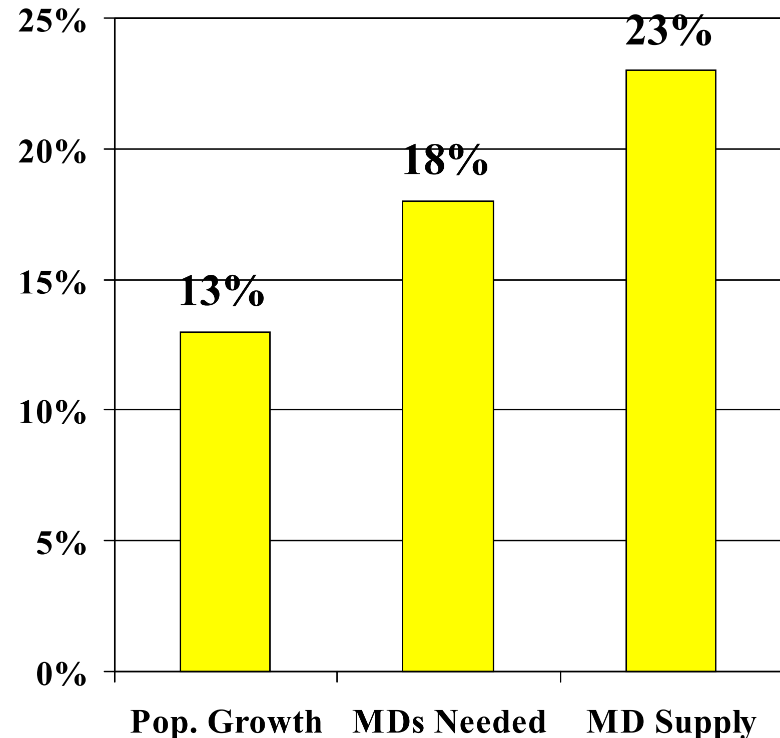


The Nation has an average 260 physicians per 100,000 population

For the U.S. as a Whole, the Physician Supply Appears Adequate.

Between 2000 and 2015:

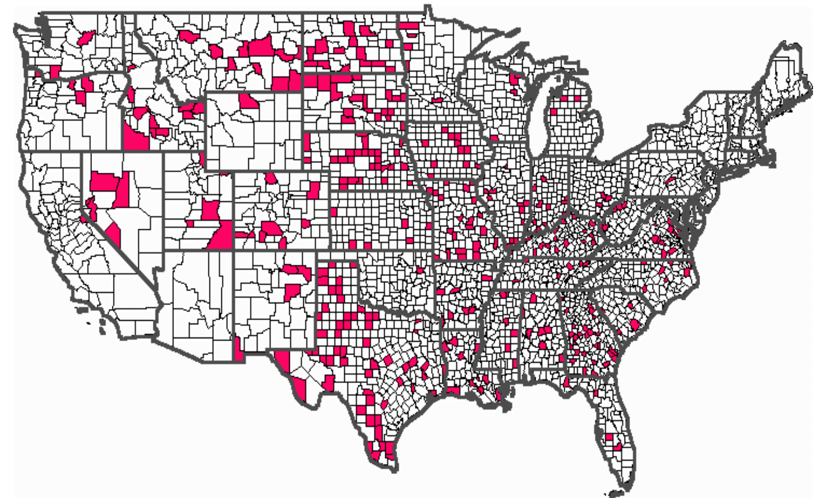
- The population will grow 13%.
- The need for physicians will increase 18% due to medical advances and an aging population.
- Constraining need is greater use of non-physician clinicians, e.g. PAs
- Physician supply will increase 23%.
- Most of the increase will come from foreign trained physicians entering the U.S. for residency training and then stay.



Source: HRSA, BhPr

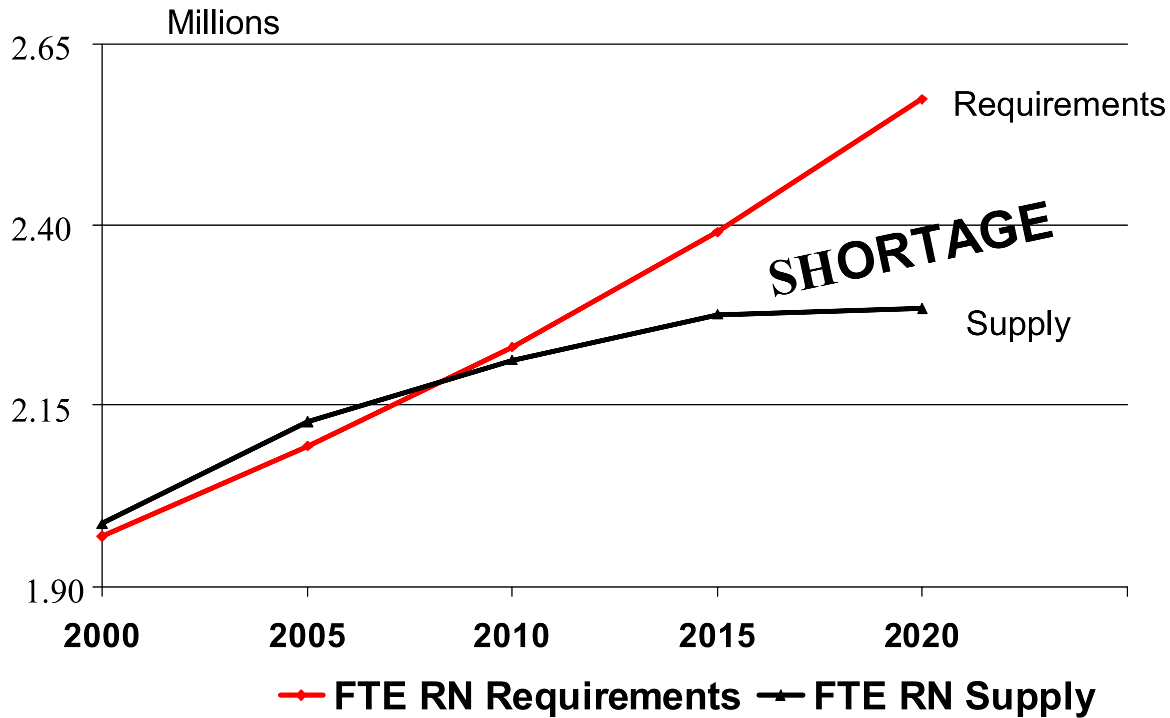
Workforce Distribution Remains a Problem!

- There are 2,905 HPSAs*
- Most are predominantly rural counties
- 50 million people live in HPSAs; 29 million are underserved.
- 13,000 primary care physicians are needed to alleviate the maldistribution



* Health Professions Shortage Areas

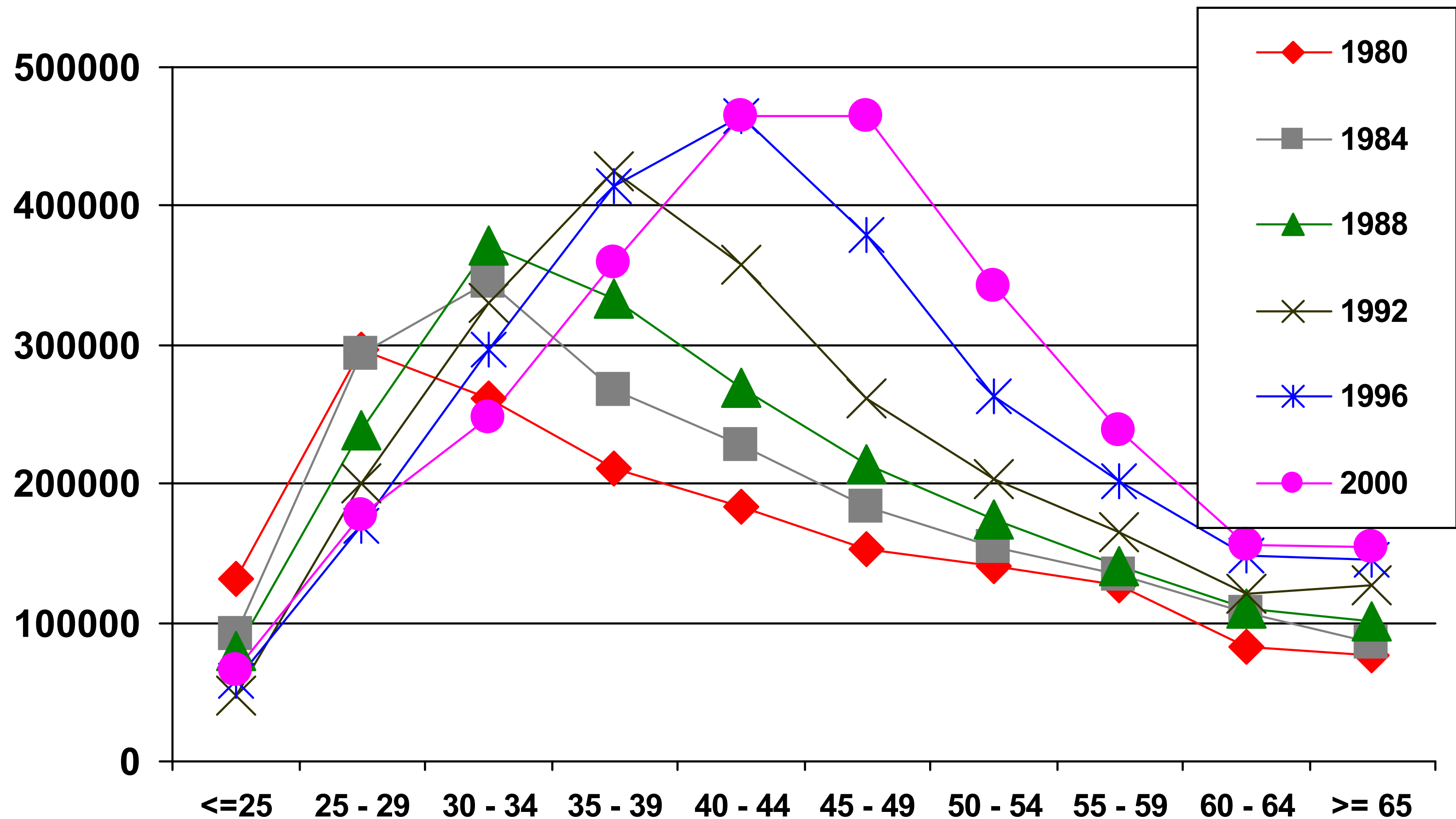
Projections of Supply and Requirements for Full-time Equivalent RNs, As of December 31, 2000-2020



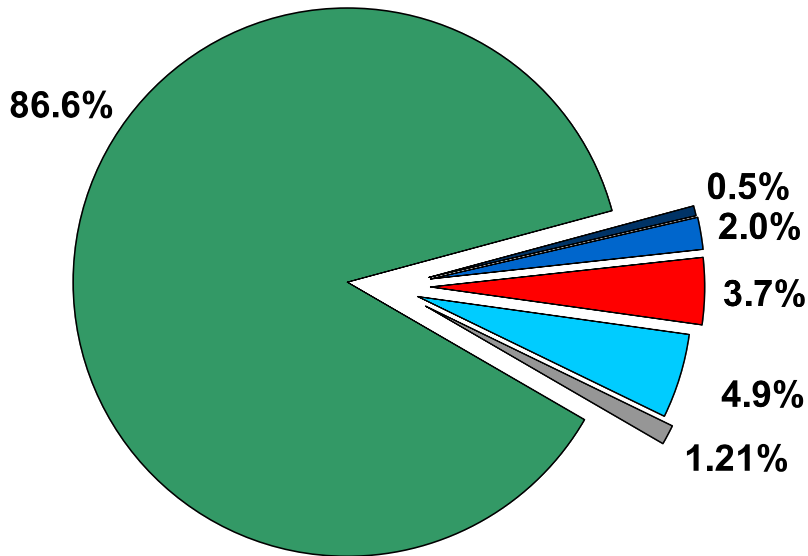
Source: HRSA, DoN

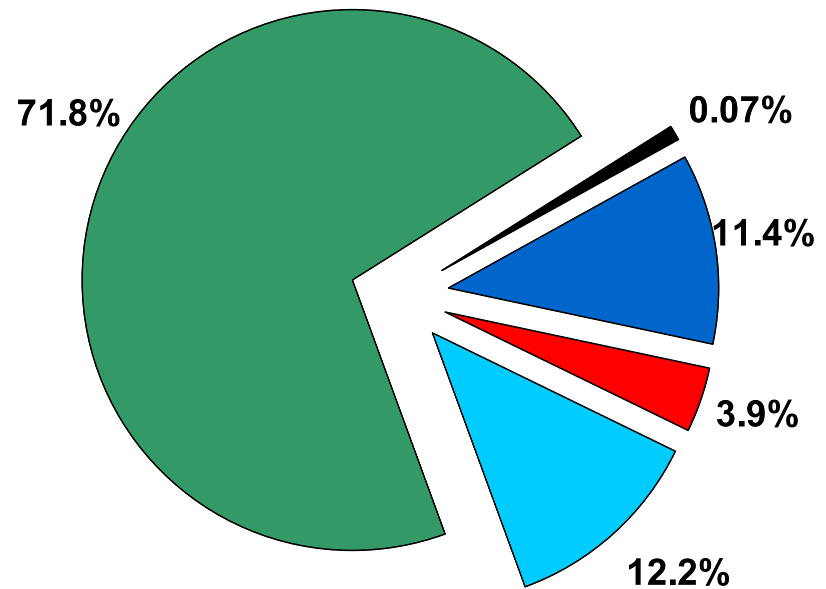
2/7/02

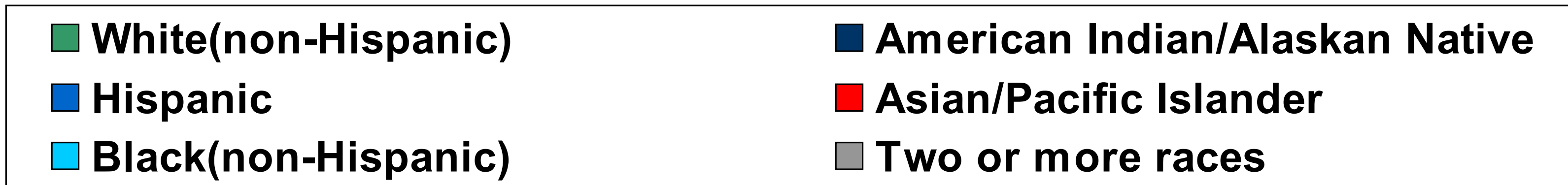
Age Distribution of the Registered Nurse Population, 1980-2000



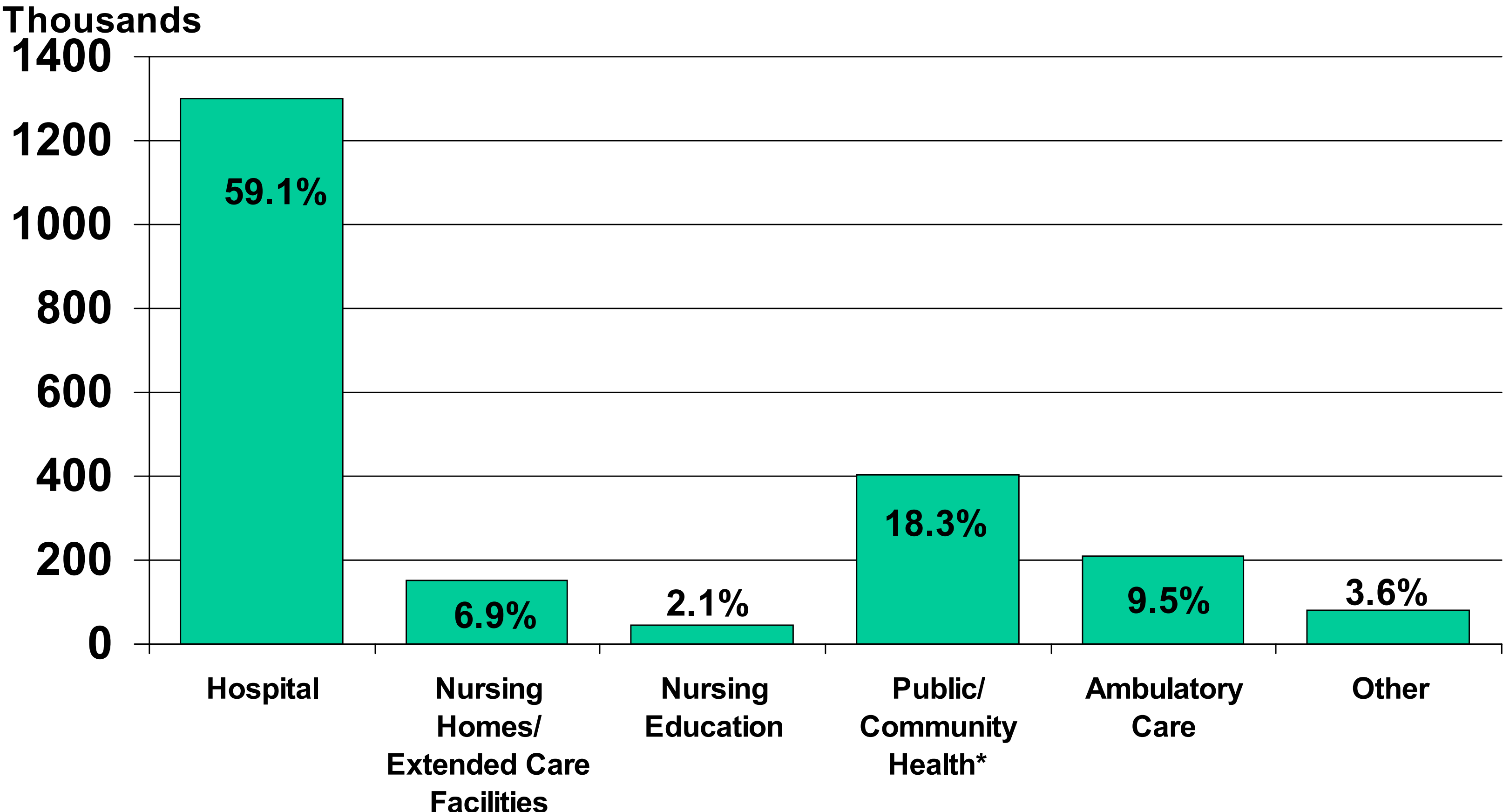
Distribution of Registered Nurses by Race/Ethnic Background, March 2000





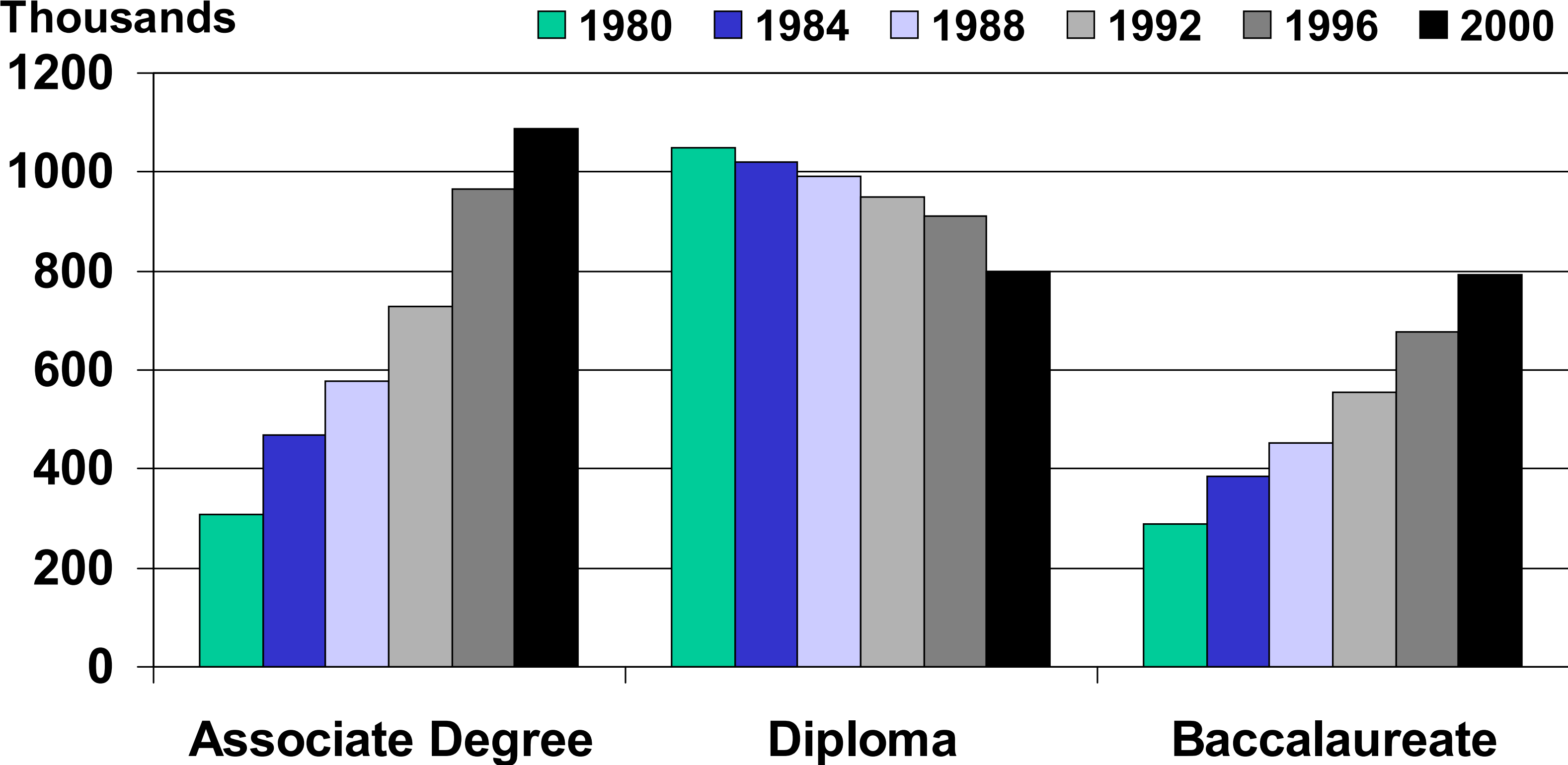


Employment Settings of Registered Nurses, 2000

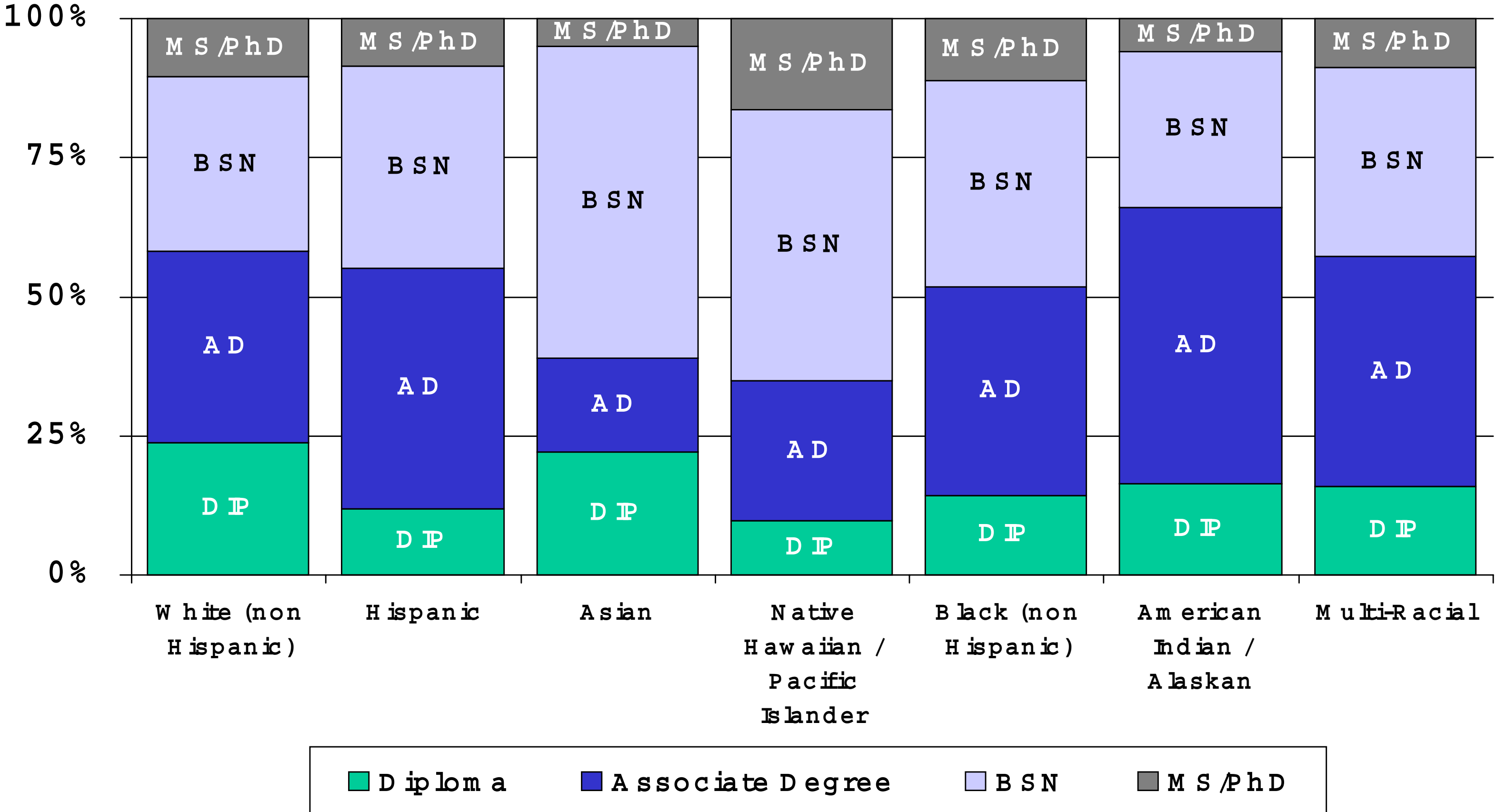


*includes occupational and school health settings

Basic Nurse Education of Registered Nurse Populations, 1980-2000

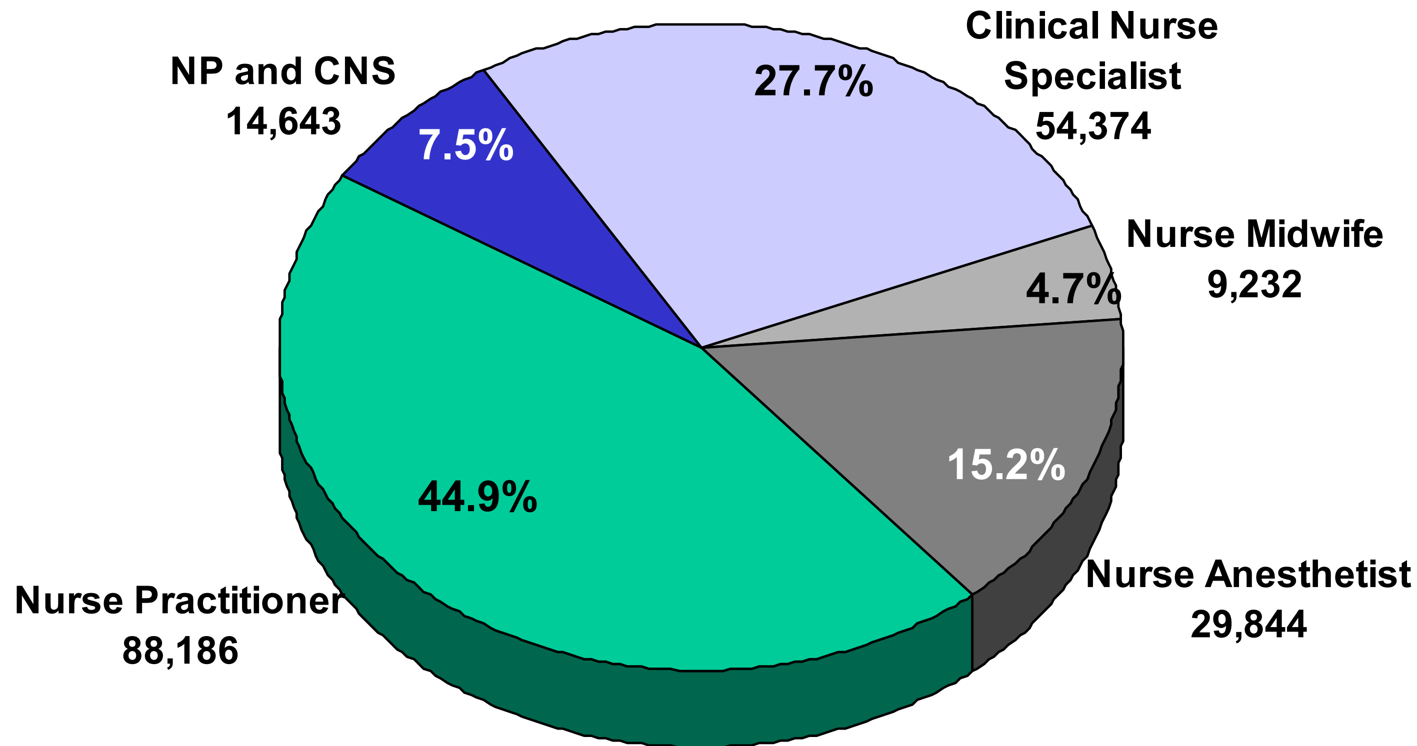


Distribution of Registered Nurses in Each Racial/Ethnic Group by Highest Preparation, March 2000

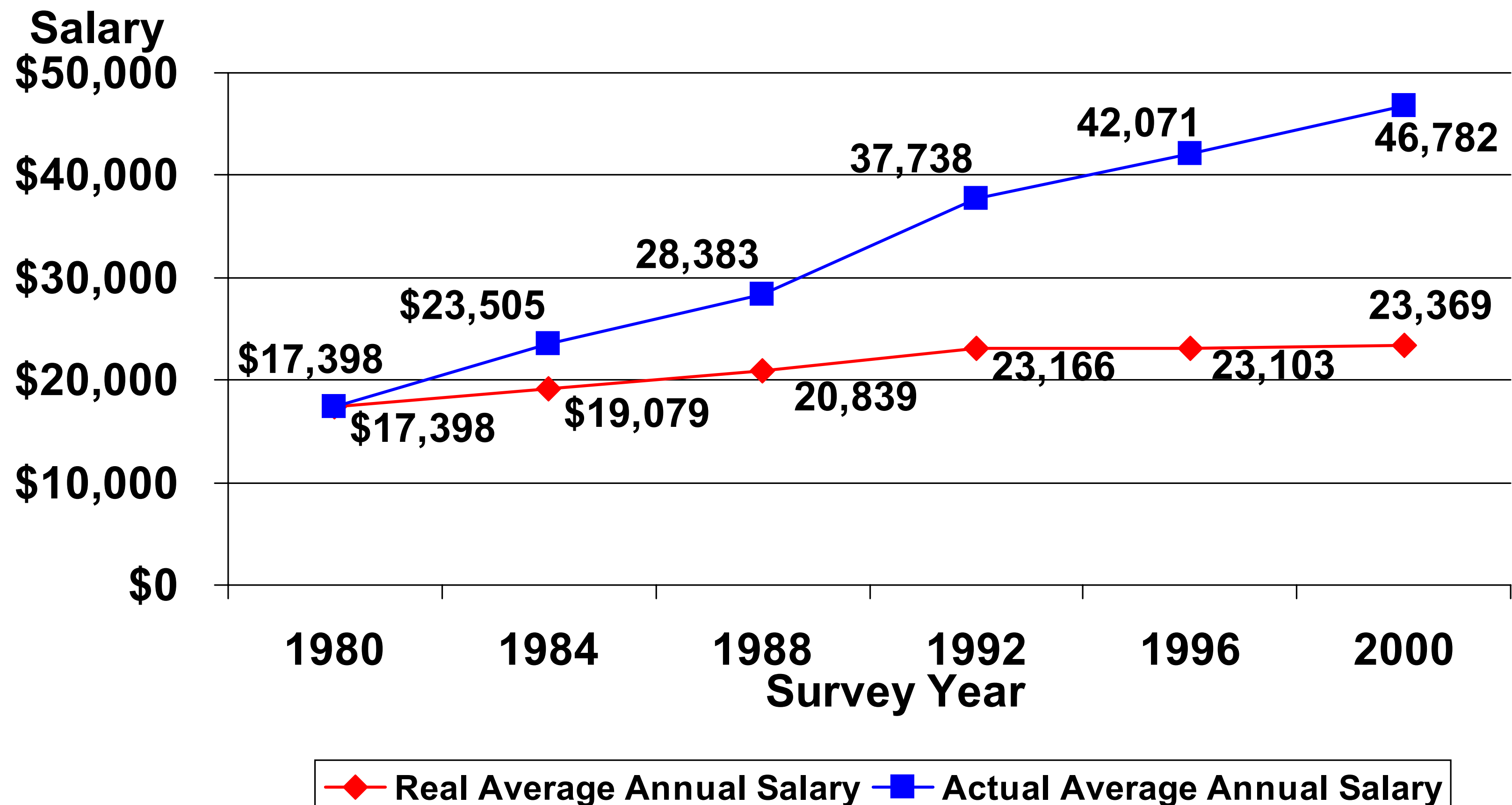


2/7/02

Registered Nurses Prepared for Advanced Practice, March 2000



Actual and "Real" Average Annual Salaries of Full-Time Registered Nurses, 1980 – 2000



Initial Planning Assumptions Inclusive of:

- Healthcare consumer trends
  - Population demographics
- Technology Impact
- Cost and clinical performance
- Managed care trends
- Workforce trends

Economic Conditions

- Healthcare expenditures are rising again, and neither managed care nor the government seem able to slow down the rise in health spending.
- Medical cost inflation in the next five years will be driven by the aging of the population, the rising costs of health plans and pharmaceuticals, and a tight labor market that will increase healthcare wages.

Cont’d

- Inpatient days rise; patients are older, sicker
- Hospital finances tighten
- Hospitals continue to cut costs
- Continued Maldistribution of the Health workforce
- Nursing staffing shortages in all sectors and roles will worsen as a generalized nursing shortage increases

Assumptions About Healthcare Consumers

- Informed consumers will demand the latest drugs and treatments.
- The aging of America will drive up utilization of hospitals and ambulatory care.
- The racial & ethnic diversity of the US population is increasing

Assumptions about the Impact of Technology

- The use new genetic science, new pharmaceuticals, gene-based diagnostic tests, and customized gene therapies will begin appearing (just the beginning). New medical advances will include enhanced imaging modalities, implanted medical devices, and “information therapy” available on the internet.

Technology Cont'd

Genetic therapies are in clinical trials now.

Clinical centers of excellence focus provider competition on quality and technology.

Capabilities of technology are increasing yet adoption of new technology for efficiency purposes is under-realized (cost and user factors)

Technology advances impacts professional roles and need for on-going education

Assumptions about the Cost and Effectiveness of Care

- Hospitals' financial outlook will remain mixed; profits may slowly improve
  - Financial impact in rural areas may be worse
- Hospital closings could rise to 50 per year.

Source: AHA, Trend Watch

Cost and Effectiveness of Care Cont'd

Declining revenues and rising pharmaceutical costs and wages will create pressures for cost cutting by hospitals and health systems.

Quality is a business strategy a mechanism to improve outcomes by reducing medical errors (can lower clinical costs and improve efficiency).

In hospitals, new role of 'hospitalist' is emerging as a strategy to improve efficiency and lower the costs of hospitalized patients.

Assumptions about Managed Care

HMO enrollment is flat or declining across the nation as employers react to higher premiums, while PPO enrollment rises above 90 million.

Rate increases for Medicare HMOs may be too late to prevent many plans from exiting the Medicare risk market.

Market-dominant hospitals and medical groups are challenging HMOs for better payments, and winning.

Assumptions about the Health Workforce

- A tight labor market and the aging of the workforce make "human capital" all the more scarce and valuable in the twenty-first century.
  - In a time of scarcity, nurses and physicians are looking for more economic opportunity and support for quality patient care.
  - Union activity among healthcare workers is rising, demands focus on quality as well as wages

Workforce Assumptions Cont'd

Staffing shortages will get worse with the aging of the nurse workforce.

The physician surplus could become a shortage, if 40 percent of physicians cut back hours or retire early.

.

Scenario Planning

The future is the result of making decisions based on sets of assumptions. Over time, we learn the impact of today's decisions.

Scenarios can be used to test the impact of funding allocation decisions in future years.