

# Changing Demographics and the Implications for Physicians, Nurses, and Other Health Workers

Academy Health Poster Presentation June 6, 2004

by

*Tim Dall*

The Lewin Group

Funded by

National Center for Health Workforce Analysis, BHPPr, HRSA

*Contributors: Marilyn Biviano, Steve Tise, James Cultice*

Report available at <http://newsroom.hrsa.gov/NewsBriefs/2004/workforcetrends.htm>

# Research Objective

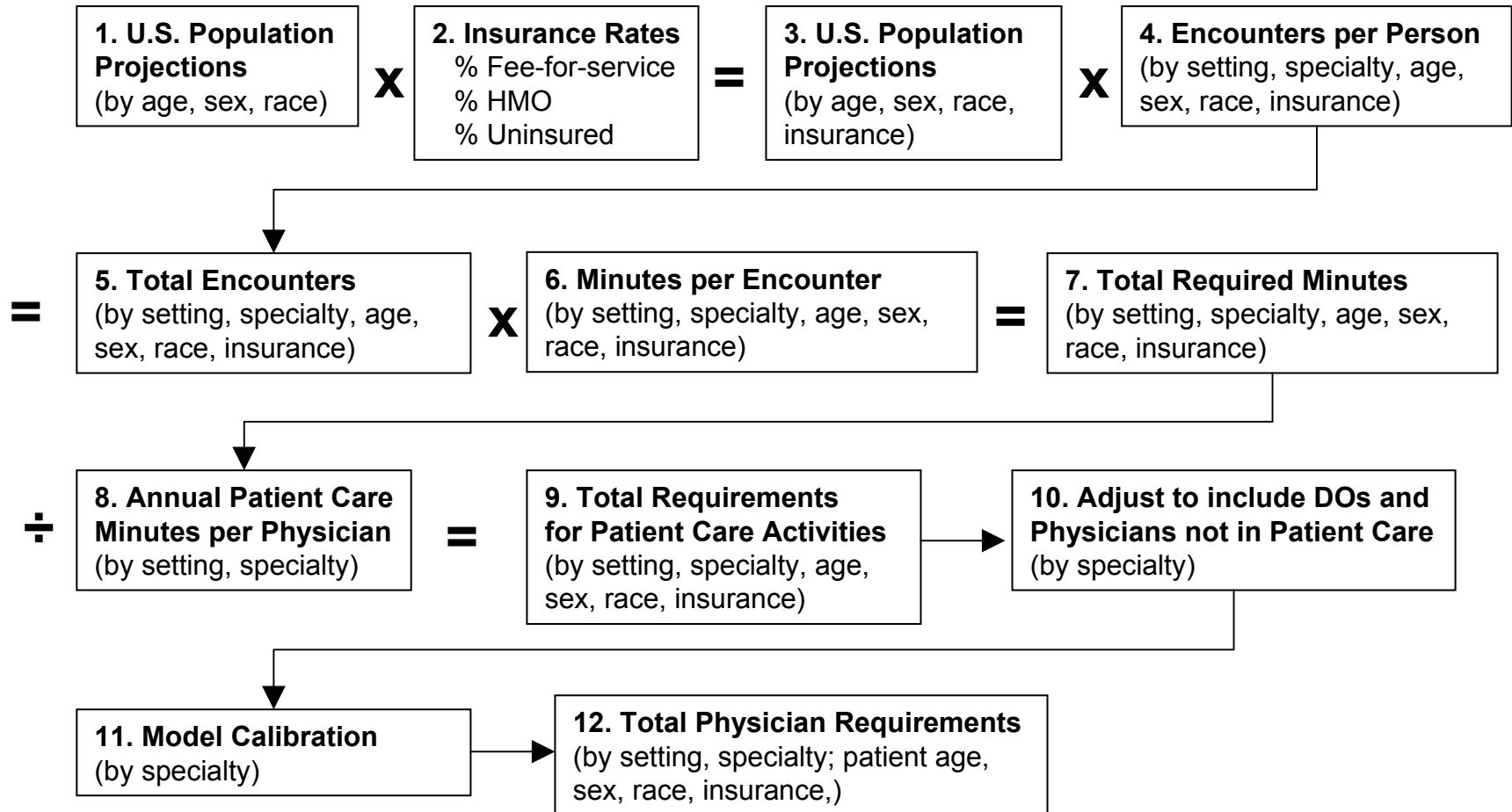
- Analyze health workforce implications of
  - A growing population that is projected to increase approx. 18% between 2000 and 2020
  - An aging population that requires more health care services at a time when the health workforce is also aging and nearing retirement
  - The growing racial and ethnic diversity in the U.S.

# Approach

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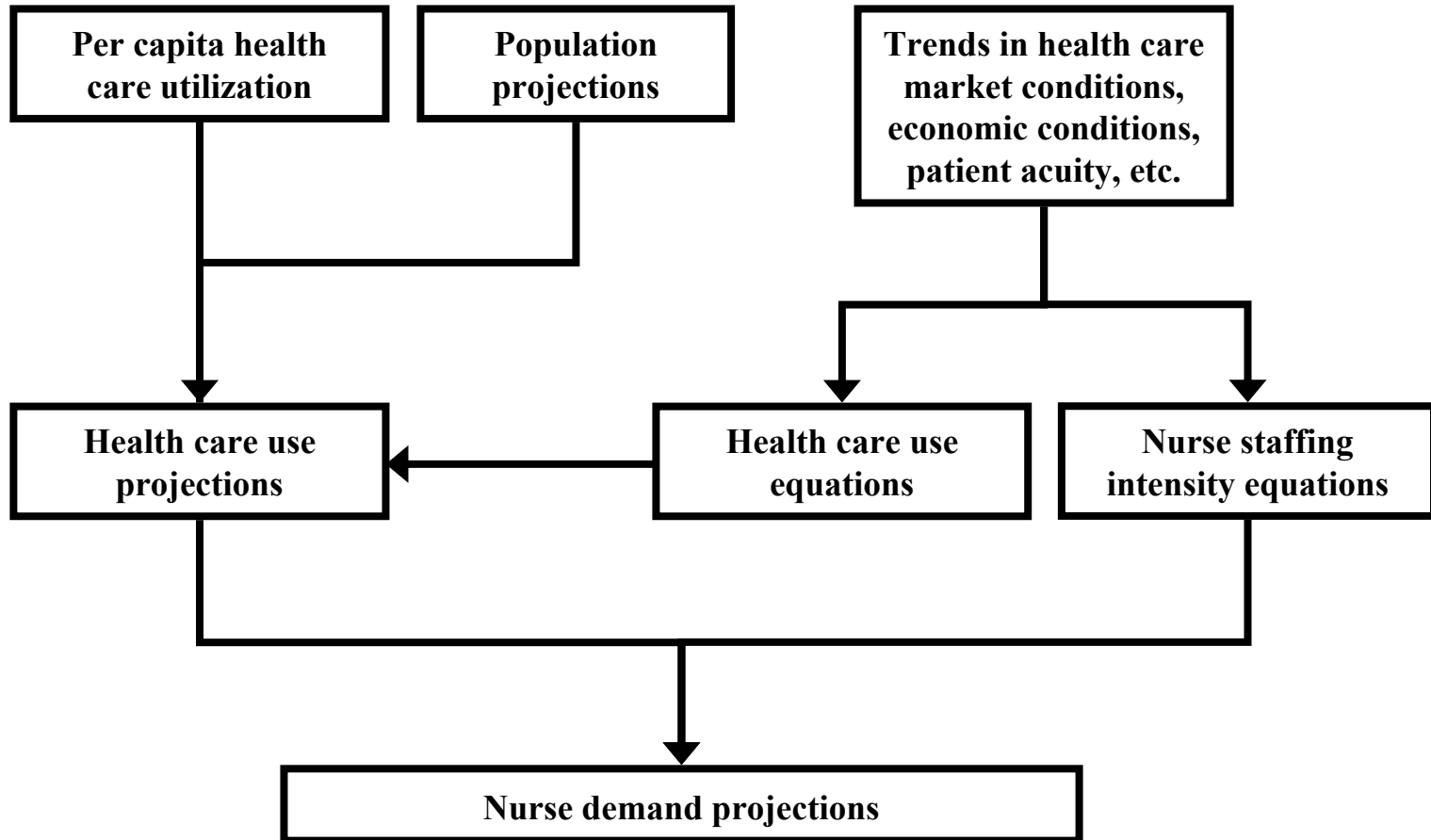
- This study combines a comprehensive review of the literature with analysis of national healthcare databases and model building
- Population Studied: Physicians, nurses and other health workers in the U.S, as well as the population that uses healthcare services

# Physician Aggregate Requirements Model Projects Demand Through 2020



# Nursing Demand Model Projects

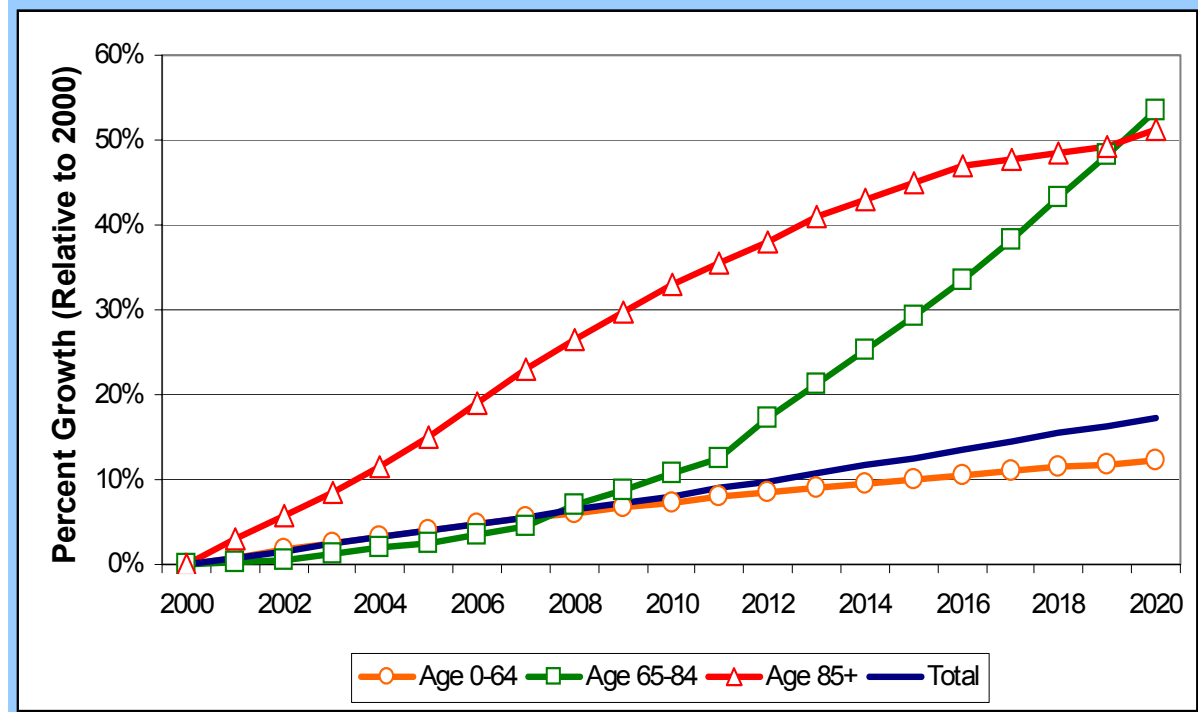
## Demand Through 2020



# The U.S. Population is Growing, Especially the Elderly Population

- Fastest growing age group is the age 85+ population
- Second fastest growing age group is the age 65-84 population

Population Growth: 2000 to 2020,  
by Age Group

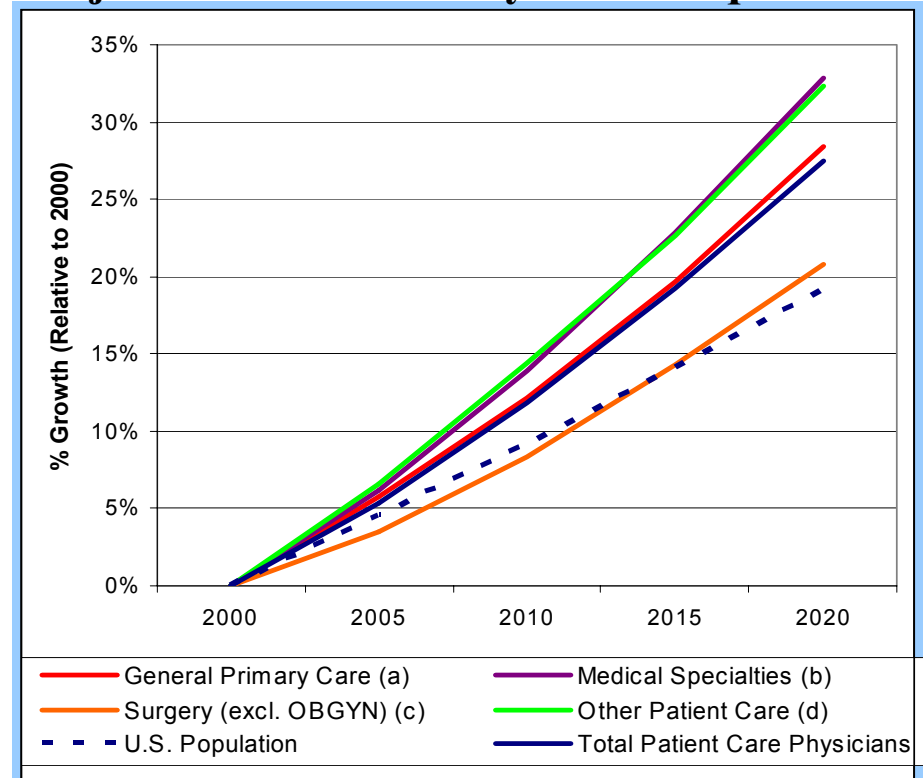


Source: Modified version of Census Bureau middle series projections

# Growth and Aging of the Population Increases Demand for Physician Services

- Growth in demand will vary by specialty
  - Demand for non-surgical specialists increases more rapidly than demand for generalists
  - Projected demand grows fastest for specialties that disproportionately serve the elderly (e.g., cardiology) relatively to specialties that serve the non-elderly (e.g., pediatrics)

**Projected Growth in Physician Requirements**

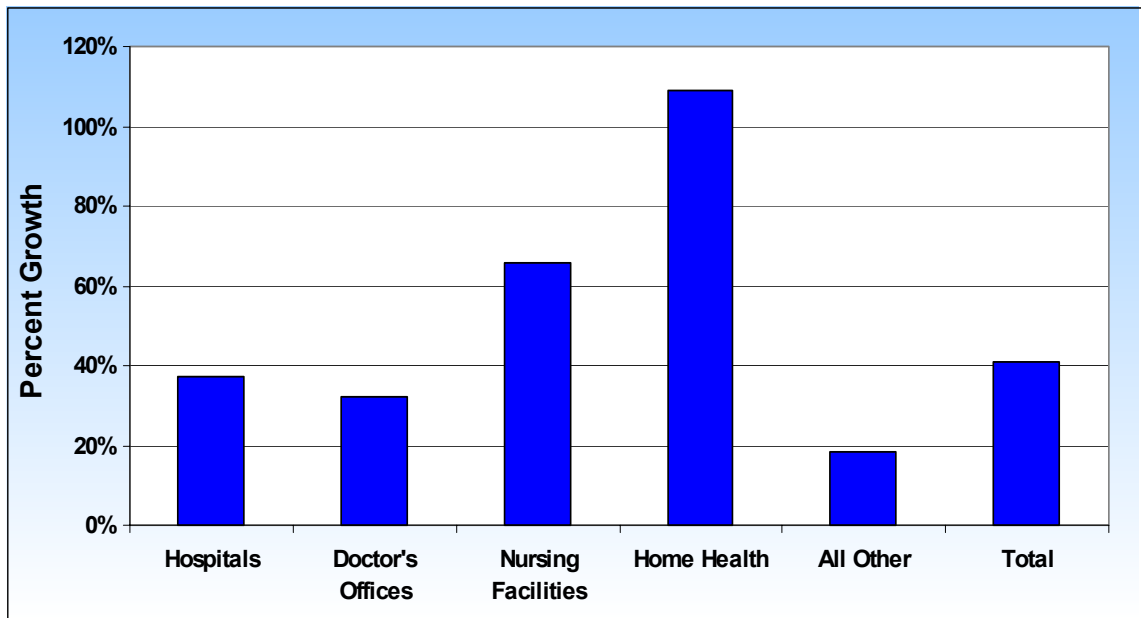


<sup>a</sup> GP & FP, General Internal Med., Pediatrics; <sup>b</sup> IM Subspecialties, Cardiovascular Disease, Other Medical Specialties; <sup>c</sup> General Surgery, Otolaryngology, Orthopedic Surgery, Urology, Ophthalmology, Other Surgical Specialties; <sup>d</sup> Psychiatry, Anesthesiology, Emergency Medicine, Radiology, Pathology, Other Specialties

# Growth and Aging of the Population Increases Demand for Registered Nurses

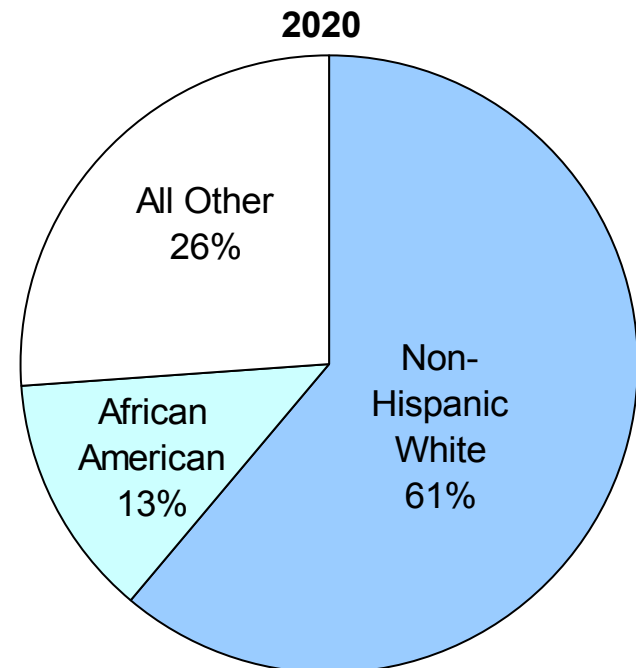
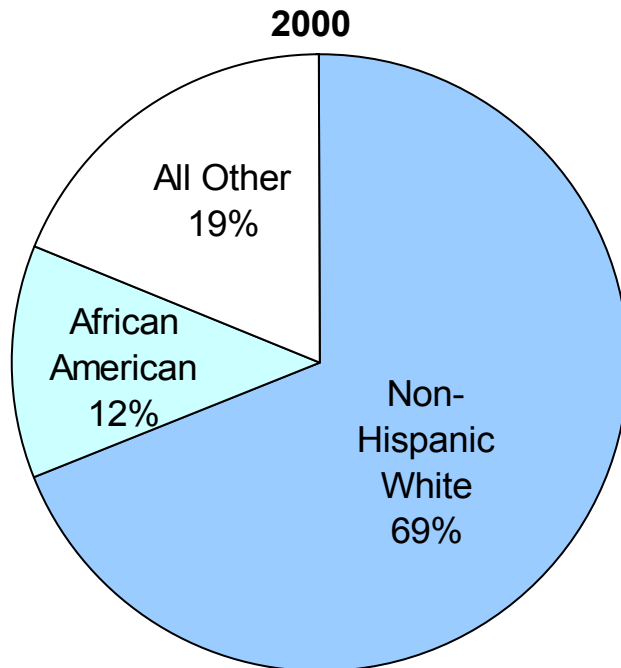
- Demand grows fastest in settings that predominantly serve the elderly
  - 109% in home health
  - 66% in nursing facilities
- Significant growth in demand is projected for all settings
  - 41% overall
  - 37% in hospitals
  - 32% in doctors' offices
  - 18% in all other settings

**Projected Growth in Demand for  
FTE RNs: 2000 to 2020**



# Racial and Ethnic Diversity is Increasing in the U.S.

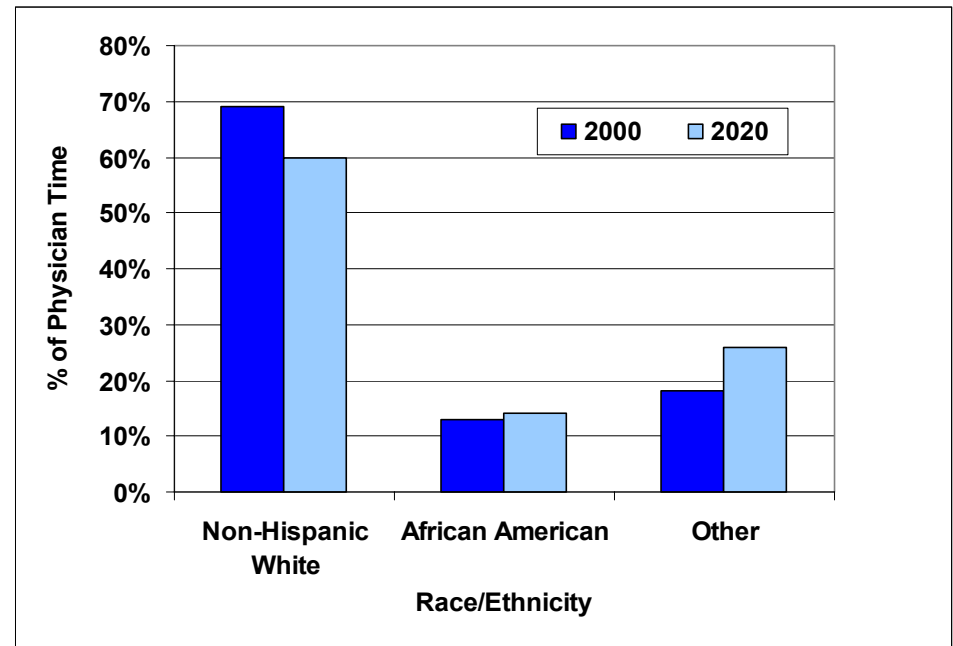
- Minority population projected to rise from 31% to 40% of population between 2000 and 2020



# Minorities Constitute A Growing Proportion of Total Demand for Physician Services

- Demand for culturally competent health care will rise
- The literature suggests that minority physicians have a greater propensity than do non-minority physicians to practice in urban communities designated as physician shortage areas

**Distribution of Physician Time by Patient Race/Ethnicity**



# The Racial/Ethnic Composition of Patients Varies by Physician Specialty

Specialty	2000 (Estimated)			2020 (Projected)		
	Non-Hispanic White	African American	All Other	Non-Hispanic White	African American	All Other
<b>Total Patient Care Physicians</b>	<b>69%</b>	<b>13%</b>	<b>18%</b>	<b>60%</b>	<b>14%</b>	<b>26%</b>
General Primary Care	72%	13%	15%	63%	14%	24%
Internal Medical Subspecialties	71%	13%	16%	62%	13%	25%
Surgical Specialties	71%	12%	17%	62%	12%	26%
Other Patient Care Specialties	64%	15%	21%	53%	15%	32%
<b>Specialties Serving a Disproportionate Number of Minority Patients</b>						
Pediatrics	61%	16%	23%	51%	17%	32%
General Surgery	70%	9%	22%	59%	9%	32%
Obstetrics/Gynecology	66%	17%	17%	57%	18%	25%
Emergency Medicine	47%	38%	16%	39%	39%	22%
<b>Total U.S. Population</b>	<b>69%</b>	<b>12%</b>	<b>19%</b>	<b>61%</b>	<b>13%</b>	<b>26%</b>

# Conclusions

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- As the U.S. population ages
  - Health workers that disproportionately provide services to the elderly will experience the fastest growth in demand for their services
  - Many health professionals will retire about the same time that demand for their services is increasing
  - The declining proportion of the population age 18 to 30 raises concerns regarding the nation's ability to attract a sufficient number of new health workers

# Conclusions

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- Demand for health care services by minorities is projected to rise, both in terms of total volume and percent of volume, increasing demands for culturally competent care
- Geographic differences in population growth and determinants of health worker supply and demand highlight the importance of developing models that can provide state-level and substate-level workforce projections

# Implications

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- The rise in health care utilization associated with the rapid increase in the elderly population will cause increased pressures to control health care costs
- Efforts to control costs will likely decrease both the supply of and demand for health workers
- While many programs may have prevented further decreases, minorities continue to be underrepresented in many medical professions