

U.S. Plans to Increase the Medical Workforce

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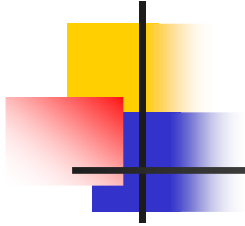
Chair, Department of Community and Family Medicine

Duke University Medical Center

Chair, Council of Academic Societies, AAMC

North Carolina Institute of Medicine

February 13, 2006



Data From

Edward Salsberg
Center for Workforce Studies
Association of American Medical Colleges

Washington DC,
February, 2006



Overview of Presentation



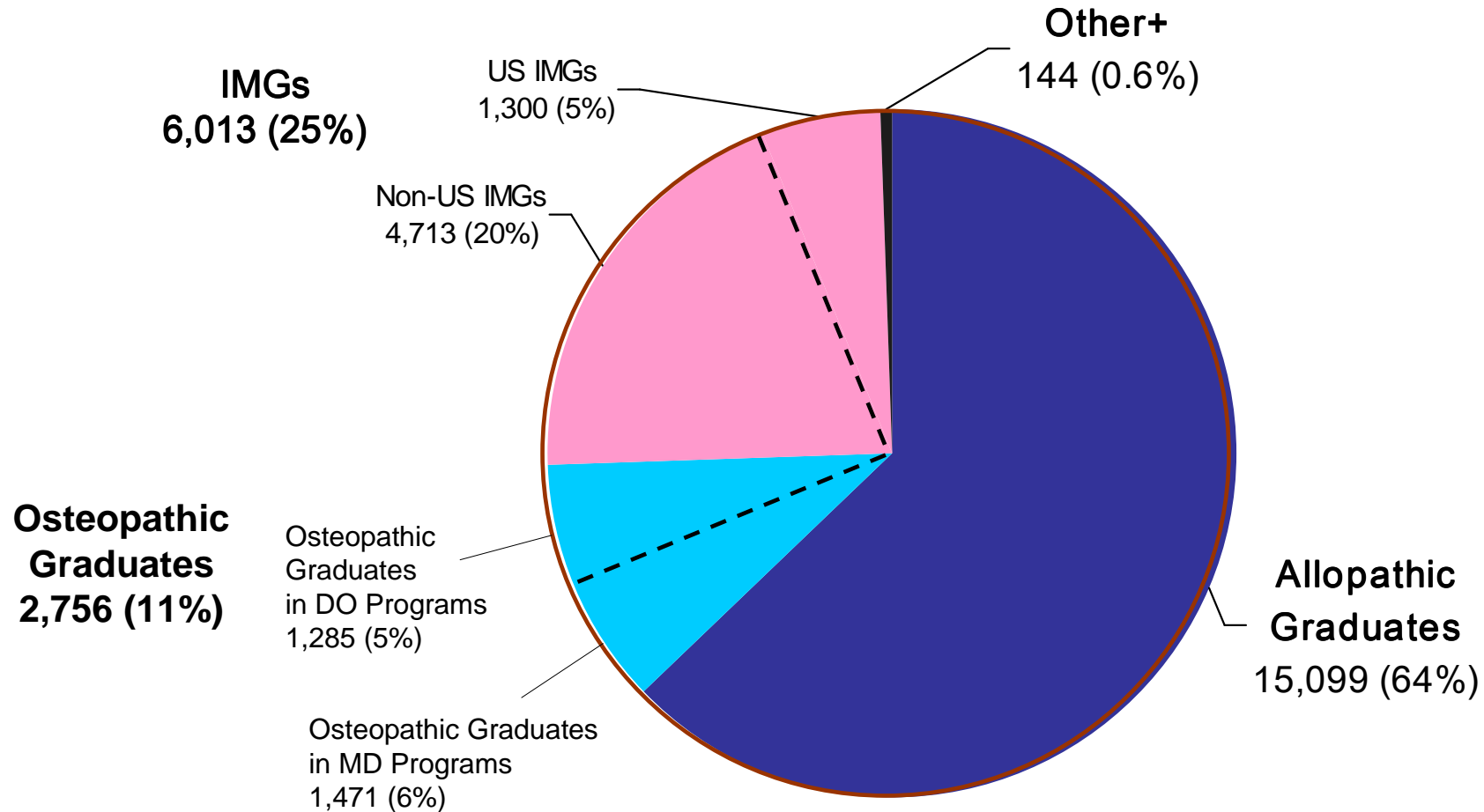
Part I – Update on the Medical Workforce

Part II – Issues in Expanding Enrollment

Part III – Shift to New Models of Care

Number and Source of Physicians Entering Training in 2004

24,012 Entered MD and DO Training in 2004

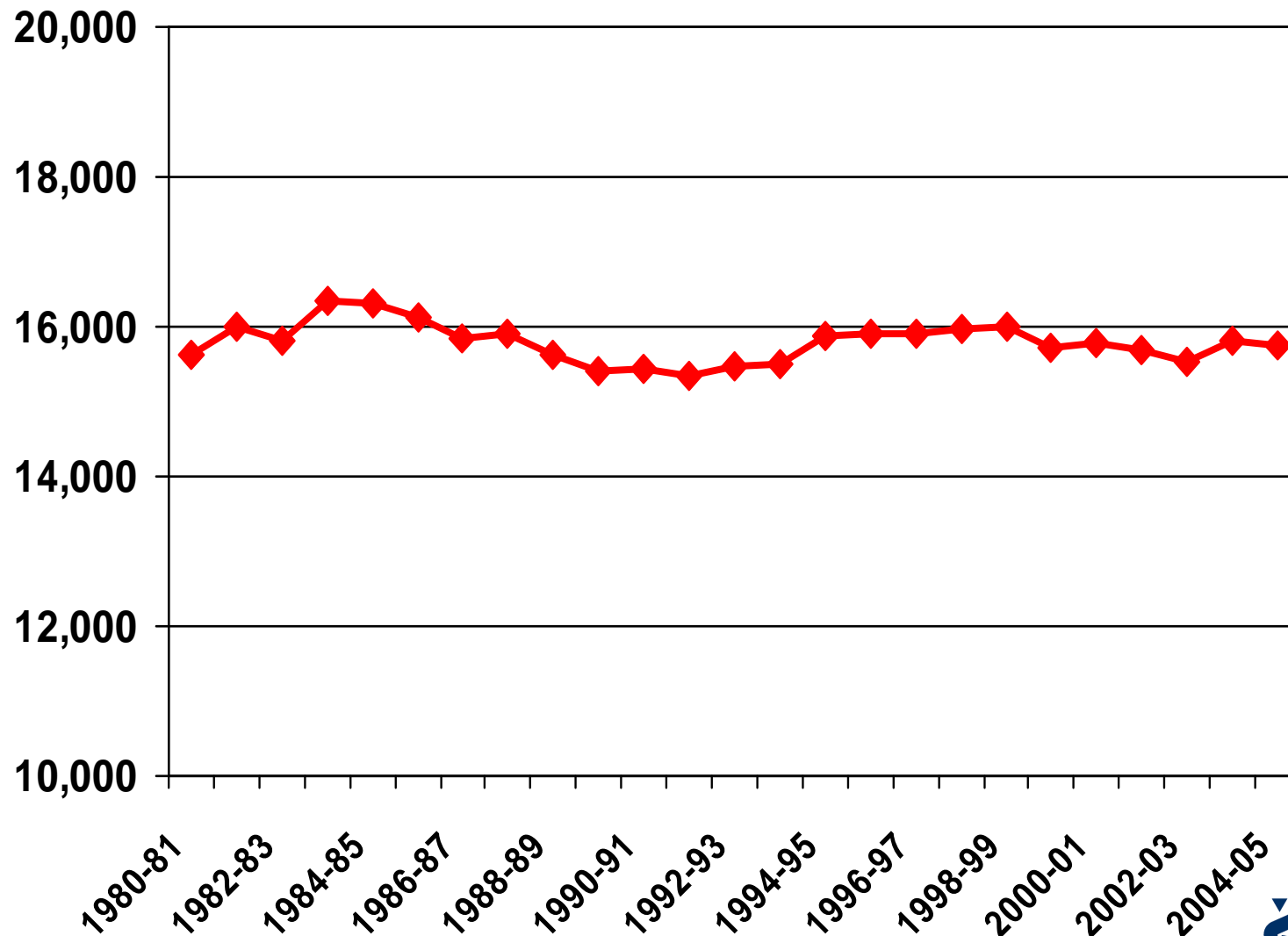


* Total IMGs = 6,013; Distribution among US and Non-US IMGs is estimated.

+ Includes Canadian Graduates (72)

Source: AAMC GMETrack and AOA Master File

Allopathic Graduation Trends

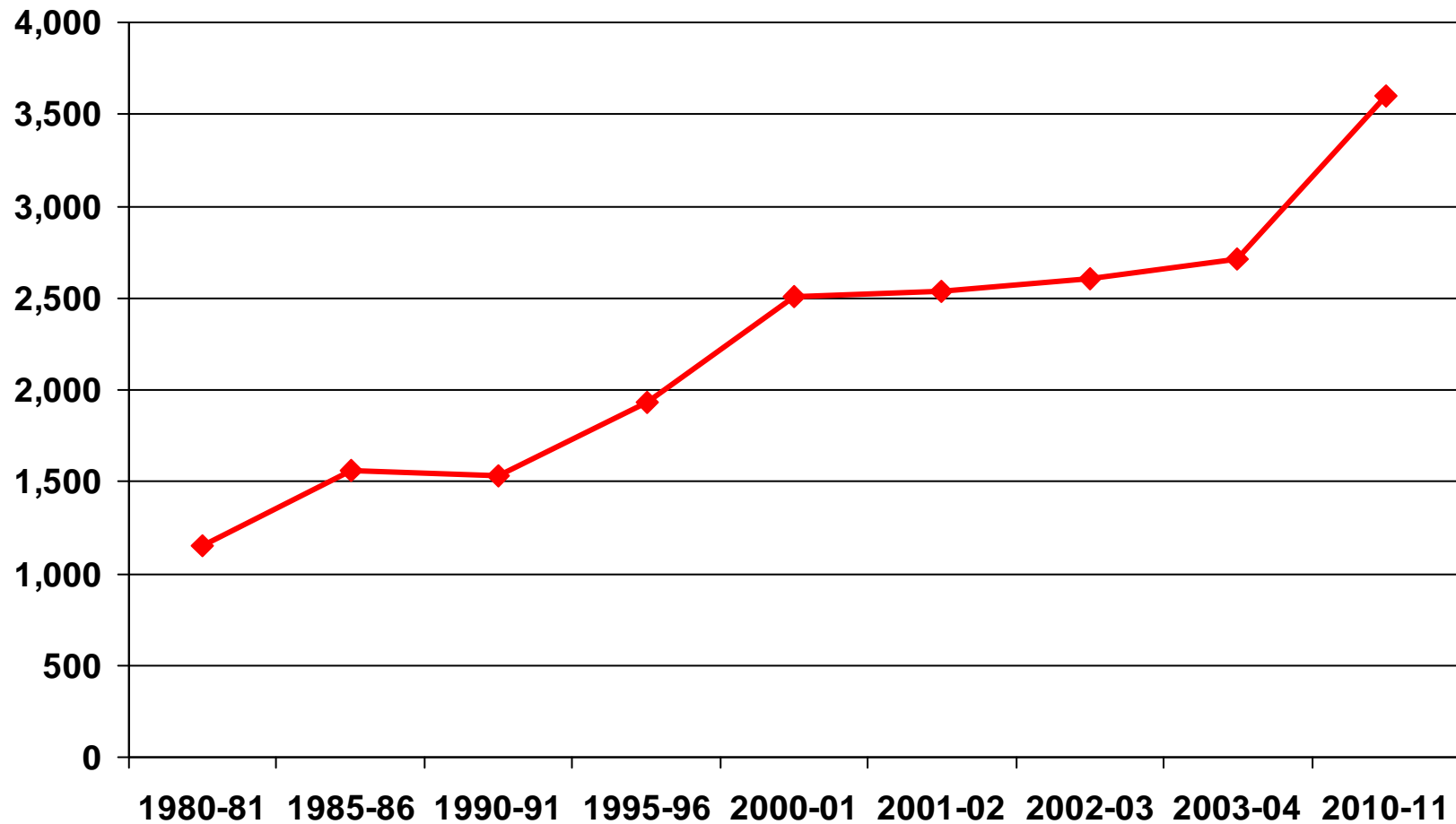


Source: AAMC Data Book, AAMC Facts

Prepared by AAMC, Center for Workforce Studies, Jan 2006



Osteopathic Graduation Trends

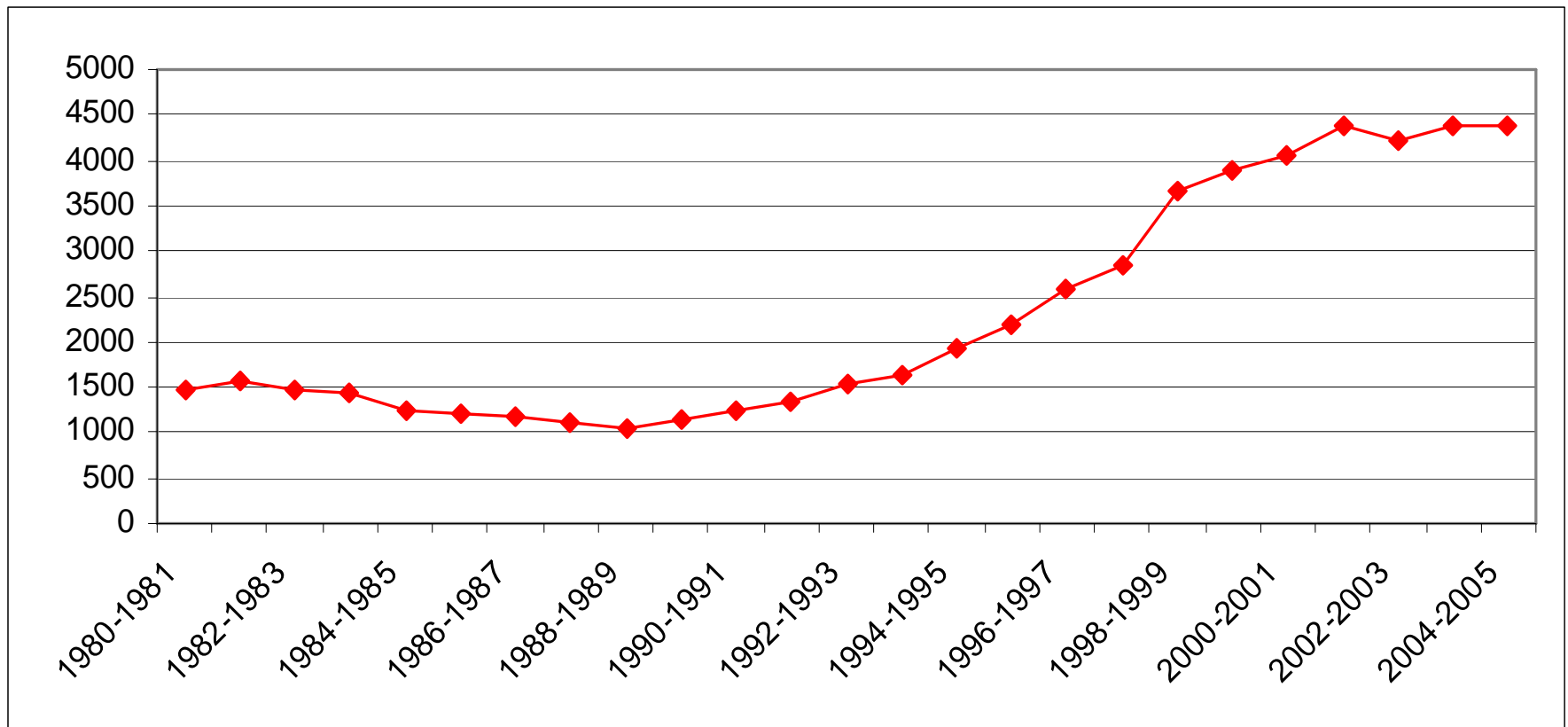


Sources: 2004 Annual Report on Osteopathic Medical Education

*2010-11 Osteopathic graduates projection is extrapolated from AACOM 2003-06 projections of enrollment

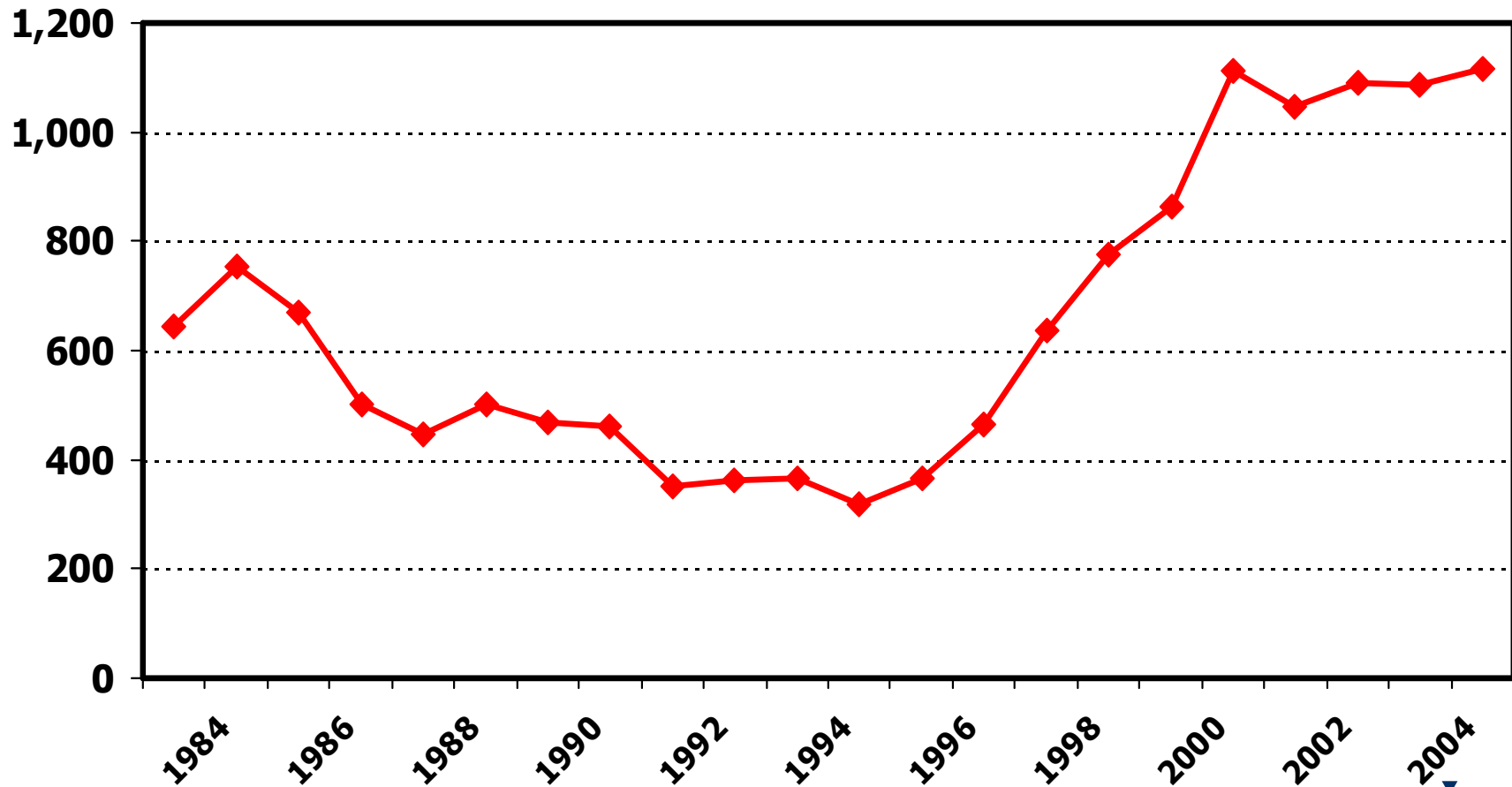


PA Pipeline, 1980-2005



Source: AAPA

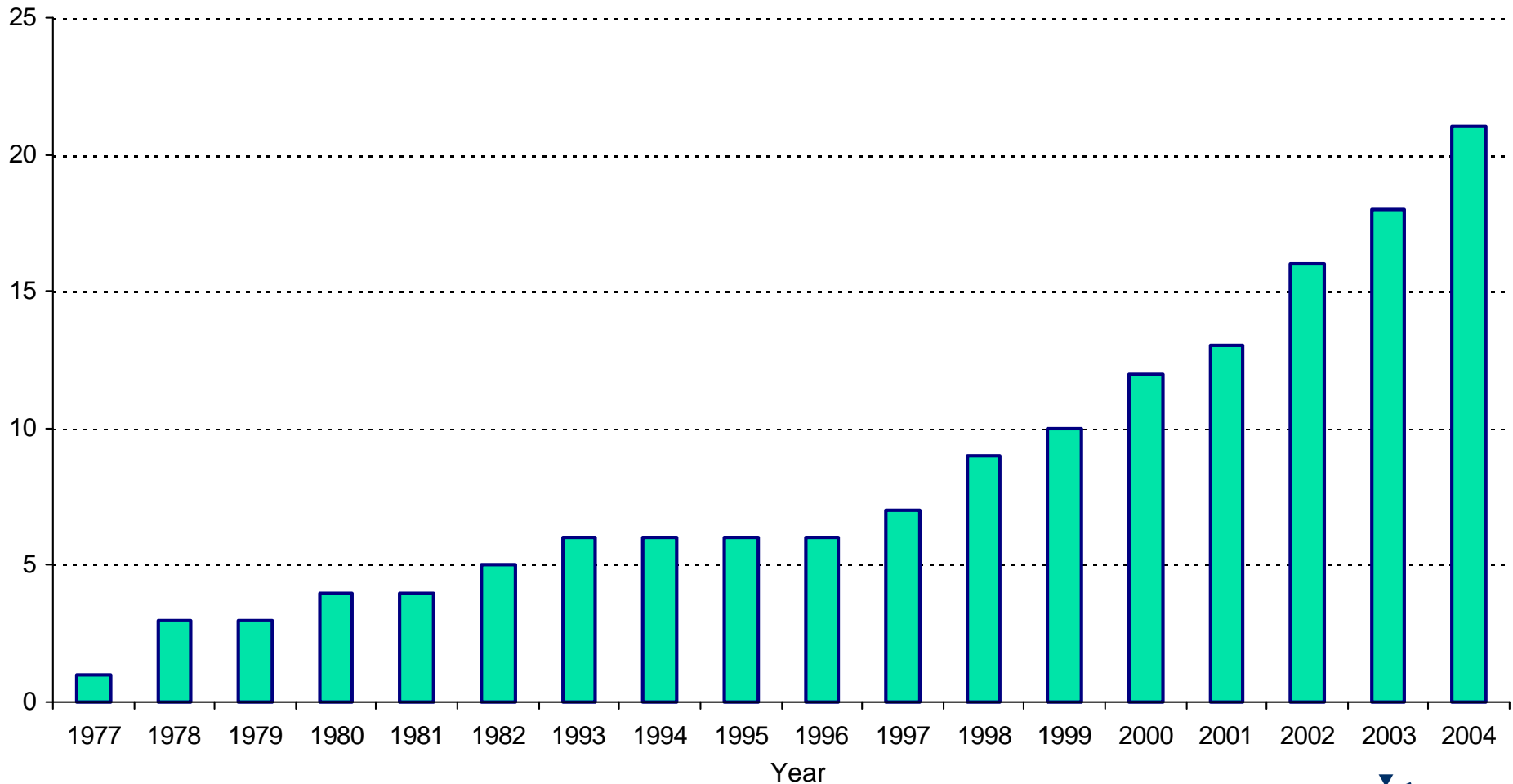
Number of US-IMG Matches in the NRMP, 1983-2004



Source: AAMC



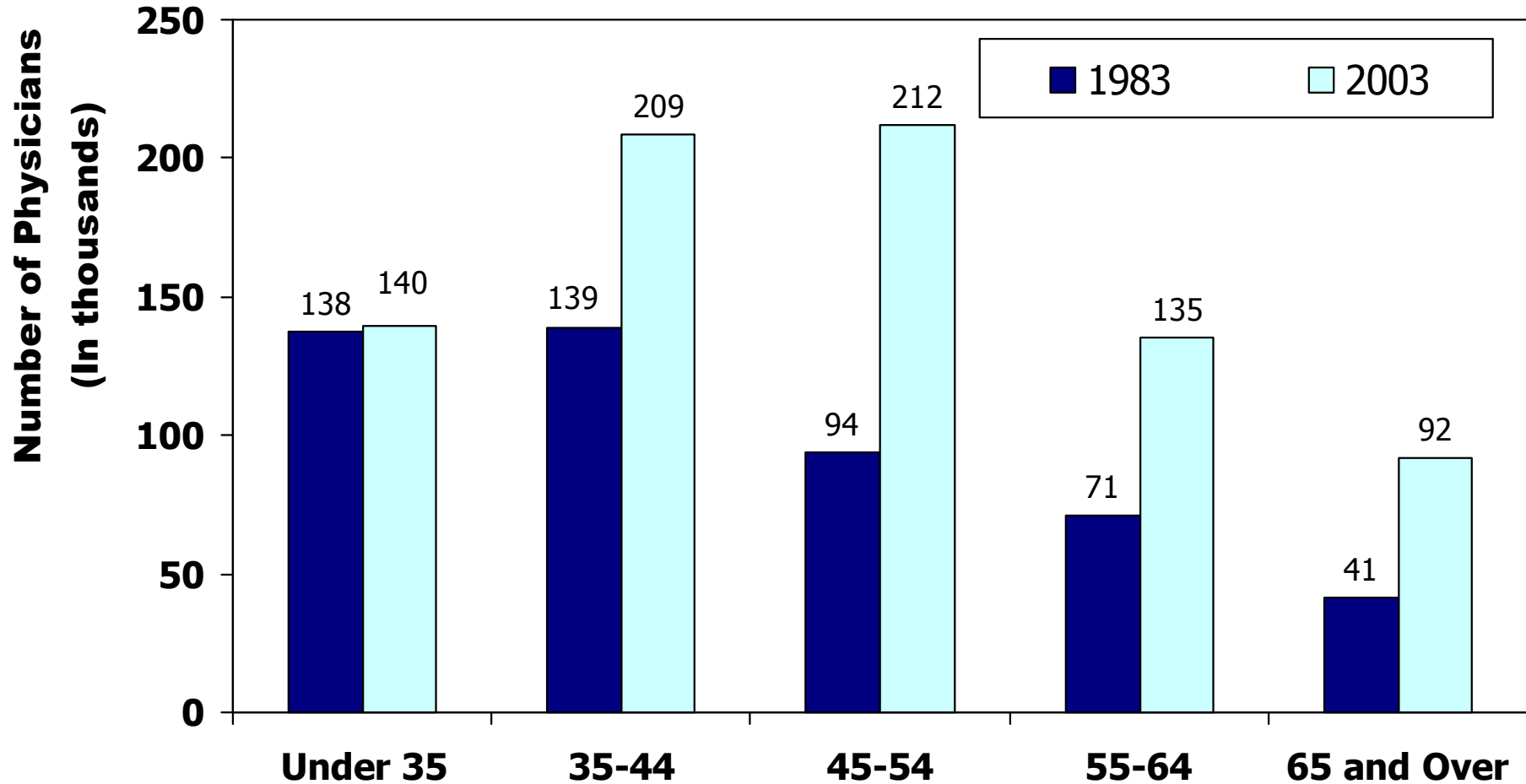
Cumulative Number of Caribbean Medical Schools by Year of Establishment



Source: List of Caribbean Medical Schools (<http://www.valuemd.com/index.php>) & ECFMG's IMED



Active Physician Age Distribution 1983 and 2003

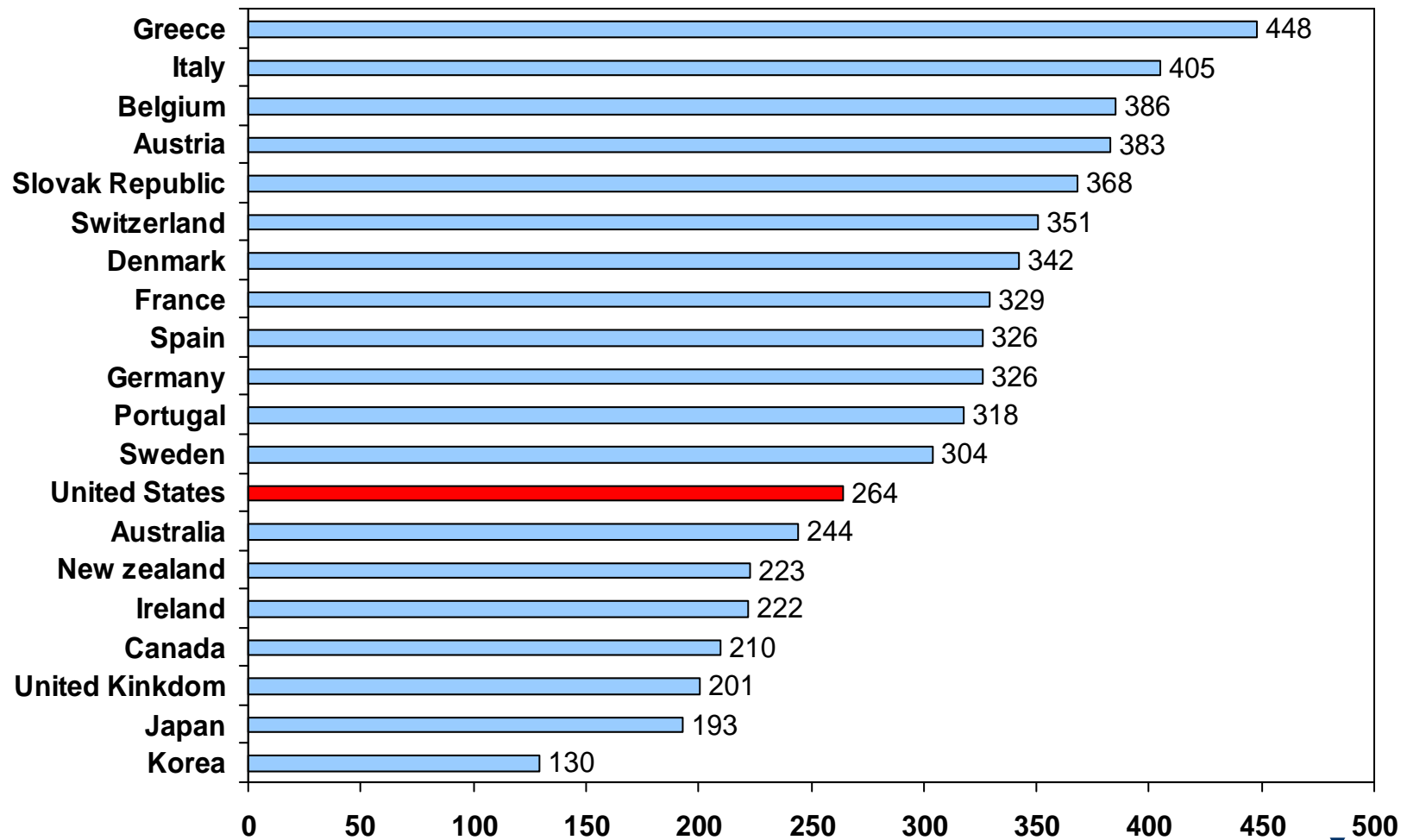


Source: AMA PCD 2005 Edition.
Prepared by AAMC Center for Workforce Studies, Jan 2006



The Per Capita Number of Physicians in the US is Lower Than Most Developed Countries

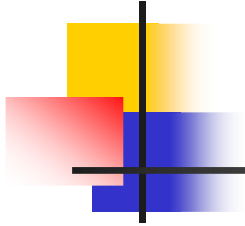
Physicians Per 100,000, 2000



Source: The Supply of Physician Services in OECD Countries. OECD, Steven Simoens & Jeremy Hurst. Health Working Papers. 2006

Prepare by AAMC Center for Workforce Studies, Jan 2006.





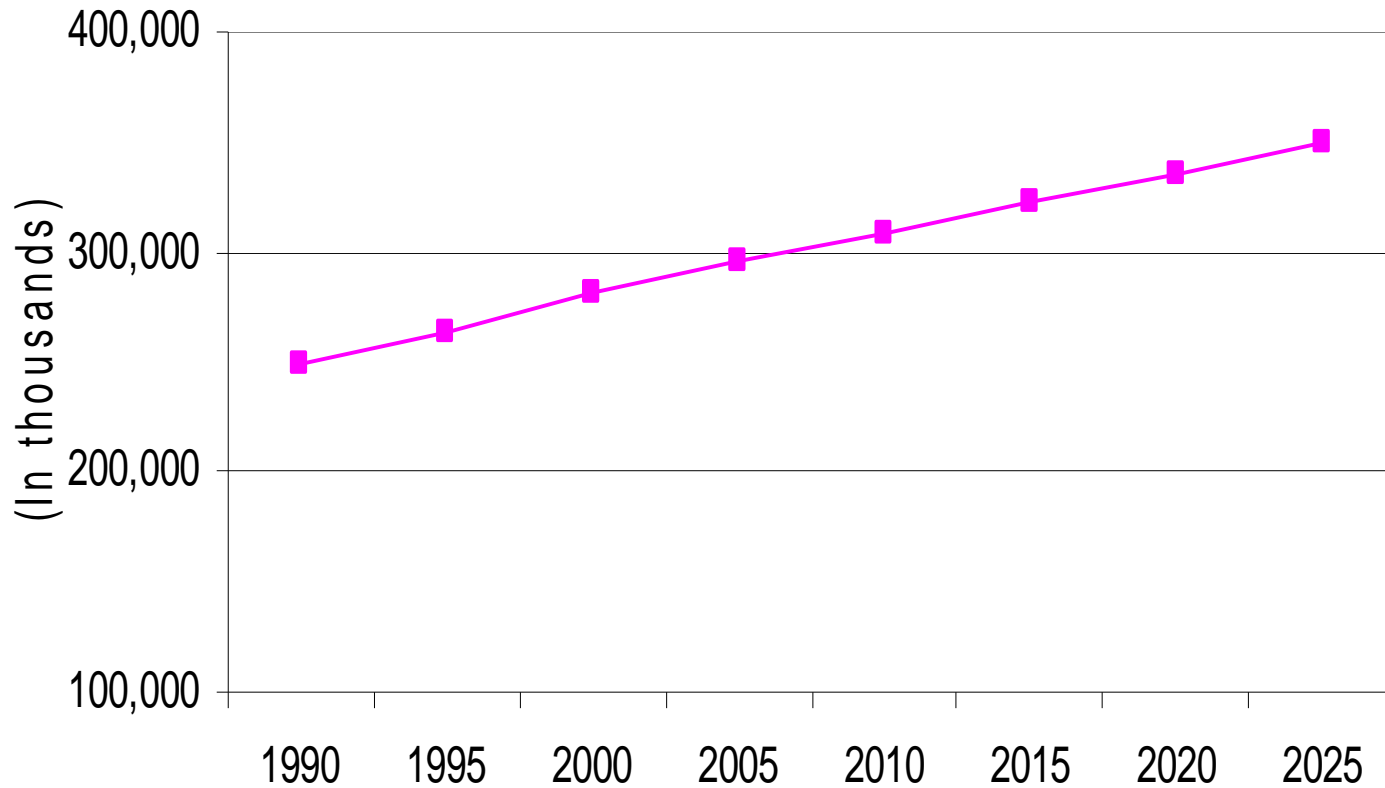
Demand for Physician Services

Key Factors Influencing Future Demand for Physician Services

- Population growth ↑
- Aging of the population ↑
- Public expectations ↑
- Economic growth of the nation ↑
- National investment in health care interventions ↑
- Advances in medicine leading to improved diagnosis and treatment ↑ ↓
- Changes in organization, delivery financing ↑ ↓
- Efforts to weed out unnecessary/marginally beneficial services ↓
- Cost containment efforts ↓

U.S. Population Growth: 1990 – 2025

The Nation is Growing by 25 Million per Decade



Source: U.S. Bureau of Census Annual Population Estimates by Age Group, Sex, selected Year for 1990-2000; Interim Projections Consistent with Census 2000
Prepared by AAMC, Center for Workforce Studies



The Eleven Most Costly Medical Conditions Are Far More Prevalent Among the Elderly, US 2000

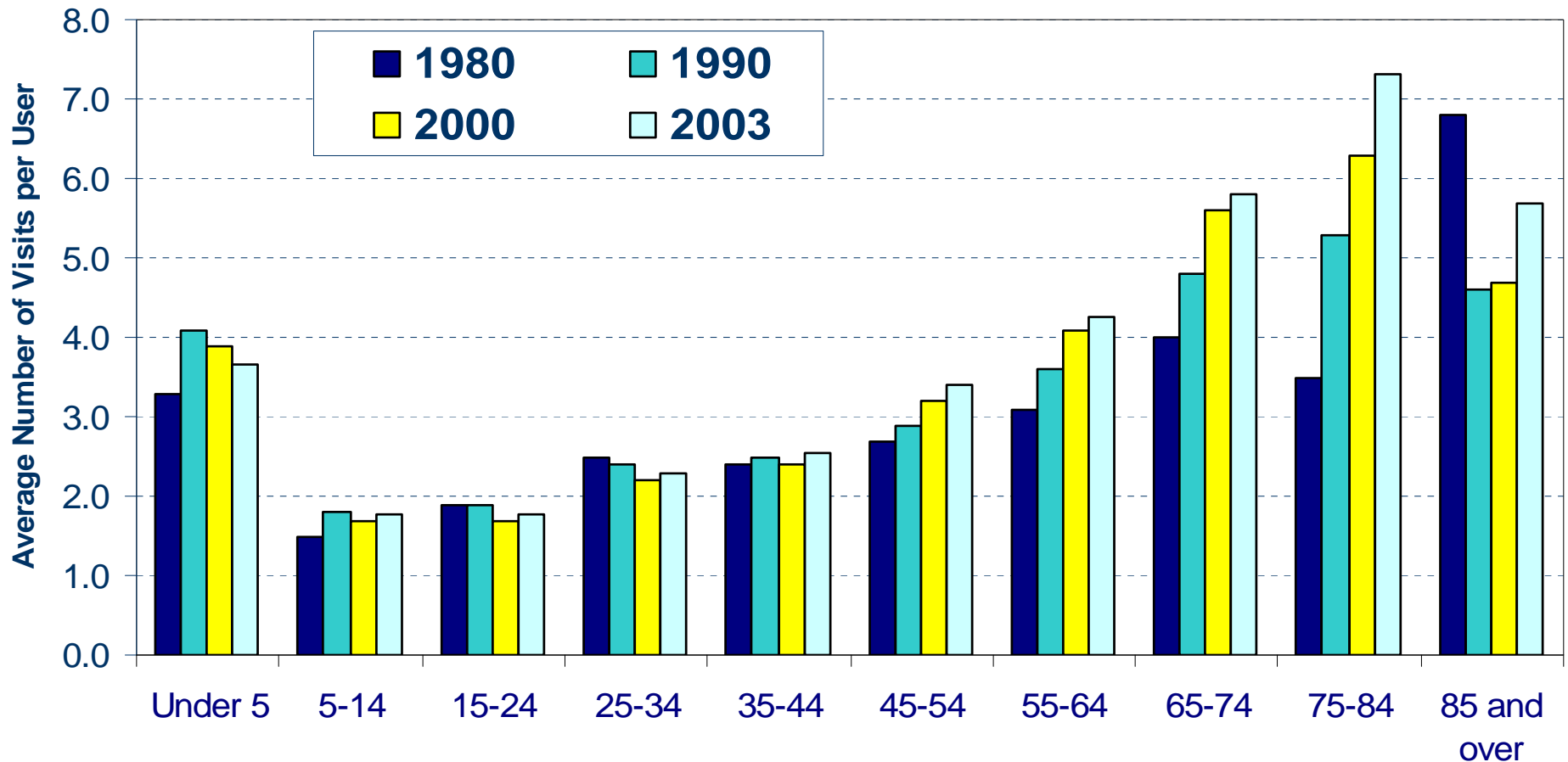
Condition	Treated Prevalence per 100,000	Spending (millions of dollars)	% in total health care spending
Heart disease	6,226	56,700	9%
Trauma	12,338	41,100	7%
Cancer	3,348	38,900	6%
Pulmonary conditions	15,526	36,500	6%
Mental disorders	8,575	34,400	5%
Hypertension	11,382	23,400	4%
Diabetes	4,260	18,300	3%
Arthritis	6,966	17,700	3%
Back problems	5,092	17,500	3%
Cerebrovascular disease	854	15,000	2%
Pneumonia	1,370	12,600	2%
Total		312,000	50%

Source: Thorpe, K.E., C.S. Florence, & P. Joski (2004)
Prepared by AAMC Center for Workforce Studies



Visit Rates are Higher and Growing for Those Over 45

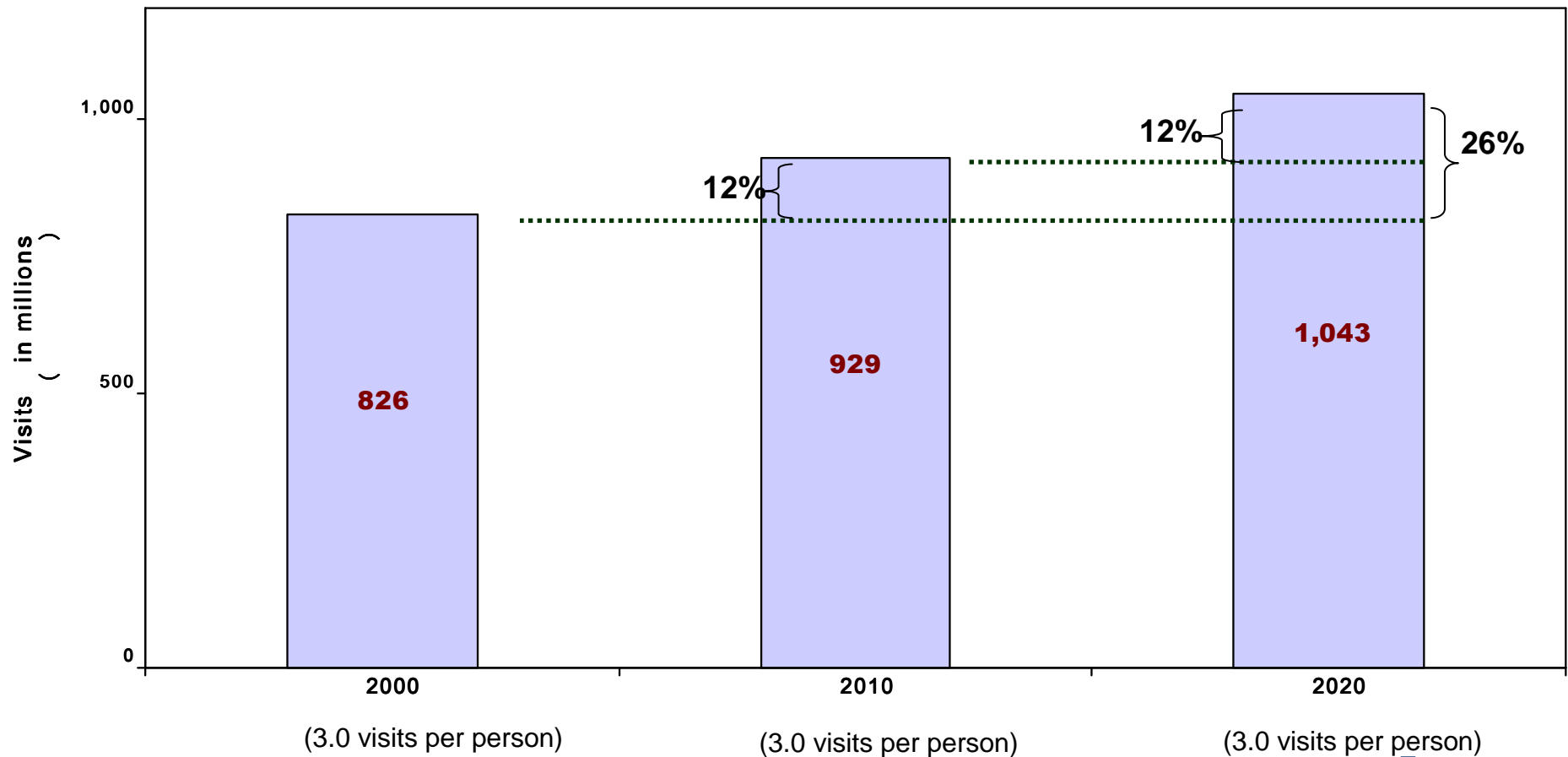
Ambulatory Care Visits to Physician Offices and Clinics, 1980-2003



Source: NAMCS, 1980, 1990, 2000 & 2003
 Prepared by AAMC Center for Workforce Studies



Physician Visits Will Rise Significantly Due to the Aging and Growth of the Population: 26% if visit Rates Stay at the 2000 Level



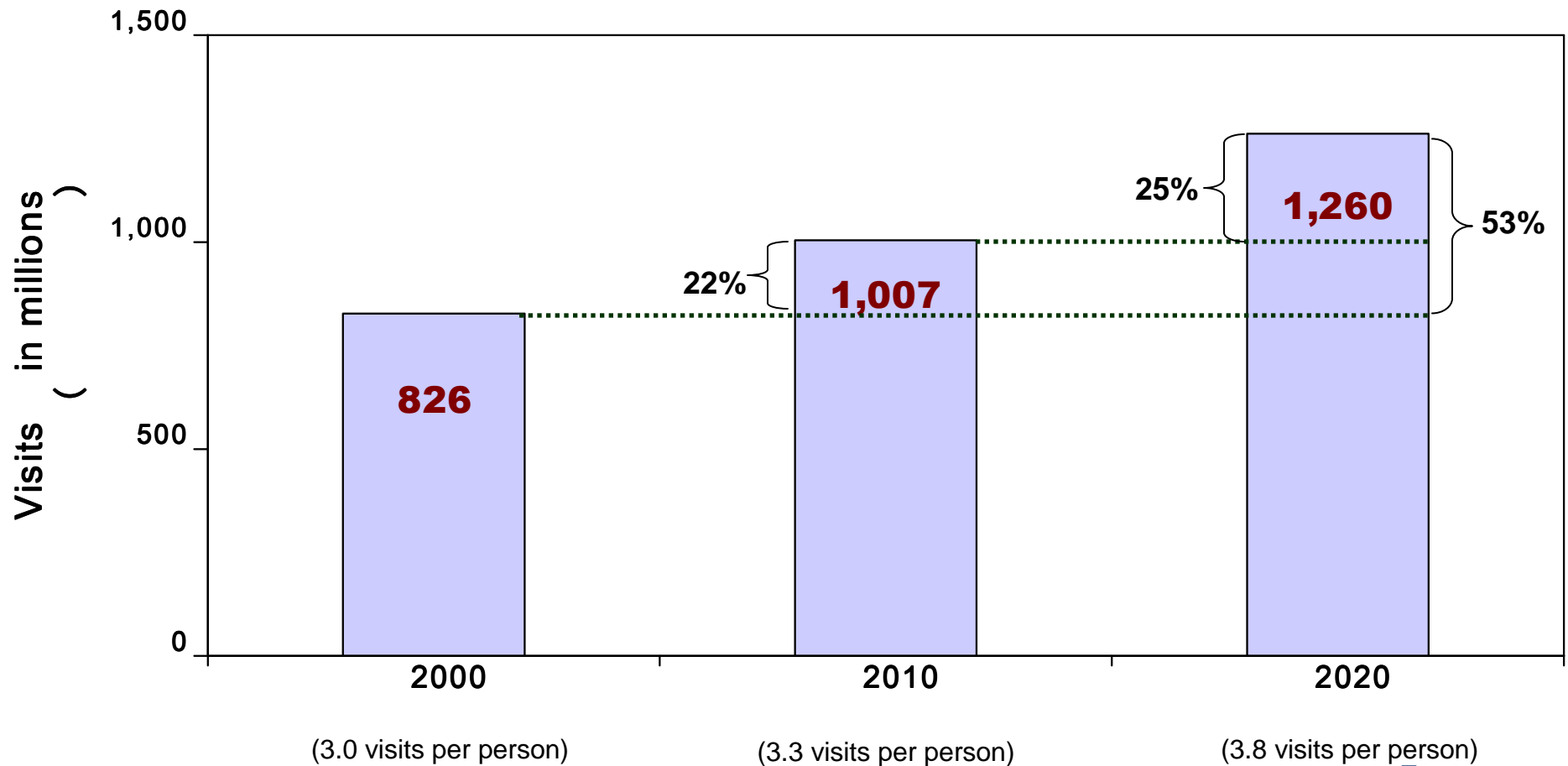
Sources: NAMCS, 1980, 1990 & 2002

US Census, Projected Population of the United States, by Age and Sex: 2000 to 2050

Prepared by AAMC Center for Workforce Studies



If Visit Rates Continue to Rise as They Did etween 1980 and 2000, Visits to Physicians Will Rise Very Sharply by 2020



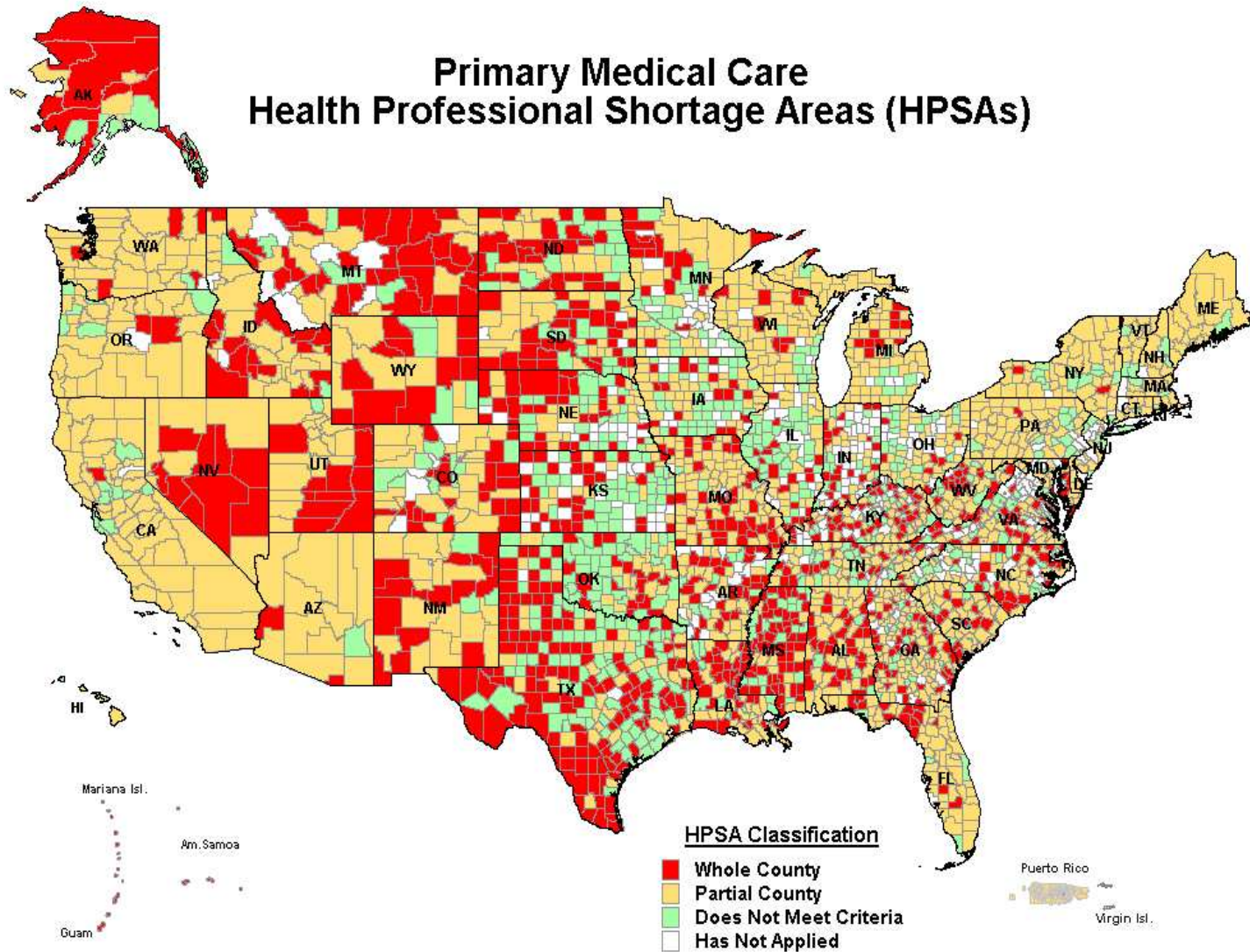
Sources: NAMCS, 1980, 1990 & 2002

US Census, Projected Population of the United States, by Age and Sex: 2000 to 2050

Prepared by AAMC Center for Workforce Studies



Unmet Need Already Exists--30 million people



Source: HRSA/AAFP

November, 2001

Recent State Studies with Findings of Shortages

- **California, 2004**
- **Mississippi, 2004**
- **North Carolina, 2004**
- **Texas, 2002**
- **Wisconsin, 2004**
- **Arizona, 2005**
- **Georgia, 2005**
- **Kentucky, 2005**
- **Massachusetts, 2005**
- **Michigan, 2005**
- **Oregon, 2005**

Recent Specialty Specific Studies with Findings of Shortages

- Critical Care, 2000
- Pediatric Subspecialties, 2000
- Endocrinology, 2002
- Geriatric Medicine, 2003
- Neurosurgery, 2003
- Psychiatry, 2003
- Allergy and Immunology, 2004
- Cardiology, 2004
- Dermatology, 2004
- Medical Genetics, 2004
- Radiology, 2004

Part II

Medical School Enrollment: Challenges to Expansion

Results of the 2004 and 2005 AAMC
Surveys of US Medical School Plans

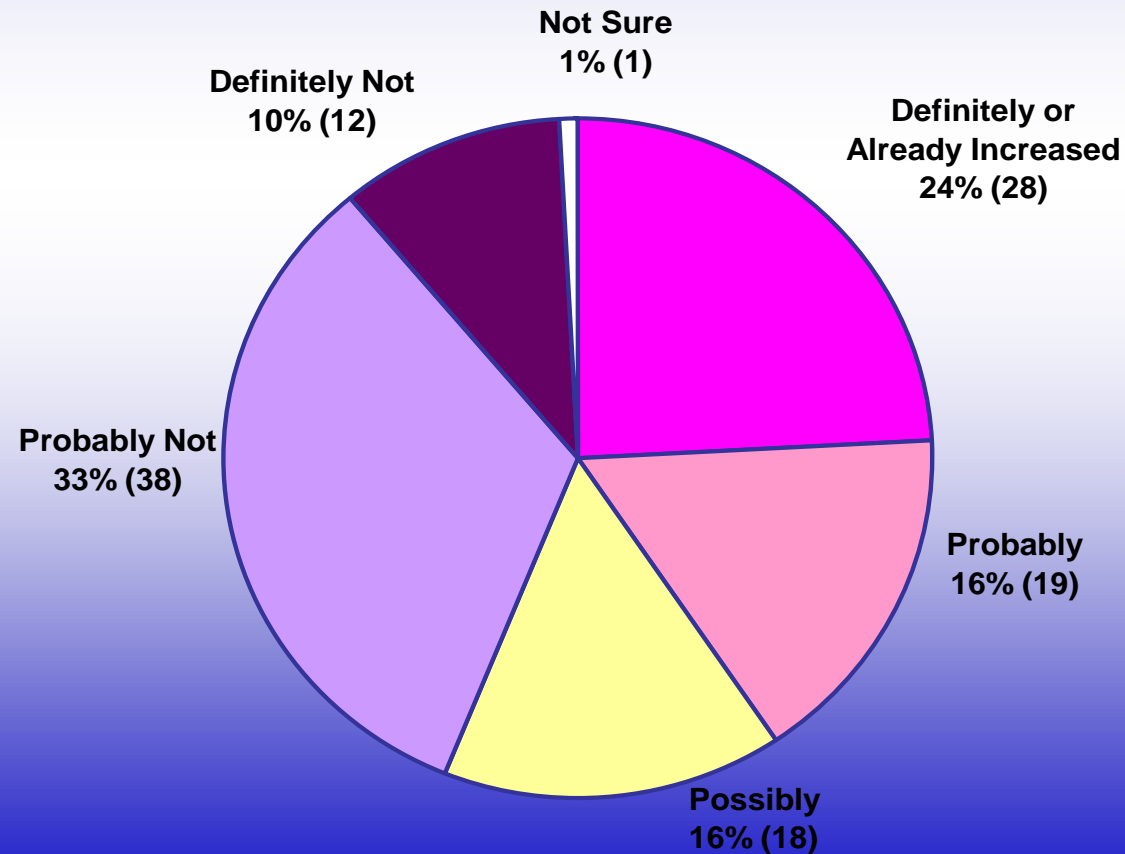


Strategies to Increase the Supply of Physicians

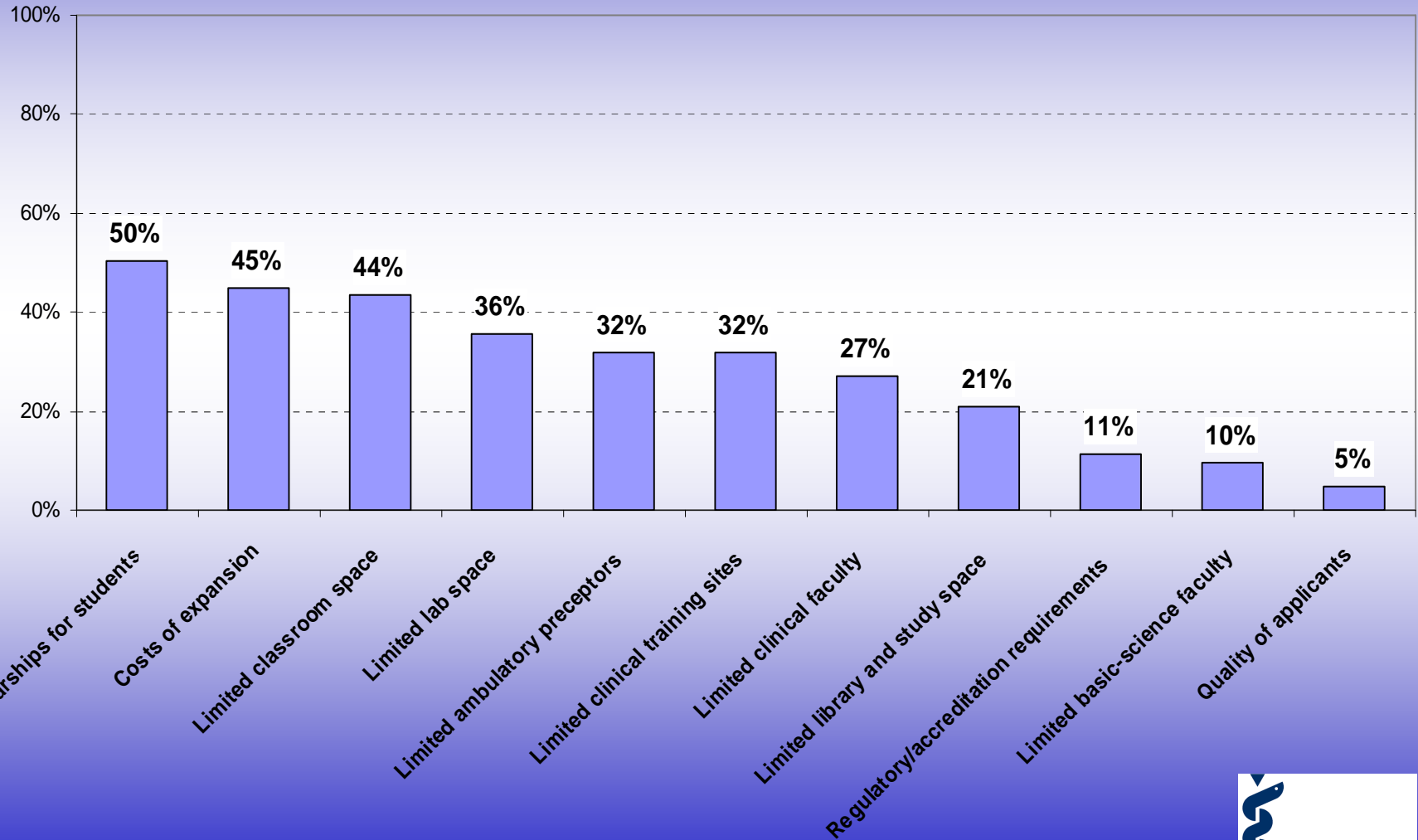
1. Increase US medical school enrollment and graduations
 - Expand existing schools add new ones
 - Support a more diverse physician workforce
 - Address barriers to expansion
2. Increase number of IMGs entering training
 - Growing concern over brain-drain
3. Retain active physicians longer
4. Increase productivity effectiveness

Allopathic Schools 2005 Plans to Increase First-Year Enrollment between 2005 and 2011

(116 of 125 schools)

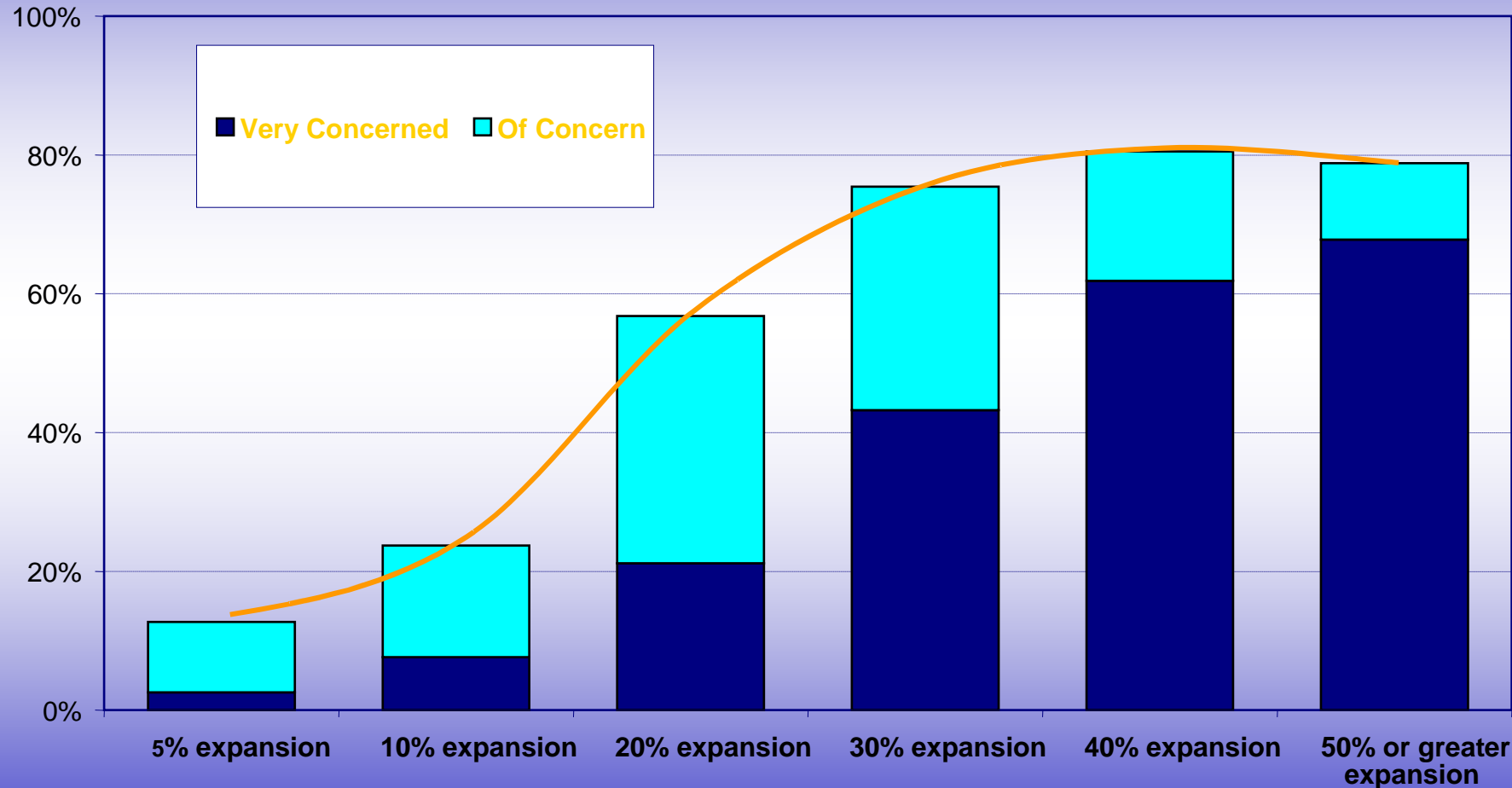


Potential barriers to Enrollment Expansion: % of Respondents with Major or Very Significant Problem, 2005-06

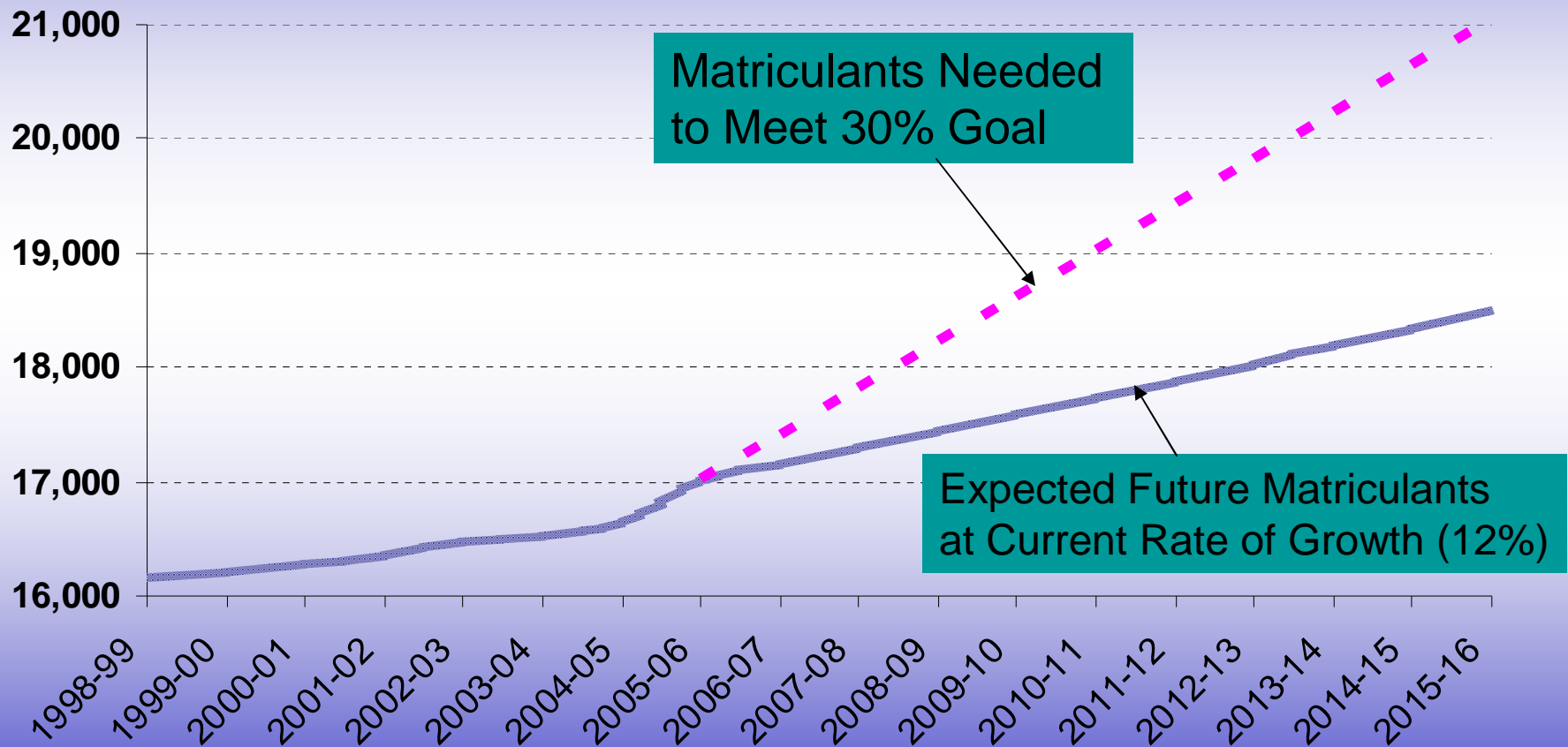


Extent of Concern With Adequacy of Applicant Pool by Size of Enrollment Expansion

(n = 118 out of 125 Allopathic Schools)



30% Growth Requires An Additional 4,000 Allopathic Matriculants by 2015



Methods for achieving the increase:

- Increase class size – Texas A&M
- New sites– Nevada; New Mexico
- New schools - Florida



Other Difficulties

- Money
- Space
- Faculty



Potential Solutions

- Money
 - New state support
 - New federal support?
- Space
 - Construction
 - Use of newer teaching methods
 - Web-based education
 - Simulators
- Faculty
 - Expansion beyond traditional faculty
 - Large community hospital
 - Sometime small ones (Harvard experiment)



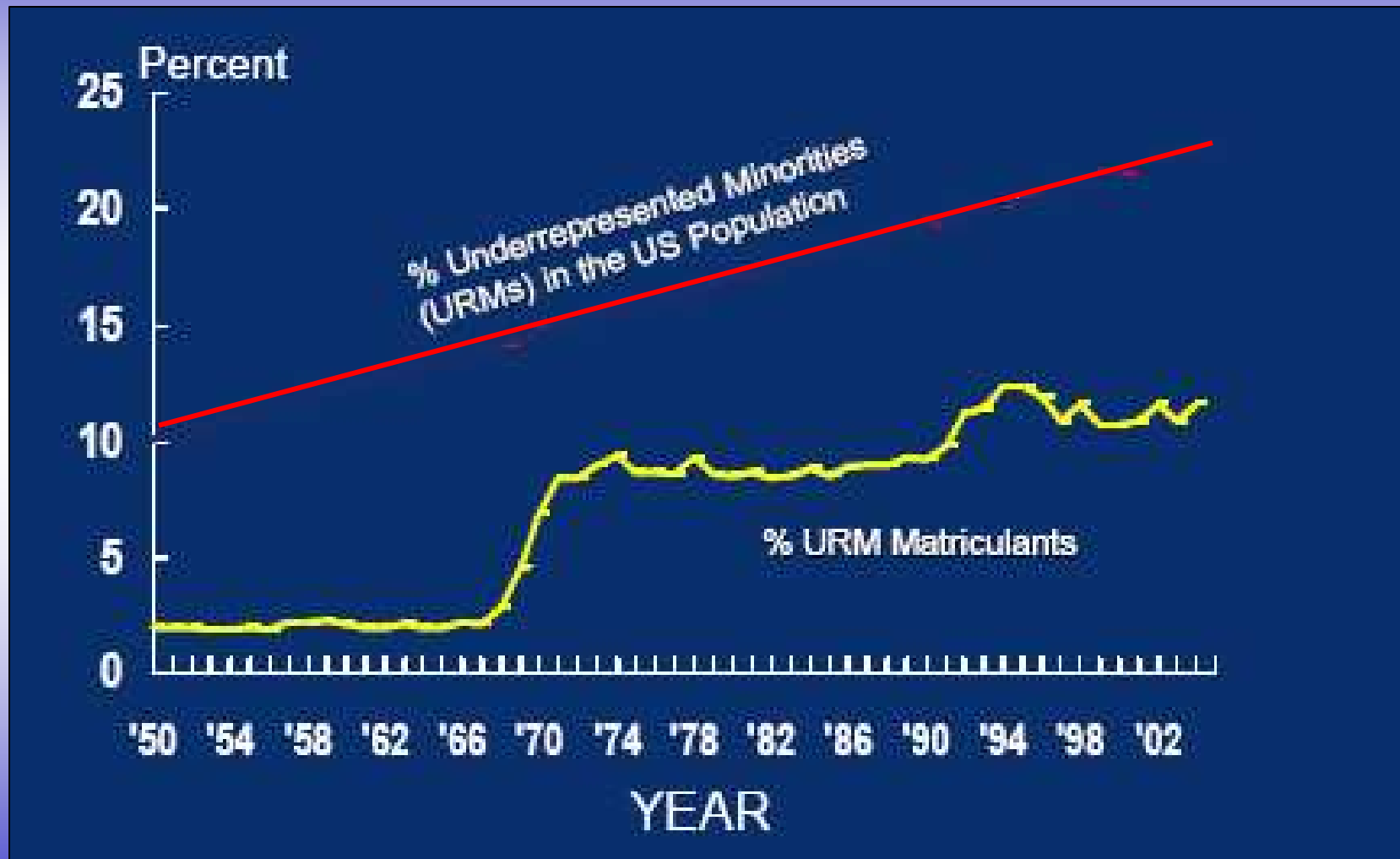
But...

Just training more doctors is not enough...

We need different doctors...

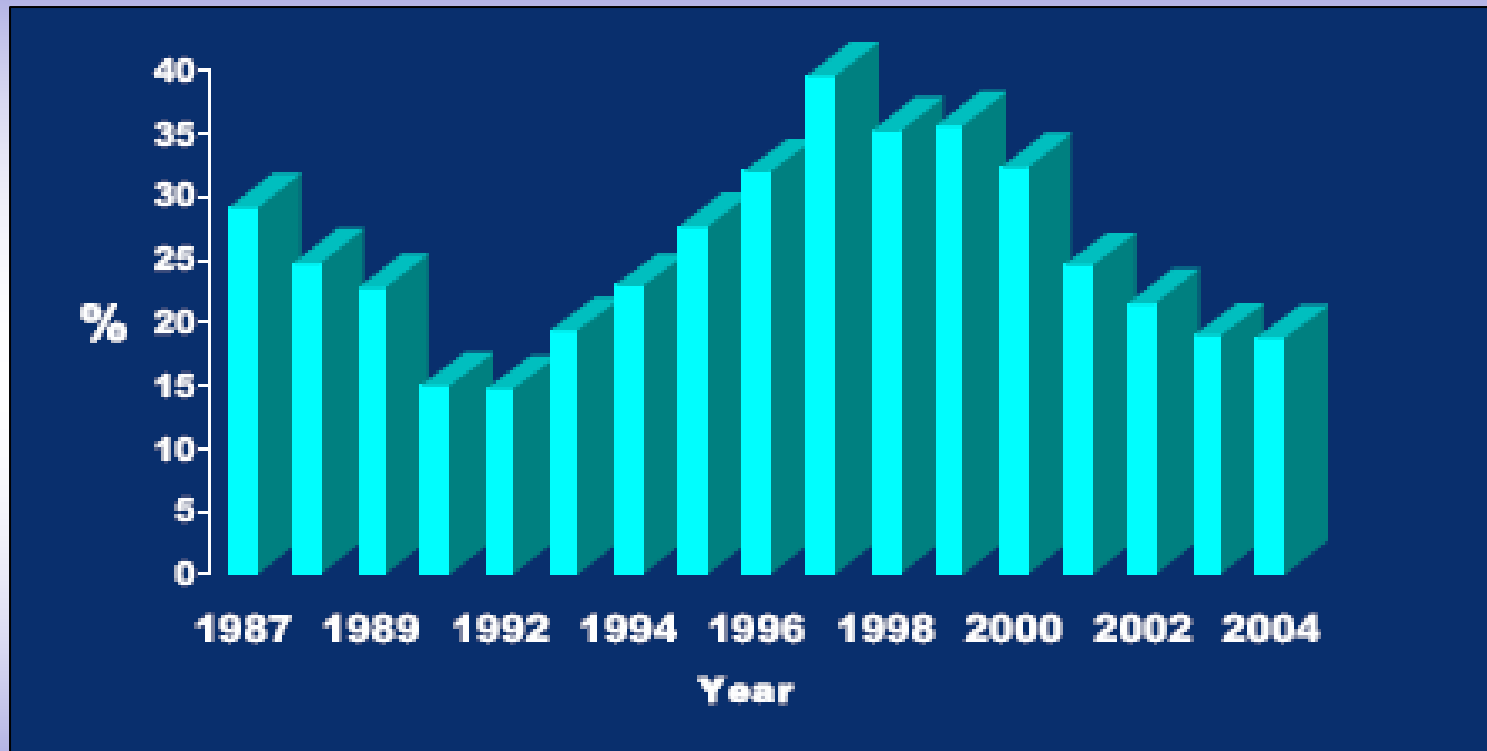


Diversity



Source: Cohen, J: 21st Century Challenges for Medical Education; 9th International Medical Workforce Conference; Melbourne, Australia; November 2005

Student Interest in Generalism



Family Practice, General Internal Medicine, or General Pediatrics
AAMC Medical School Graduation Questionnaire

Source: Cohen, J: 21st Century Challenges for Medical Education; 9th International Medical Workforce Conference; Melbourne, Australia; November 2005

Part III

New Paradigms of Care

The individual	→	The community
Acute disease dominates	→	More chronic illness/disability
Episodic care	→	Continuous care
Cure of disease	→	Preservation of health
Reactive	→	Prospective
Physician provider	→	Teams of providers
Paternalism	→	Partnership with patients
Provider centered	→	Patient/family centered
Parochial health threats	→	Global health threats

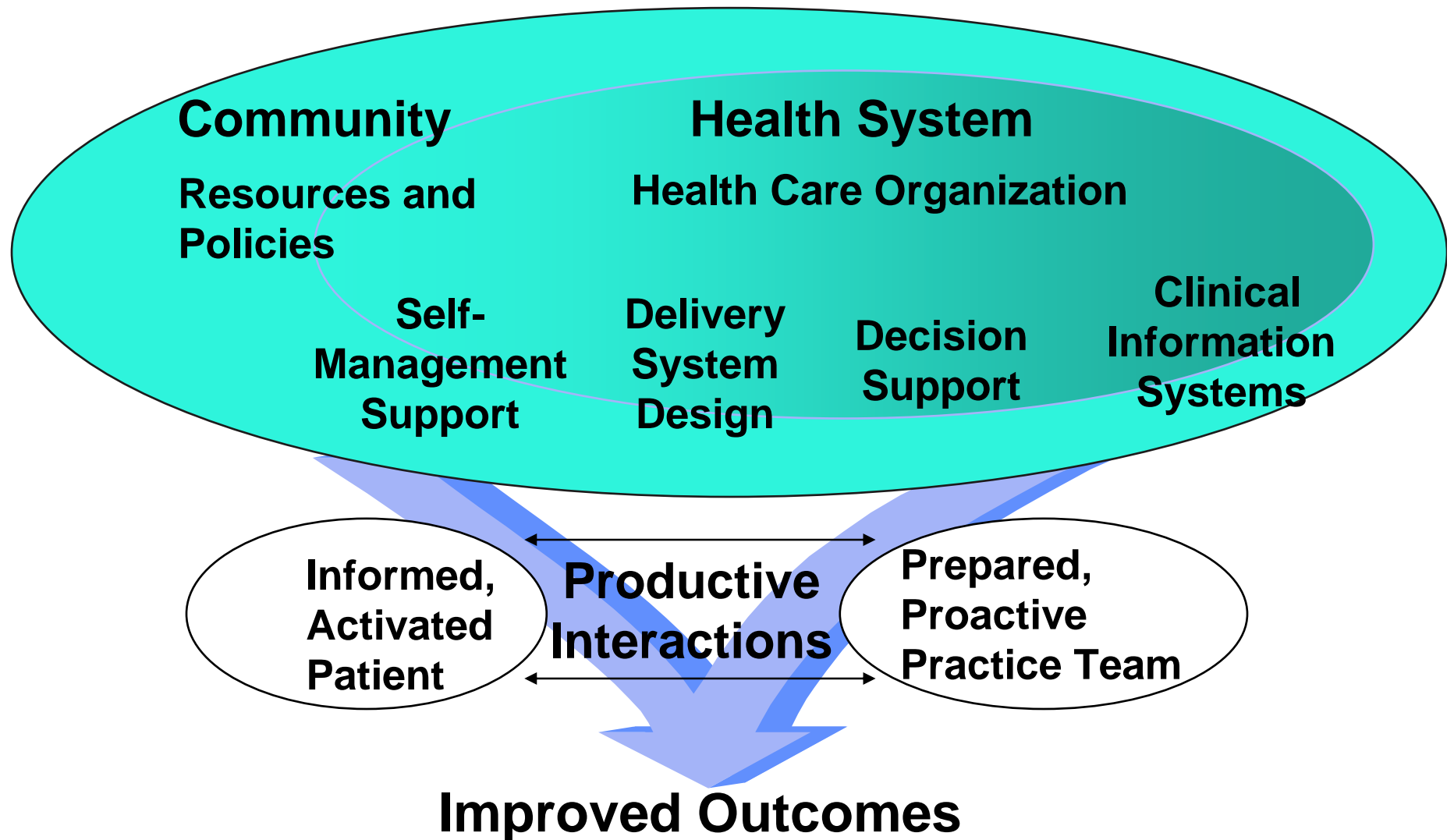
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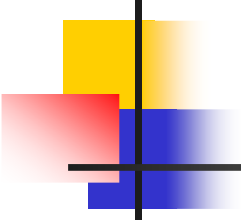
New Models of Care

Cost indifference	—————▶	Extreme cost consciousness
Anecdotal care	—————▶	Evidenced-based medicine
In-patient focused	—————▶	Ambulatory/home centered
Solo/small groups	—————▶	Integrated systems
Quality assumed	—————▶	Performance is measured
Trust assured	—————▶	Trust must be earned

Source: Cohen, J: 21st Century Challenges for Medical Education; 9th International Medical Workforce Conference; Melbourne, Australia; November 2005

Wagner Chronic Care Model





Time for Care

Current

Minimal time clinical guidelines*

<u>Type of visit</u>	<u>Hours per day</u>
Acute	4.3
Chronic	2.8
Preventive	1.2

<u>Type of visit</u>	<u>Hours per day</u>
Acute	4.3
Chronic	10.6
Preventive	7.4

Total 8.3

Total 22.3

*Panel of 2,500 patients with age, sex, and disease rates of the U.S. population

New Models of Primary Care

Old



New

