The US Physician Workforce: Data, Methods and Findings for Projections Through 2020

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Overview of Presentation

- Background on physician workforce planning and policies in the US

- Data, Methods, Models and Assumptions for the Forthcoming COGME Report

- Findings and Recommendations of the COGME Report

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Physician Workforce Planning in America

- Extensive public support for medical education and GME but no national or state level planning system

  - Resistance to central control

  - Limited federal guidelines

  - Limited use of fiscal incentives

  - Limited role for states in planning

- Market driven

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The Challenges to the Predictions of a Surplus and the "110-50-50" Goals

- COGME's 14th Report: Factors Impacting on Supply & Demand
  - The evolution of managed care
  - Changing physician workforce

- Growing concerns with shortages in selected specialties

- Continued large inflow of IMGs (including US-IMGs)

- Articles by Richard (Buz) Cooper

- Results of resident exit surveys (Albany Center for Health Workforce Studies)

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Overview of National Physician Workforce Goals and Policies

1945 – late 1970s: Concern with physician shortages; federal policies to stimulate increased supply

1980 – 2000: Concern with potential surpluses and primary care/specialist mix

- GMENAC report (1980) marks shift in concern
- COGME reports 3, 4 and 8 (early/mid 1990s)
- Articles on impact of managed care/HMOs
- Comparisons with Europe and Canada
- COGME recommends GME goal of "110-50-50"
- Balanced Budget Act of 1997

2000 +: Growing concern with potential shortages

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The Current Physician Workforce Debate: Four Major Positions

1. The nation has more than enough physicians. The contribution of additional physicians is marginal and many physician services are unnecessary or of marginal benefit.

2. The total supply of physicians is adequate: No need to do anything now.

3. The total supply is adequate but we rely too heavily on IMGs: Increase US med school slots but not GME.

4. The nation will be facing a major shortage of physicians: Begin to increase US medical school capacity as soon as possible.

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COGME Study: Background

- Analysis and Projections conducted for US Council on Graduate Medical Education (COGME)

- COGME charged with advising the nation on physician workforce issues but future uncertain

- Project begun in 2002

- Draft final report approved by Council in July 2004

- Report printing and distribution expected shortly

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Overview of COGME Study Methodology and Data

- Build on existing models and data
- Develop alternative scenarios for supply, demand, and need
- Findings presented as a range for supply, demand and need under alternative scenarios and assumptions

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Baseline Physician Supply Model: Framework

- Allopathic and Osteopathic Physicians

- US Medical School Graduate and International Medical School Graduate Streams

- 18 Specialties Included

- Projections: 2005, 2010, 2015 and 2020

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Baseline Physician Supply Model: Factors Considered

- Physician Age Distribution
- Physician Gender Distribution
- Location of Medical Education (USMG vs. IMG)
- Separation Rates (Retirement and Death)
- Resident Sub-specialization Rates
- Physician Productivity

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Baseline Physician Supply Model: Assumptions, #1

- Physician Activity Distribution (patient care, administration, research, teaching, etc.) will continue in the future as it was in 1995

- Physician Separation Rates (deaths, retirements, and other departures) will be consistent with those between 1990 and 1995

- Specialty Distribution Rates (how physicians are assigned a specialty in the projections) of existing physicians will remain as they were in 1995

- Specialty Distribution Rates of new entrants will follow patterns observed from 1991-1997

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Baseline Physician Supply Model Assumptions, #2

- <u>Physician Productivity</u> (observed as full-time equivalents: FTEs) is based upon 1995 research on non-federal, post-residency, patient care physicians

- <u>Physician Productivity</u> will be affected by the demographics (age, gender and specialty distributions) of the physician supply only

- <u>Ratio of NPs/PAs/CNMs</u> to physicians remains unchanged through 2020

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Baseline Physician Supply Model Assumptions, #3

- New Physician Entrants will approximate this distribution:

Projected Number of New Entrants

Year	USMG Entrants	CMG Entrants	DO Entrants	IMG Entrants
2000	15,824	191	2304	5,200
2005	16,000	219	2650	5,200
2010	16,000	230	3000	5,200
2015	16,000	245	3000	5,200
2020	16,000	247	3000	5,200
% Change	1%	29%	30%	0%

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Baseline Physician Supply Projection

Supply of Physicians in the U.S., 2000-2020
Baseline Projections

| YEAR	FTE Physicians	U.S. Population (000s)	FTEs per 100k Pop
2000	781,227	276,241	283
2005	844,464	288,286	293
2010	899,540	300,431	299
2015	942,145	313,116	301
2020	971,817	325,942	298
% Change	*24%*	*18%*	*5%*

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Important Factors *Not Included in the Baseline* Physician Supply Projection

- Physician lifestyle changes

- Physician productivity changes due to technological, service delivery improvements and increased use of NPs, PAs and other clinicians

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Alternative Physician Supply Scenarios

- Alternative Scenario 1: Physician lifestyle changes – 10% reduction in work effort

- Alternative Scenario 2: Physician productivity enhancements – 20% increase in productivity

- Alternative Scenario 3: Combination of Scenarios 1 and 2

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Projections of Physician Supply, 2020
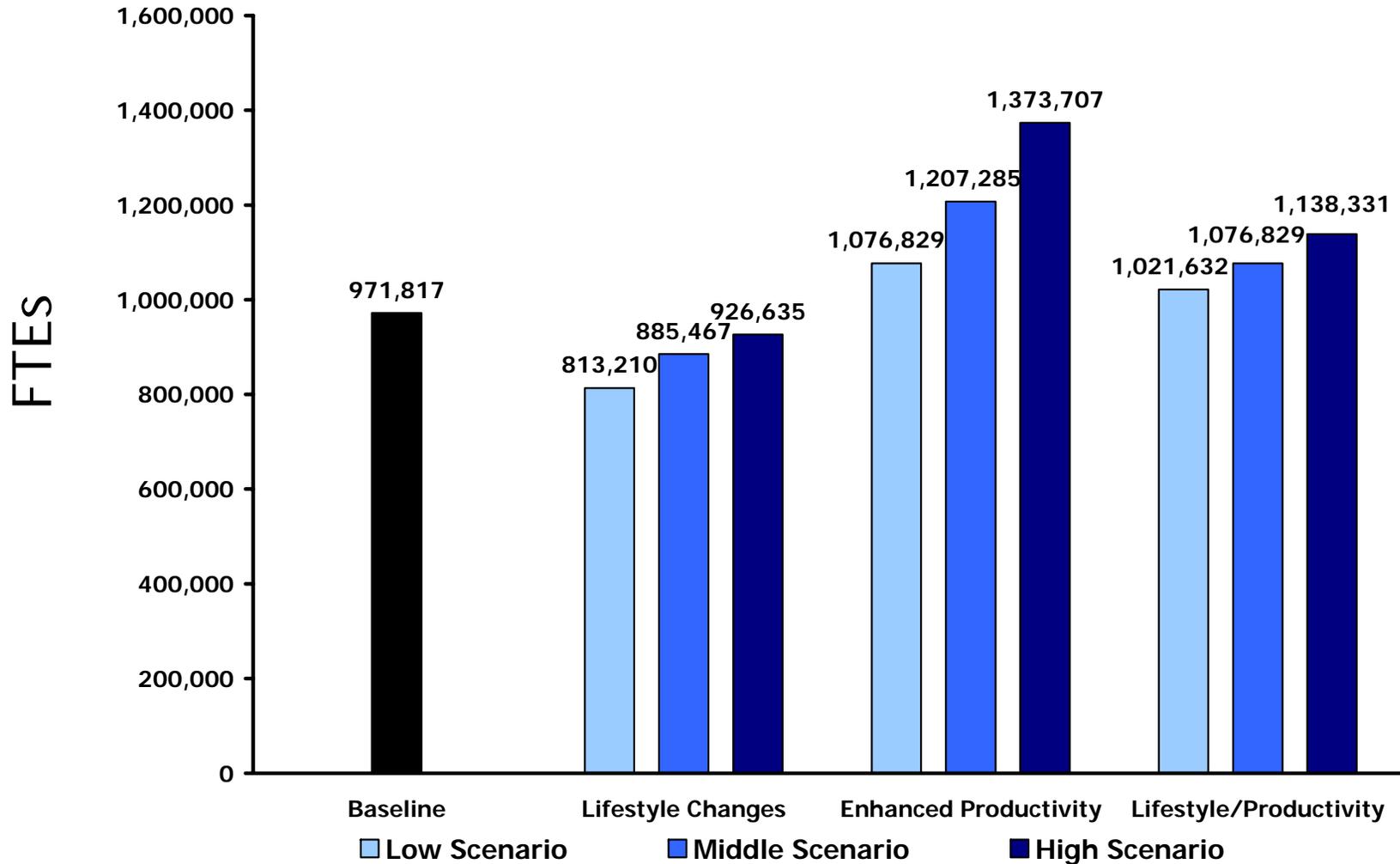
Factors Affecting Supply <u>Not Included in Baseline or Alternative Scenarios</u>

- Increase in non-patient care activities and alternative careers for physicians

- Increase in medical school capacity

- IMG decrease due to stricter immigration policies

- IMG increase due to reports of shortages

- Restrictions on resident work hours

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Baseline Physician Demand Model

- ## Demand Forecasts Consider:

  - Population Distribution

  - Trends in Population Demographics

  - Insurance Coverage

  - Varying Utilization Rates (by Race/Gender/Age)

  - Contribution of Non-Physician Clinicians

  - Urban and Rural Medical Practice Patterns

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Baseline Physician Demand Model Assumptions, #1

- <u>Use rates remain constant over time</u> (baseline data derived from 1997 use rates) by age, gender, urban/rural, insured/uninsured, and setting.

- <u>Physician Productivity</u> (time spent with a patient) <u>remains constant over time</u> (baseline data from 1995 rates of productivity

- <u>Physician Supply equals Physician Demand</u> in 2000 through 2002

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Baseline Physician Demand Projection 2000-2020

Demand for Physicians in the U.S., 2000-2020
Baseline Projections

YEAR	FTE Physicians	U.S. Population (000s)	FTEs per 100k Pop
2000	781,227	276,241	283
2005	836,818	288,286	290
2010	883,245	300,431	294
2015	934,151	313,116	298
2020	987,937	325,942	303
% Change	*26%*	*18%*	*7%*

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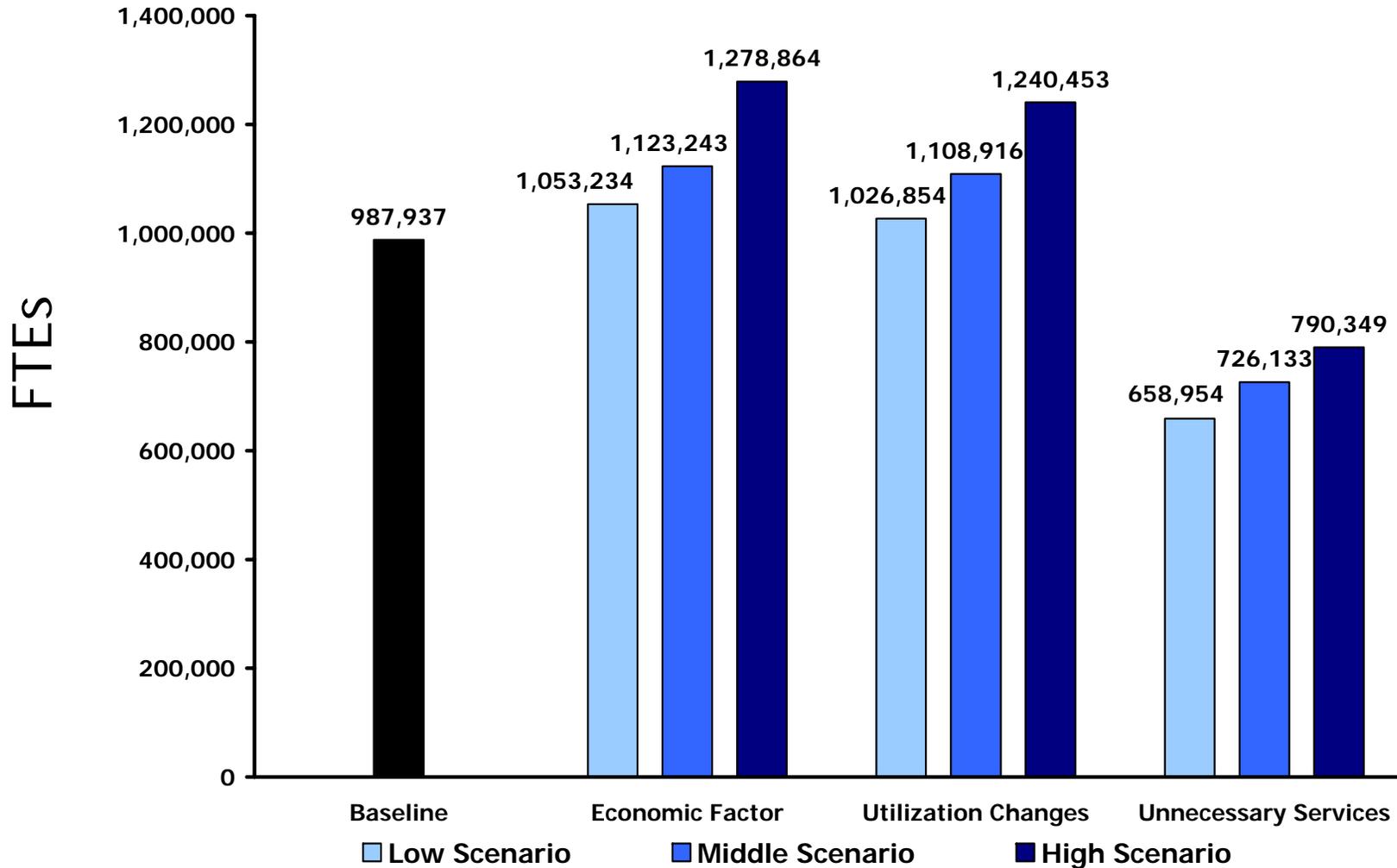
Alternative Physician Demand Scenarios

- Alternative Scenario 1: Economic Growth 1% annual GDP increase leads to .75% increase in use

- Alternative Scenario 2: Changing age-specific physician utilization rates

- Alternative Scenario 3: Reduction in demand for unnecessary or marginally beneficial services

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Projections of Physician Demand, 2020

FTEs

- 1,400,000
- 1,200,000
- 1,000,000
- 800,000
- 600,000
- 400,000
- 200,000
- 0

Baseline — 987,937

Economic Factor — 1,053,234 / 1,123,243 / 1,278,864

Utilization Changes — 1,026,854 / 1,108,916 / 1,240,453

Unnecessary Services — 658,954 / 726,133 / 790,349

☐ Low Scenario   ☐ Middle Scenario   ■ High Scenario

October 2004

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Factors Affecting Demand <u>Not Included in</u> <u>Baseline or Alternative Scenarios</u>

- Increasing use due to new interventions and treatment protocols
- Increasing average length of visit time
- Increase in use of services generated by use of human genome diagnostic screening
- Changes in reimbursement policies (Medicare, Medicaid, coverage for the uninsured)
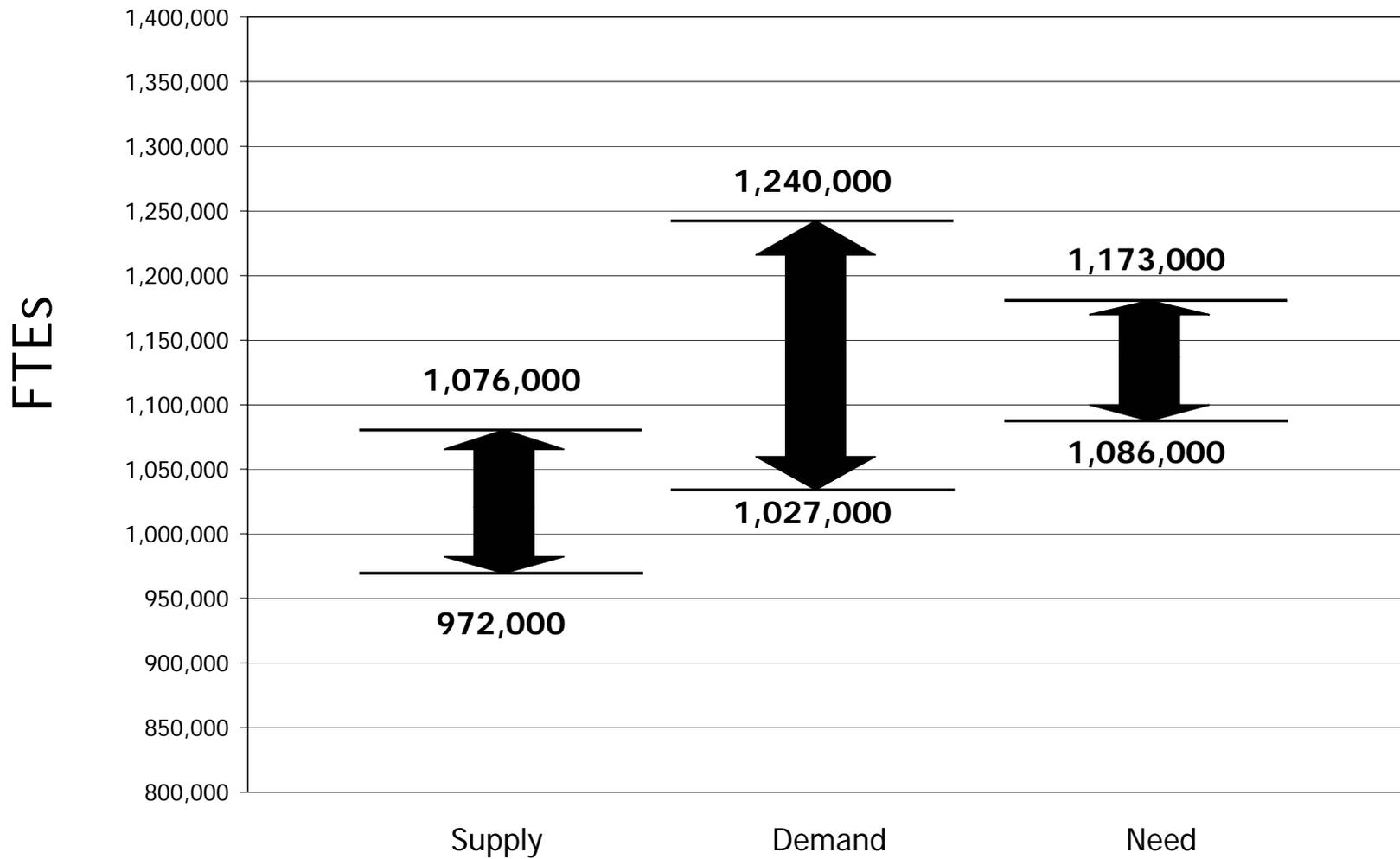- Mal-distribution of physicians

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Summary of Findings and Recommendations

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COGME Report Projections of Physician Supply, Demand and Need, 2020

October 2004

COGME Report Recommendations

1. Increase number of new physicians produced from 24,000 per year to 27,000.

2. Increase in US medical school graduates by 3,000 per year (15%) by 2015.

3. Gradually increase the number of training positions and raise Medicare cap on GME positions to match increase in US medical school graduations.

4. Track physician supply, demand and need and conduct a comprehensive re-assessment within next 4 years

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COGME Draft Recommendations #2

5. The distribution among specialties should be determined by market place demand as reflected in systematic data collection and analysis rather than a set specific target for the nation.

6. Efforts to increase physician productivity should be promoted including investing in new technologies and use of non-physician clinicians.

7. The national health service corps (NHSC) and other federal programs that address access and distribution problems shortages should be expanded.

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Impact of the Recommended Increase in U.S. Medical Production

- Recommend an increase of 3,000 new US medical school graduates per year phased in by 2015.

- In the absence of an increase, likely to have about 972,000 active physicians in 2020.

- The increase in medical school graduates would add about 30,000 physicians by 2020 bring the total supply to 1,002,000.

- This is far less than the likely demand of between 1,027,000 and 1,240,000 physicians if services in 2020 are delivered as they were in 2002.

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