Critical Care Medicine
Is There Still a Role for Anesthesiologists?

Neal H. Cohen, MD, MPH, MS
Professor and Vice Dean
UCSF School of Medicine

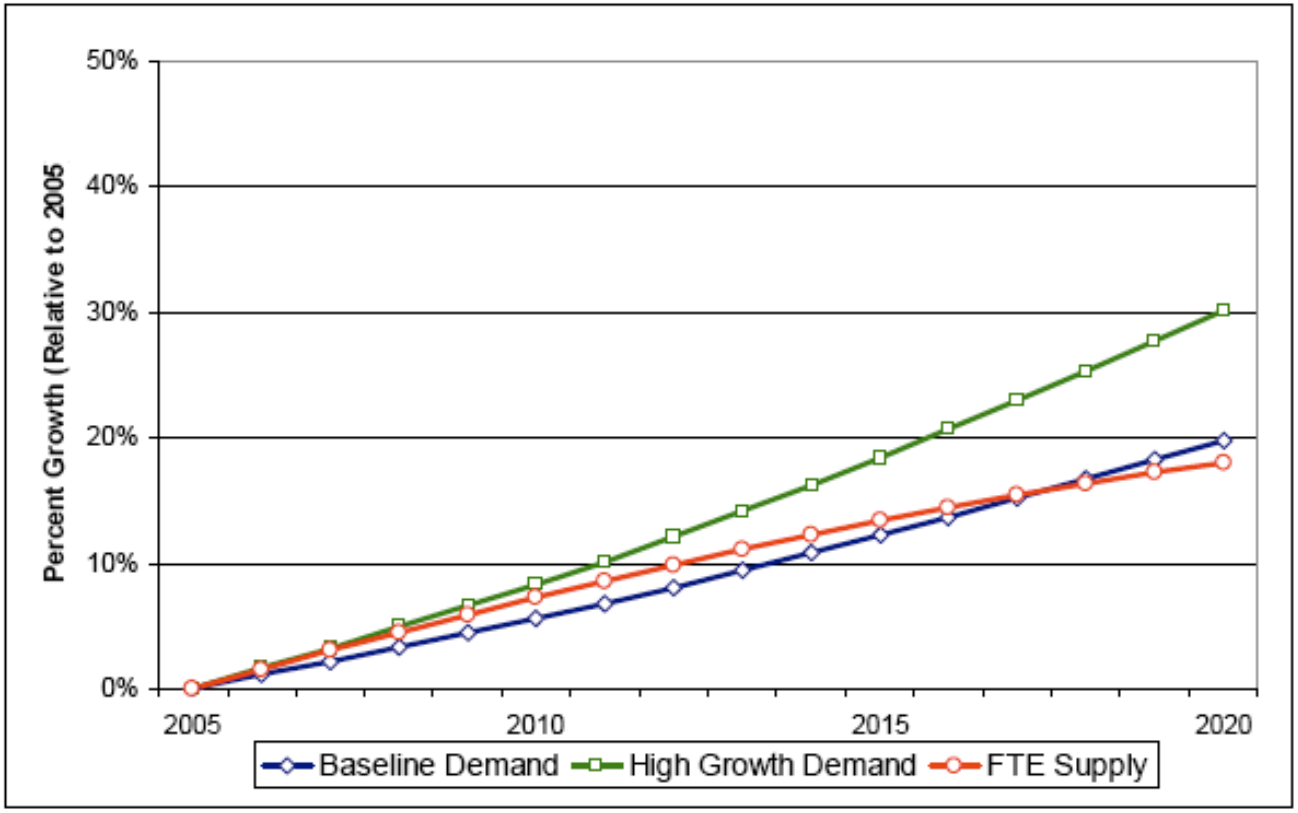
Critical Care Anesthesiology

- Is there (still) a clinical need for the critical care anesthesiologist?
- Will anesthesia training programs respond to the demand?
- Is critical care anesthesiology economically viable?
- What does the future hold?

Physician Workforce

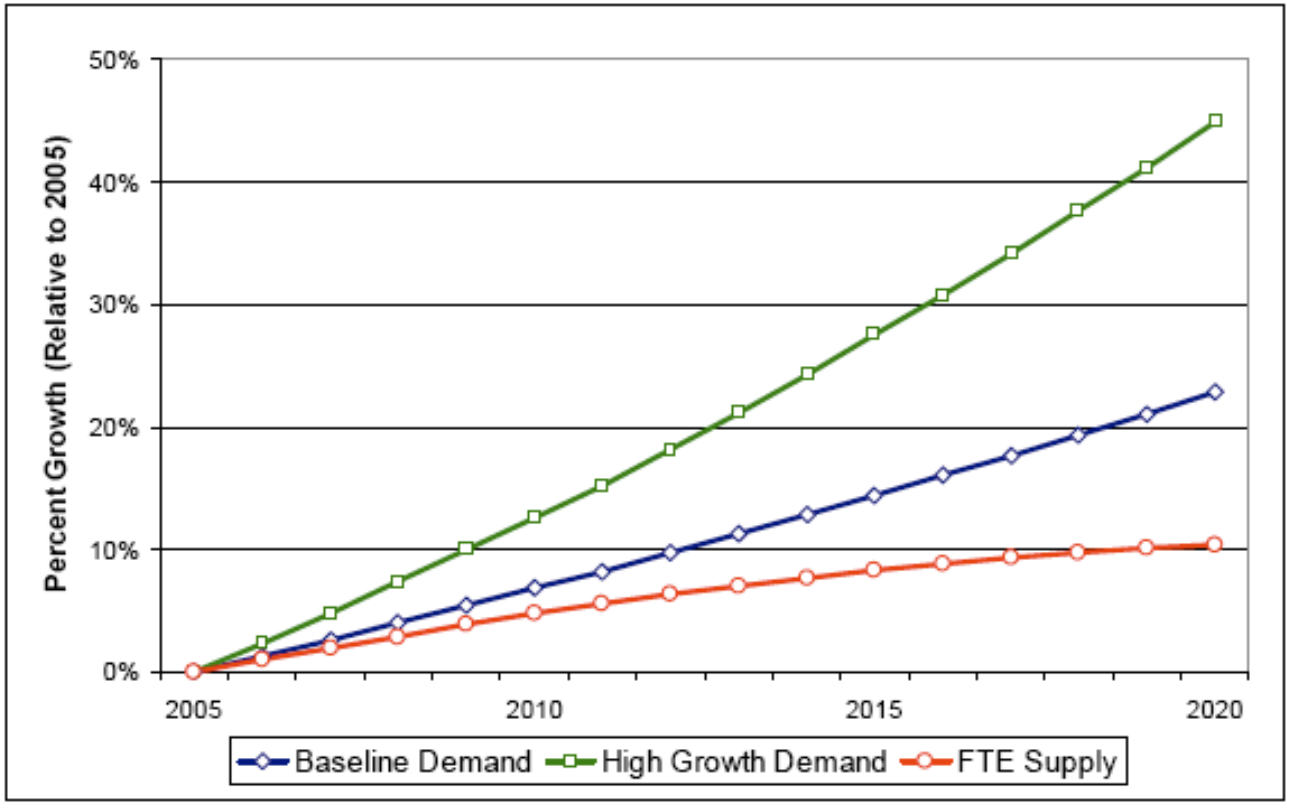
- Increasing demand for primary care providers!
- Transitions of care, mandated by duty hour restrictions will increase need for “providers”
- Coordination of (inpatient, high acuity) care is essential
- Changing demographics, understanding of the relationship between genetics and disease management will necessitate new workforce needs

Primary Care Supply and Demand



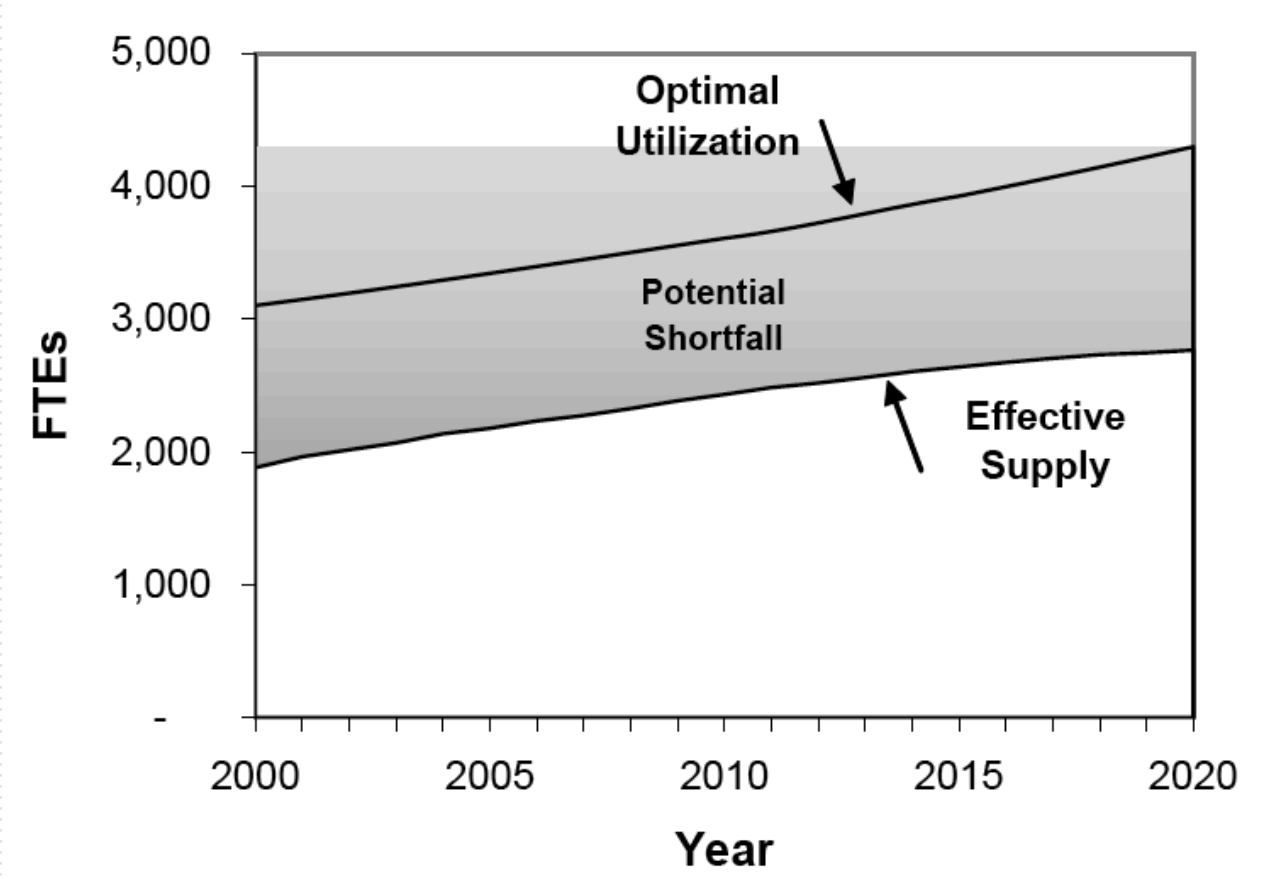
Physician Supply and Demand: Projections to 2020, U.S. Department of Health and Human Services, Health Resources and Services Administration , Bureau of Health Professions October 2006

Non-Primary Care Supply and Demand



Physician Supply and Demand: Projections to 2020, U.S. Department of Health and Human Services, Health Resources and Services Administration , Bureau of Health Professions October 2006

Intensivist Shortfall Projection

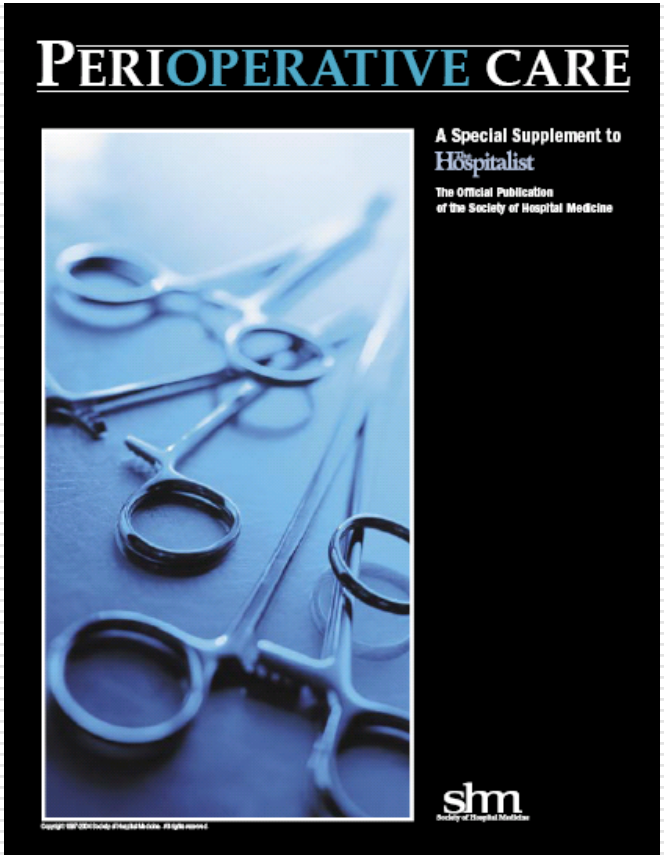


Report to Congress
The Critical Care Workforce: A Study of the Supply and Demand for Critical Care Physicians
2006

The Critical Care Anesthesiologist -- Perioperative Hospitalist?

"…if nature abhors a vacuum, the emergence of hospitalists as leaders both as practitioners and educators in the perioperative medicine arena was perhaps inevitable and, in any event, is *a very natural fit*."

Jim Pile, Editor, "The Hospitalist"



The Hospitalist, March 2005

Are We Meeting the Need? Critical Care Training Programs

- Anesthesia Accredited Programs[1]
  - 45 Programs (reduced from 47)
  - 62 Fellows in 2009, down from 69 (38% Female; 63% US Grads)
- Other Specialties[2]
  - Medicine (32 Programs, 136 Fellows – 87 First Year)
  - Pulmonary Medicine (133 Programs, 1266 Fellows – 3 years)
  - Surgery (94 Programs, 153 Fellows)
  - Neurology (25 Programs, 91 Diplomates through UCNS)
  - ED
  - Pediatrics (61 Programs, 357 Fellows)
  - Other

[1] ACGME Data

[2] Graduate Medical Education 2008-2009, JAMA 2009;302:1357

Critical Care Training
An Critical Link to the Future…

- Current ACGME-Approved Training
  - 48 Month Anesthesiology Continuum
    - Approved by RRC as of July, 2008
    - Increases Critical Care Exposure
- Innovative Programs
  - Integrated Anesthesia/Critical Care Training
  - Many Incorporate Scholarship into CCM Continuum
  - Multiple Models
    - Oregon Health Sciences
    - Johns Hopkins
    - UCSF
    - Columbia, …

Critical Care Curriculum-- Is it Sufficient?

- Mandatory resident rotations
  - Educational experiences, clinical opportunities vary
  - Clinical roles, responsibilities may compromise future interest
- Critical care fellowship
  - If you've seen one ICU, you've seen one ICU!
  - Limited (elective) exposure to relevant medical subspecialties, surgical experiences

Critical Care Medicine
Does Certification Change the Landscape?

- ABA Special Qualifications
- Pulmonary Critical Care Medicine Certification
- Other Specialty Training and Certification "Opportunities"
  - Surgery
  - Internal Medicine (the 900-Pound Gorilla)
  - Neurology
  - Emergency Medicine
  - Others

Why is Critical Care Essential to Anesthesiology ?

- Consistent with Clinical Expertise
  - Patient Care Roles and Responsibilities
  - Balance of Cognitive Expertise and Procedural Skills
  - Opportunity to Develop Perioperative Clinical Pathways
- Key Component of Perioperative Practice
- Enlarges (Maintains) Anesthesiology “Footprint”
  - Emphasizes the Anesthesiologist as Physician, Colleague
  - Distinguishes Anesthesiologists from Non-Physician Anesthetists, Other Providers
  - Enhances Intra-Operative Care of Critically Ill Patients
- Represents a Data-Rich Environment
- Preserves our Heritage

The Critical Care Anesthesiologist -- Our Role is Different?

- Critical Care Evolved From PACU Care
- Clinical Roles Differ
  - Critical Care Anesthesiologists “Live” in the ICU
  - Other Providers “Consult” on ICU Patients
    - Pulmonary Medicine
    - Surgical Critical Care
    - Trauma
  - Open versus Closed ICU
  - Virtual ICU Creates New Opportunities
- Management Responsibilities Consistent with Perioperative Roles and Skill Set

Critical Care

Is it financially viable?

Critical Care Services Financial Realities

- Payments for Direct Clinical Care
  - Evaluation and Management
    - Critical Care Consultations (99291, etc)
    - Hospital Visits
  - Procedural Services
- Other Sources of Payment
  - ICU “Management” Services
    - Administration
    - Triage
    - Rapid Response Team
    - Code Blue
    - Availability
  - Telemedicine, eICU?

Popular Wisdom: Pay PCPs More

Boston

THE BEST OF BOSTON EVERY DAY

FEATURE ARTICLE

WHY YOUR DOCTOR NEEDS A RAISE

The good news: A year into our grand healthcare experiment, nearly everyone in Massachusetts has insurance. The bad: It's never been harder to actually get in to see a doctor. The fix?

Pay primary care physicians more. Lots, lots more.

appointment with a primary care doctor—any primary care doctor. I didn't have a go-to M.D. already, but what I did have were the sorts of connections that I figured might make things easier: I'm a medical reporter for a national magazine, and my husband is training as a surgeon at a Boston hospital. I thought I'd find someone decent with a few quick phone calls.

Health Care Financing
HR 3200 SGR Replacement Formula

Evaluation and Management Services
GDP + 2%

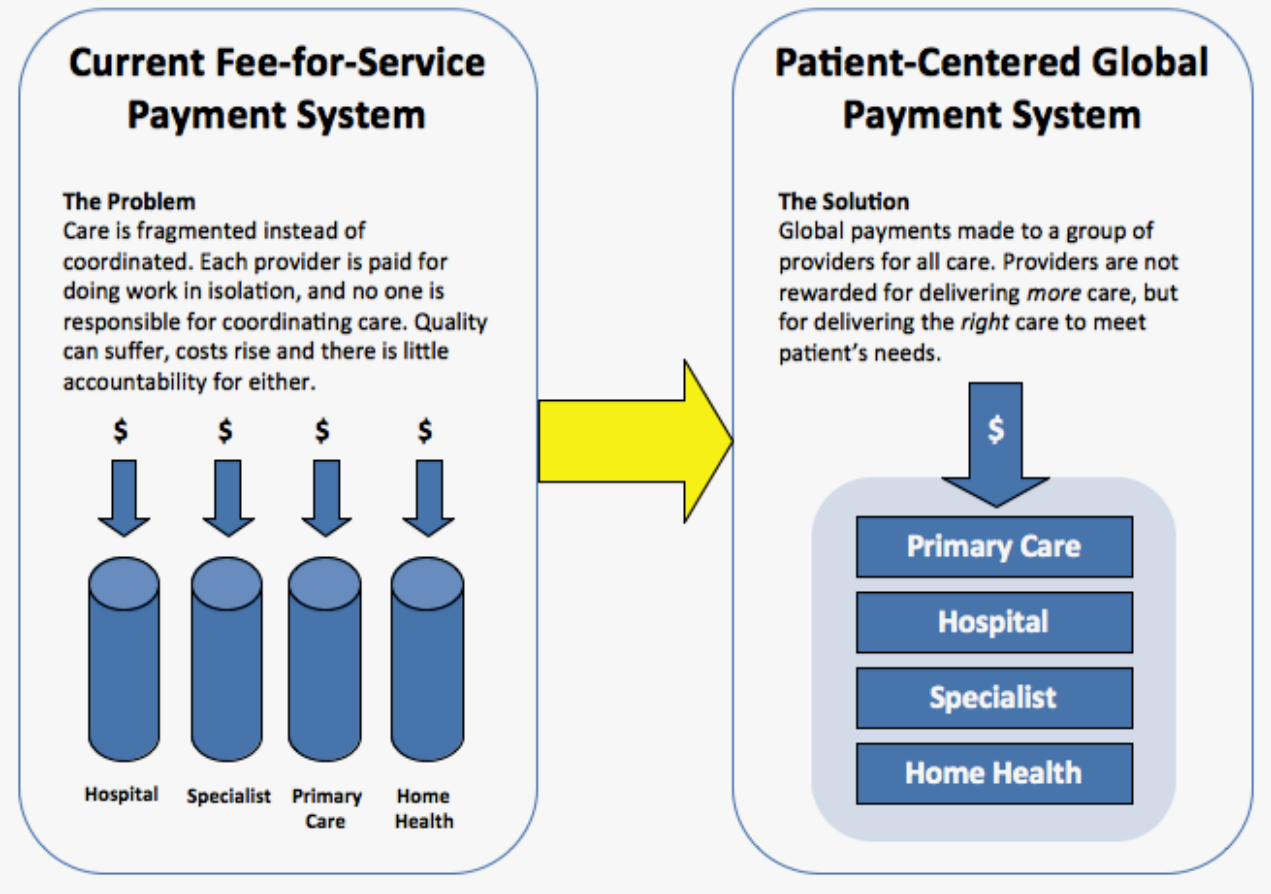
All Other Services
GDP + 1%

Update "Buckets"

Payment Reform
Is It Supportive of Critical Care?

- Bundled Payments → Accountable Care Organizations
  - Episode (Illness, Procedure) Based
  - Capitated Payment (Risk Adjusted with P4P)
- Local Disbursement of Bundled Payment
  - Local Perception of "Value-Added" Becomes Critical
- Comprehensive Anesthesiology Services Will *Include* Critical Care

How Will Payment Reform Affect Critical Care?



Mass. Special Commission on the Health Care Payment System, July 2009

Bundled Payment Proposals

SPONSOR	PRE-ACUTE CARE	INPATIENT HOSPITAL	INPATIENT PHYSICIAN	POST-ACUTE CARE	HOSPITAL READMISSION
ACE Demonstration		+	+		
House Tri Committee		+	+	+	
MedPAC		+	+	+	+
Natl Quality Forum	+	+	+	+	+
Senate Finance		+	+	+	+

Critical Care Medicine

There Is a Role for Anesthesiologists?

- We are *all* critical care providers
- New models of care demand our participation
  - Special skills
  - Dedication to the ICU
- Presence in the ICU supports our role as perioperative physicians
- Under health care reform, the role in the ICU creates new financial opportunities
- The ICU supports clinical and translational research opportunities for anesthesiology
- *and*, in the end, expanding our role in the ICU ***preserves our heritage***

Selected References

- Chudgar SM, Cox CE, Que LG, et al. Current teaching and evaluation methods in critical care medicine: Has the Accreditation Council for Graduate Medical Education affected how we practice and teach in the intensive care unit? Crit Care Med 2009;37:49-60
- Lettieri CJ, Shah AA, Greenburg DL. An intensivist-directed intensive care unit improves clinical outcomes in a combat zone. Crit Care Med. 2009; 37:1256-60
- Lipschik GY, Kelley MA. Models of critical care delivery: physician staffing in the ICU. Semin Respir Crit Care Med. 2001;22:95-100
- Multz AS, Chalfin DB, Samson IM, et al. A "closed" medical intensive care unit (MICU) improves resource utilization when compared with an "open" MICU. Am J Respir Crit Care Med. 1998;157:1468-73
- Murias G, Sales B, García-Esquirol O, et al. Telemedicine: Improving the quality of care for critical patients from the pre-hospital phase to the intensive care unit. Med Intensiva. 2009 Oct 5
- Prasad M, Iwashyma TJ, Christie JD, et al. Effect of work-hour regulations on intensive care unit mortality in United States teaching hospitals. Crit Care Med 2009;37:2564-69 Scribante J, Bhagwanjee S. National audit of critical care resources in South Africa - open versus closed intensive and high care units. S Afr Med J. 2007;97:1319-22
- Treggiari MM, Martin DP, Yanez ND, Caldwell E, et al. Effect of intensive care unit organizational model and structure on outcomes in patients with acute lung injury. Am J Respir Crit Care Med. 2007;176:685-90