Improving Your Bottom Line? Anesthesia Models Are the Answer

Tracy P. Young, MSNA, MBA, CRNA
Co-founder, Chief operating Officer
Essential Anesthesia Management

ESSENTIAL
ANESTHESIA MANAGEMENT

LEARNING OBJECTIVES

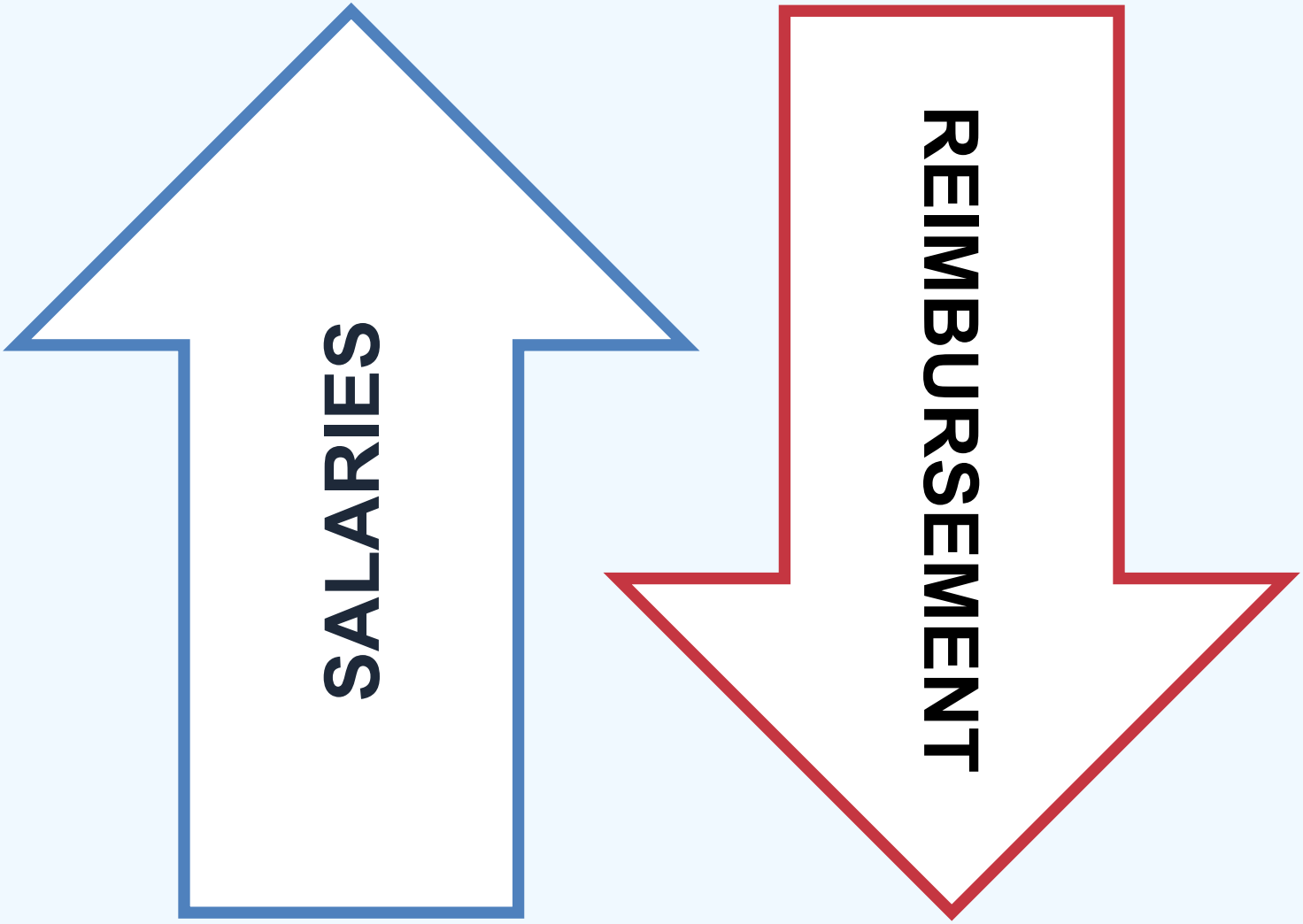
- Explore suggested changes in anesthesia staffing models that limit service duplication, increase care access, and reduce costs
- Review evidence demonstrating the cost-effectiveness and safety of CRNA anesthesia-driven anesthesia care models
- Discuss strategies to assist centers in navigating federal and state regulatory requirements, bylaws and policies, and the business case for implementing the EDAM

Why are we here?

HOSPITAL COST FOR PROVIDING ANESTHESIA:

- Operating expense
- **Subsidy** (supplement/stipend)

Anesthesia Market Disruption



Anesthesia Market Disruption

ADDITIONAL FACTORS

- Real or Manufactured under supply of clinical providers
- Increased demand for service
- Large anesthesia management group (AMG) conflicts and concerns:
  - No Surprises Act
  - FTC crackdown on business practices
- Burden of economy on consumer

Anesthesia Market Disruption

BECKER'S ASC REVIEW

The Anesthesia Conundrum

- Shortage of anesthesia providers
- Misunderstanding of priorities and workflow of an ASC
- Declining CMS reimbursement with increasing CMS population
- Increase in procedures moving to outpatient setting
- Anesthesia subsidies:

  "When salaries, wages and benefits are higher for an outpatient total joint than the anesthesia reimbursement, we have a problem."

Newitt P. The Anesthesia Conundrum. Becker's ASC Review. Published January 29, 2024. Available from: https://www.beckersasc.com/anesthesia/the-anesthesia-conundrum.html

What is a CRNA?

Certified Registered Nurse Anesthetist

TRAINING

BSN
Critical-care experience
Highly-competitive entry
Education/training:

- 2.5-3 years
- Clinical residency
- Master's or Doctoral degree

PRACTICE

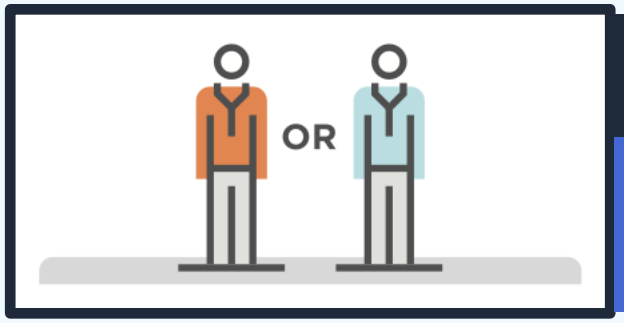
150 years of practice
Practice in all settings:

- Rural America
- US Military
- VAMC

> 50M anesthetics/year
Rigorous CPC program
AANA-COA-NBCRNA

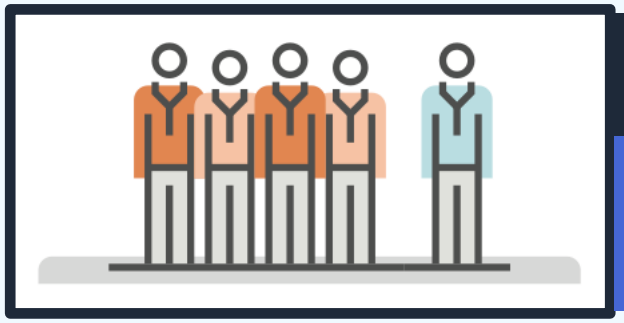
https://www.anesthesiafacts.com/wp-content/uploads/2023/09/2023-CRNA-Fast-Facts-General.pdf

Staffing Options



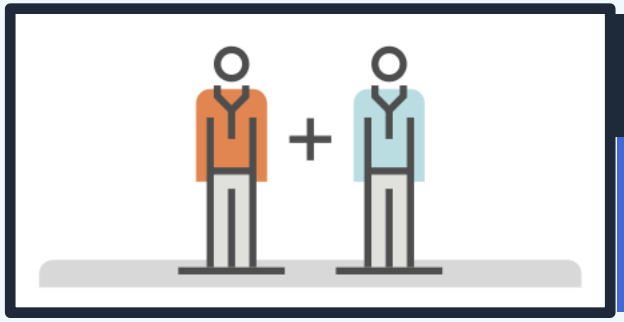
MD *or* CRNA only

- Provider working independently
- One provider/point of service



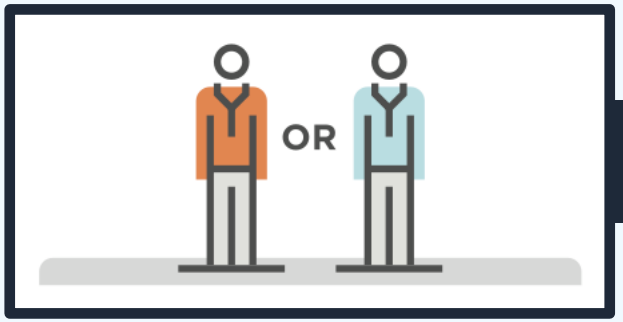
Medical Direction

- One MD in ratio to 1-4 CRNAs
- Billing regulations (TEFRA)



Collaborative Practice

- Interchangeable clinical roles
- Tailored to facility/schedule



MD *or* CRNA only

ACCESS

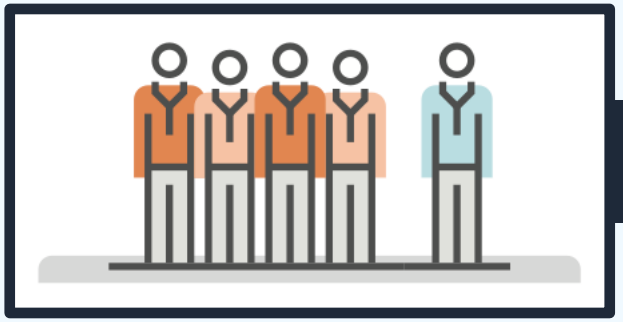
- Number of providers related to number of rooms
- Board runner? Float provider? Flip rooms?

DUPLICATION OF SERVICE

- Limited, if any duplication

COST

- Salary of provider x number of personnel
- Balanced against room/case-flow efficiency



Medical Direction

ACCESS

- Limited by “supervision ratio” (1 MD:1-4 CRNAs)
- Strict TEFRA regulations for billing compliance
- Physicians are unavailable to administer anesthesia personally
- Highest risk for fraudulent billing*

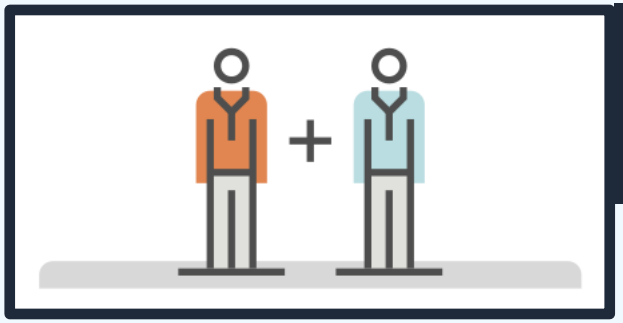
DUPLICATION OF SERVICE

- Redundant providers for EVERY point of service

COST

- MD salary + (CRNA salary x fixed ratio)
- In increments of *four* points of service

Influence of Supervision Ratios by Anesthesiologists on First-case Starts and Critical Portions of Anesthetics, Richard H. Epstein, M.D., C.P.H.I, M.S., Franklin Dexter, M.D., Ph.D



Collaborative Practice

Instead of "medical direction" ratios

Best option for Massachusetts

ACCESS

- Ultimate flexibility to meet demands of schedule
- Interchangeable roles, adjusted to facility/schedule

DUPLICATION OF SERVICE

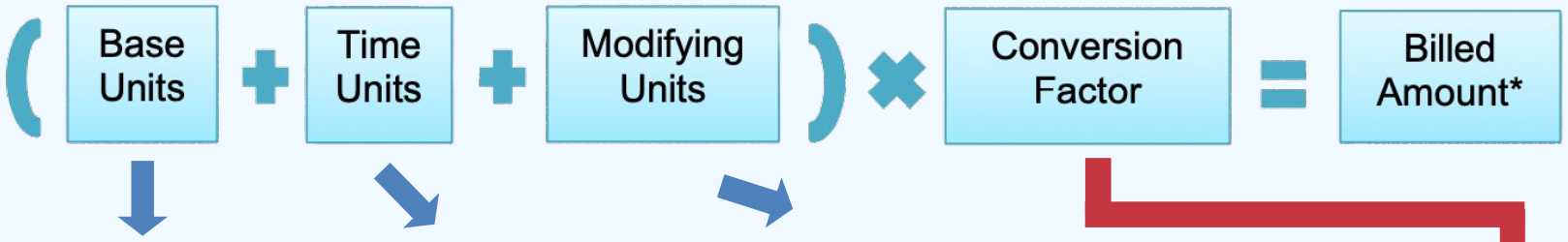
- No duplication, "next person up" mentality

COST

- Salary of provider x *optimized* numbers and types of providers

Anesthesia Economics

How is an anesthesia bill generated?



CPT code for given procedure assigned set number of base units

1 unit for every 15 minutes of "continuous" anesthesia time

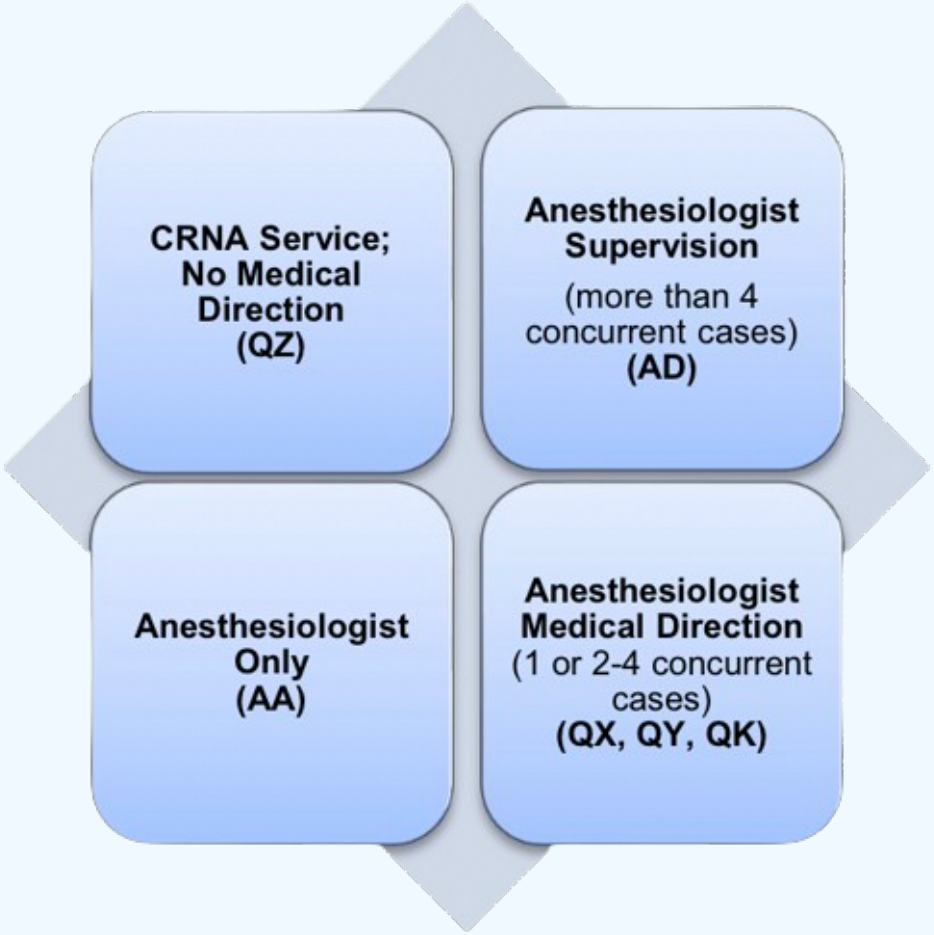
ASA physical status, emergency, extremes of age, etc.

Private insurance: Negotiated* between group/provider and payor
CMS/Medicaid: Fixed rate, no negotiation

https://www.anesthesiafacts.com/wp-content/uploads/2022/03/Anesthesia-Billing-Basics.pdf

Anesthesia Economics

Billing Modifiers



https://www.anesthesiafacts.com/wp-content/uploads/2022/03/Anesthesia-Billing-Basics.pdf

Anesthesia Economics

Practice Model Reimbursements

Practice Model	Anesthesiologist Allowed	CRNA Allowed
CRNA service; No medical direction	N/A	100%
Anesthesiologist only	100%	N/A
Medical direction	50%	50%
Payment at the medically supervised rate*	3 units (+ 1 unit for induction)	50%

**This is different from the CMS Part A Condition of Participation supervision requirement*

Massachusetts is no longer subject to the CMS Part A Condition of Participation supervision requirement since Governor Healey opt-ed out of it in June 2024, making Massachusetts the 25th state to do so.

https://www.anesthesiafacts.com/wp-content/uploads/2022/03/Anesthesia-Billing-Basics.pdf

Anesthesia Economics

Sample Reimbursement Model

CASE

- Total Knee Arthroplasty
- 126 min (average), ASA 2
- Medicare

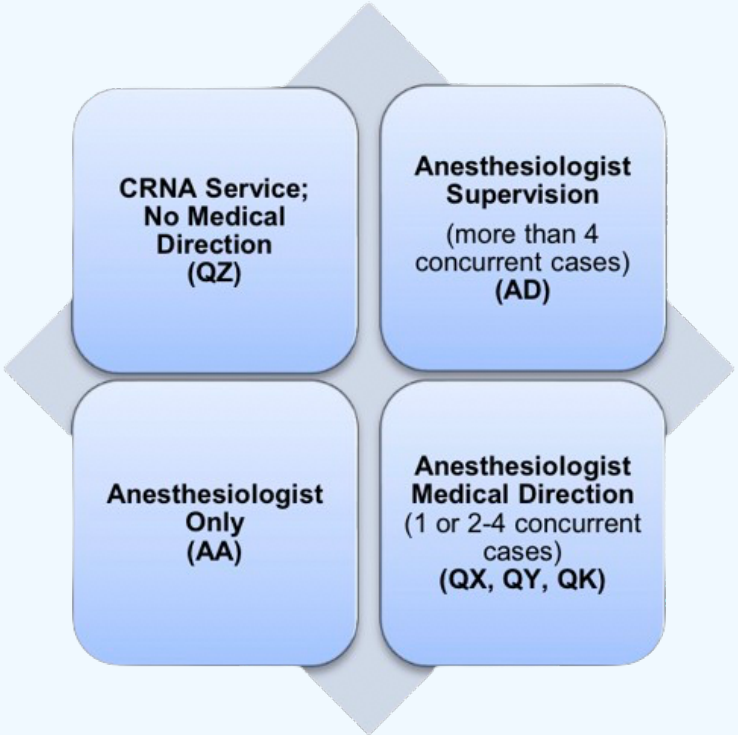
(7 + 9 + 0) × $20.44 = $327

https://www.anesthesiafacts.com/wp-content/uploads/2022/03/Anesthesia-Billing-Basics.pdf

Anesthesia Economics

Sample Reimbursement Model

(7 + 9 + 0) × $20.44 = $327



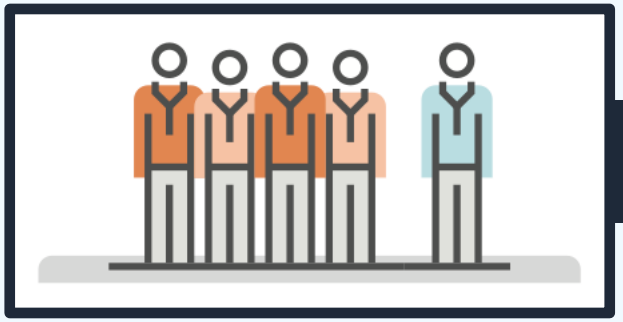
CRNA: $327

MD: $327

CRNA: $163.50
MD: $61.32

CRNA: $163.50
MD: $163.50

https://www.anesthesiafacts.com/wp-content/uploads/2022/03/Anesthesia-Billing-Basics.pdf

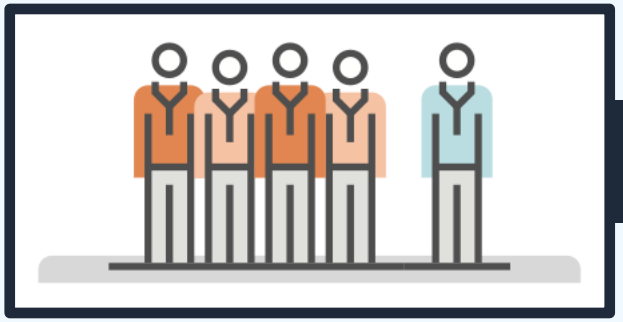


Medical Direction

Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA)

1) Perform a **pre-anesthetic examination and evaluation**
2) Prescribe the **anesthesia plan**
3) Personally participate in the most demanding procedures in the anesthesia plan, including **induction and emergence**, if applicable
4) Ensure that any **procedures** in the anesthesia plan that he/she does not perform are **performed by a qualified anesthetist**
5) Monitor the course of the anesthesia administration at **frequent intervals**
6) Remain **physically present and available** for immediate diagnosis and treatment of emergencies
7) Provide indicated **post-anesthesia care**

Stein E. Medical Direction Versus Medical Supervision. September 2016. Available at: www.asahq.org/advocacy-and-asapac/fda-and-washington-alerts/washington-alerts/2016/09/medical-direction-versus-medical-supervision. Accessed 12/10/2023



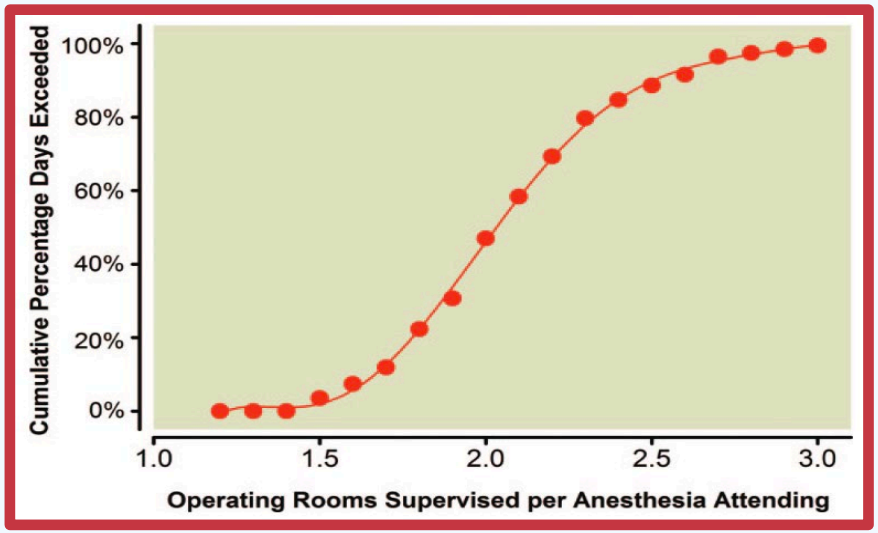
Medical Direction

Influence of Supervision Ratios by Anesthesiologists on First-case Starts and Critical Portions of Anesthetics

Richard H. Epstein, M.D., C.P.H.I, M.S.,* Franklin Dexter, M.D., Ph.D.†

FINDINGS

- "Even at a supervision ratio of 1:2, lapses occurred on 35% of days"
- "The peak incidence occurred before 8:00 AM, *P*<0.0001"
- "The average time from operating room entry until ready for prepping and draping during first case starts was 22.2 min"



Epstein RH, Dexter F. Influence of Supervision Ratios by Anesthesiologists on First-case Starts and Critical Portions of Anesthetics. Anesthesiology. 2012;116(3):683-691.

Moving Toward Efficiency

PROCESS

- Determine number of anesthetizing locations staffed with CRNAs
- Determine needed number of MDs based on local needs of facility to support throughput

RESULTS

- Flexible model, based on needs of facility & patients
- Providers adjust workflow to match demand, not to satisfy billing requirements
- Clinicians utilize complete set of skills and training to maximize production

Efficiency-Driven Anesthesia Model (EDAM)

Efficiency-Driven Anesthesia Model

CONCEPTS

- Provides a decision-making framework adopted from the science of public policy
- Identifies the most appropriate delivery model for facility
- Balances principles of efficiency, equity, and effectiveness
- Maximizes available resources by placing staffing efficiencies as central objective

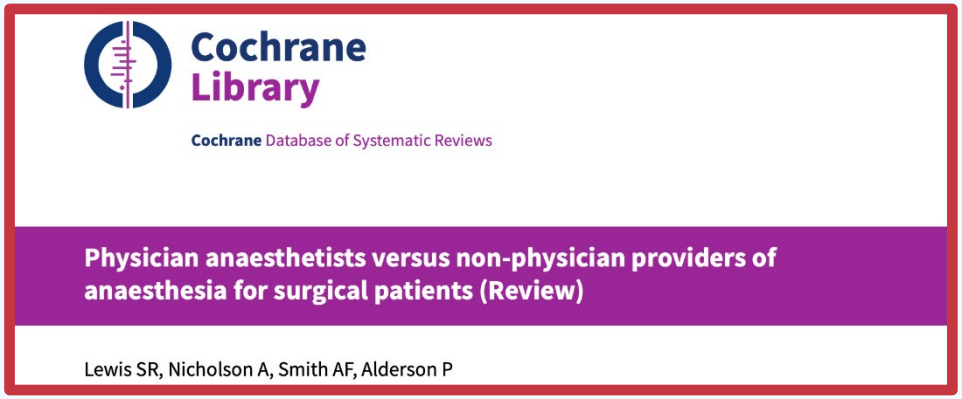
QUESTIONS

- Does the model support patient safety?
- Is the model truly cost-effective?

Patient Safety

EPIDEMIOLOGY[1]

- Anesthesia-related ***mortality***: 0.82 per 100,000 surgical discharges
- Anesthesia-related ***morbidity***: 2 per 1,000 inpatient procedures
  4 per 10,000 outpatient procedures



REVIEW

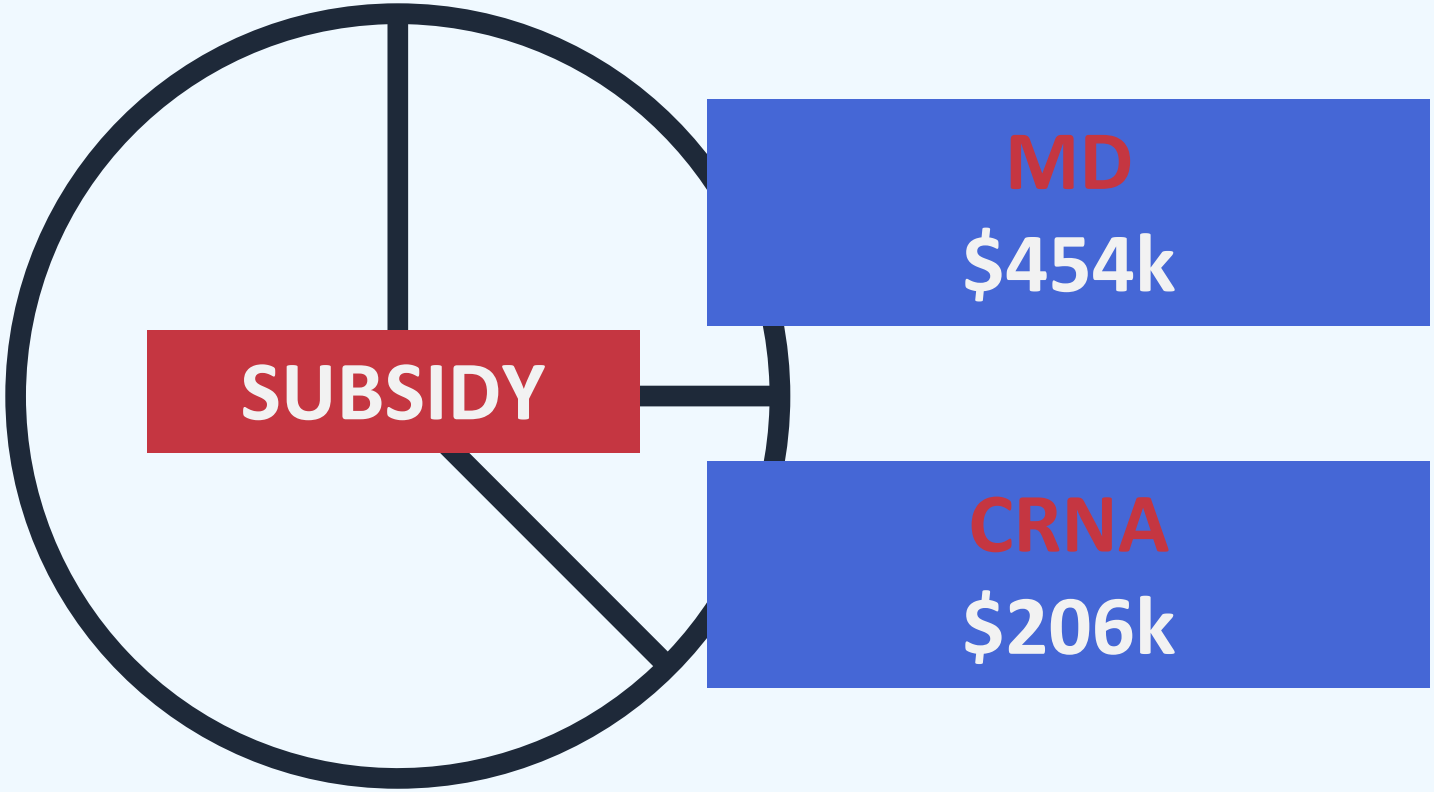
- 6 studies
- 1,563,820 participants

"No definitive statement can be made about the possible superiority of one type of anesthesia care over another."[2]

1. Li G, Warner M, Lang BH, Huang L, Sun LS. Epidemiology of anesthesia-related mortality in the United States, 1999–2005. Anesthesiology. 2009;110(4):759–765.
2. Lewis SR, Nicholson A, Smith AF, Alderson P. Physician anaesthetists versus non-physician providers of anaesthesia for surgical patients. Cochrane Database Syst Rev. 2014;(7):CD010357.

Cost Effectiveness

Salaries are PRIMARY VARIABLE!

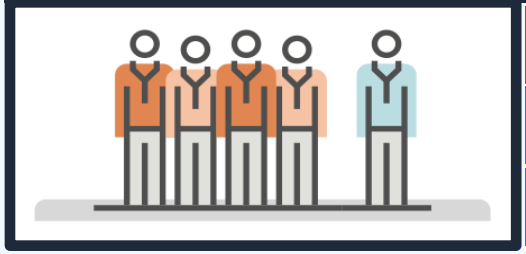


Cost Effectiveness

Basic Staffing Model

6 Points of Service

Medical Direction

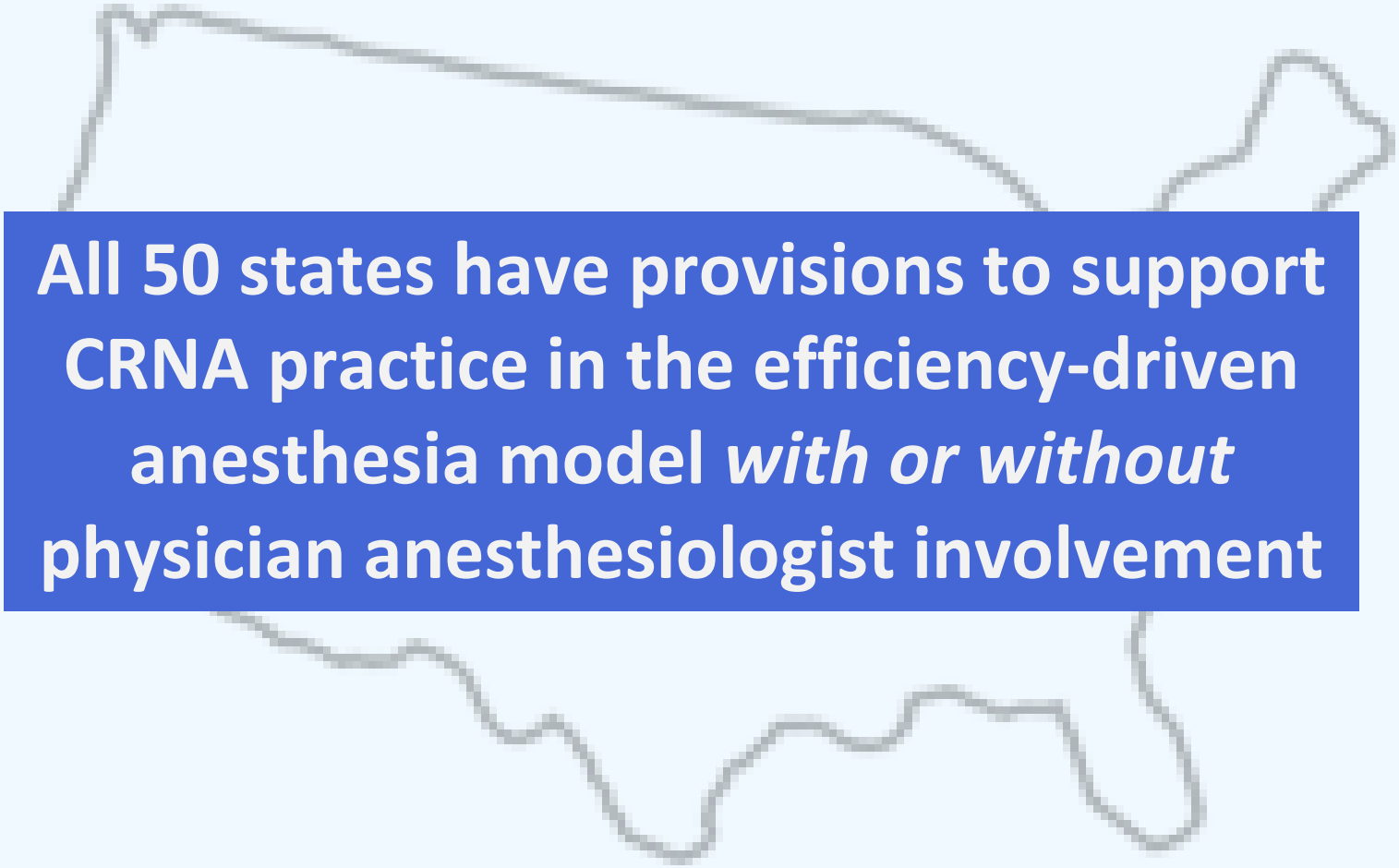


MD		MD	
CRNA	CRNA	CRNA	CRNA
CRNA	CRNA	$2.14 M	

Efficiency Driven Anesthesia Model

CRNA	CRNA	CRNA -OR- MD	
CRNA	CRNA	$1.44 - 1.69 M	
CRNA	CRNA		

Implementation of EDAM



All 50 states have provisions to support CRNA practice in the efficiency-driven anesthesia model *with or without* physician anesthesiologist involvement

Implementation of EDAM

Federal & State Regulations

Facility Bylaws & Policies

Business Case

Federal & State Regulations

CMS Conditions of Participation (CoP)

§482.52: If the hospital furnishes anesthesia services, they must be provided in a well-organized manner ***under the direction of a qualified doctor of medicine or osteopathy.*** The service is responsible for all anesthesia administered in the hospital.

Centers for Medicare & Medicaid Services. Clarification of the Interpretive Guidelines for the Anesthesia Services Condition of Participation. CMS Manual System, Pub. 100-07 State Operations, Provider Certification, Transmittal 59. Department of Health & Human Services; 2010.

Federal & State Regulations

CMS Conditions of Participation (CoP)

§482.52(a) Standard: Organization and Staffing
Anesthesia must be administered only by –

(4) A certified registered nurse anesthetist (CRNA), who, *unless exempted in accordance with paragraph (c) of this section*, is ***under the supervision of the operating practitioner or of an anesthesiologist*** who is immediately available if needed

Centers for Medicare & Medicaid Services. Clarification of the Interpretive Guidelines for the Anesthesia Services Condition of Participation. CMS Manual System, Pub. 100-07 State Operations, Provider Certification, Transmittal 59. Department of Health & Human Services; 2010.

Massachusetts is not subject to the CMS CoP rule

Massachusetts is no longer subject to the CMS Part A Condition of Participation supervision requirement since Governor Healey opt-ed out of it in June 2024, making Massachusetts the 25th state to do so

OFFICE OF THE GOVERNOR
COMMONWEALTH OF MASSACHUSETTS
STATE HOUSE BOSTON, MA 02133
(617) 725-4000

MAURA T. HEALEY
GOVERNOR

KIMBERLEY DRISCOLL
LIEUTENANT GOVERNOR

May 29, 2024

Administrator Chiquita Brooks-LaSure
Centers for Medicare and Medicaid Services
314G Hubert H. Humphrey Building
200 Independence Ave., S.W.
Washington, D.C. 20201

Dear Administrator Brooks-LaSure,

I hereby notify you that the Commonwealth of Massachusetts requests exemption from physician supervision of Certified Registered Nurse Anesthetists (CRNAs) under 42 CFR 482.52 (hospitals), 42 CFR 485.639 (critical access hospitals), 42 CFR 485.524 (rural emergency hospitals), and 42 CFR 416.42 (ambulatory surgical centers).

I attest that I have consulted with the Massachusetts Board of Registration in Nursing and Board of Registration in Medicine about issues related to access to and the quality of anesthesia services in Massachusetts. I have concluded that it is in the best interests of Massachusetts citizens to opt-out of the current physician supervision requirement, as provided in the federal regulations, and that the opt-out is consistent with Massachusetts law.

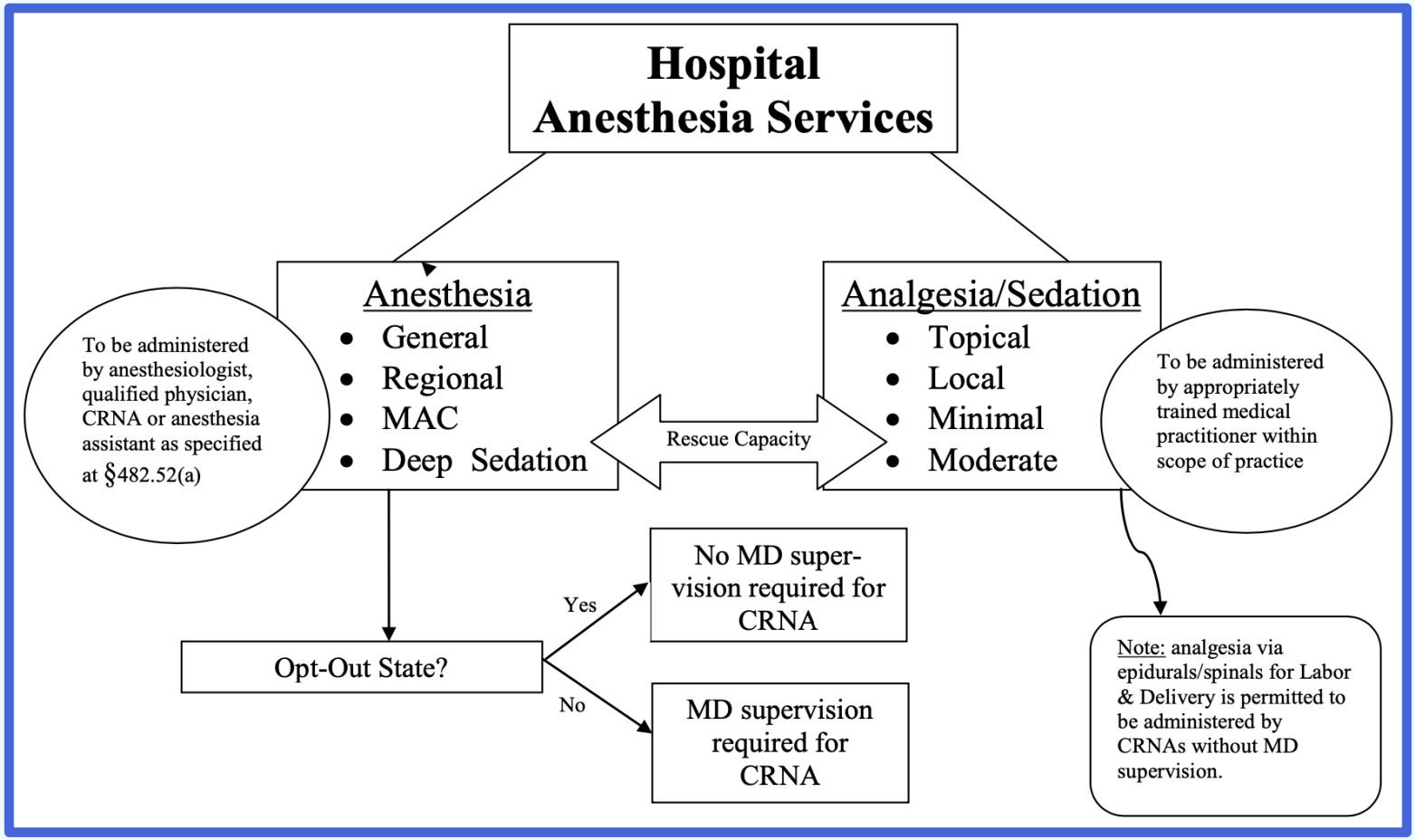
This letter constitutes my formal notification of the Commonwealth of Massachusetts opt-out.

Sincerely,

Maura T. Healey
Governor

Federal & State Regulations

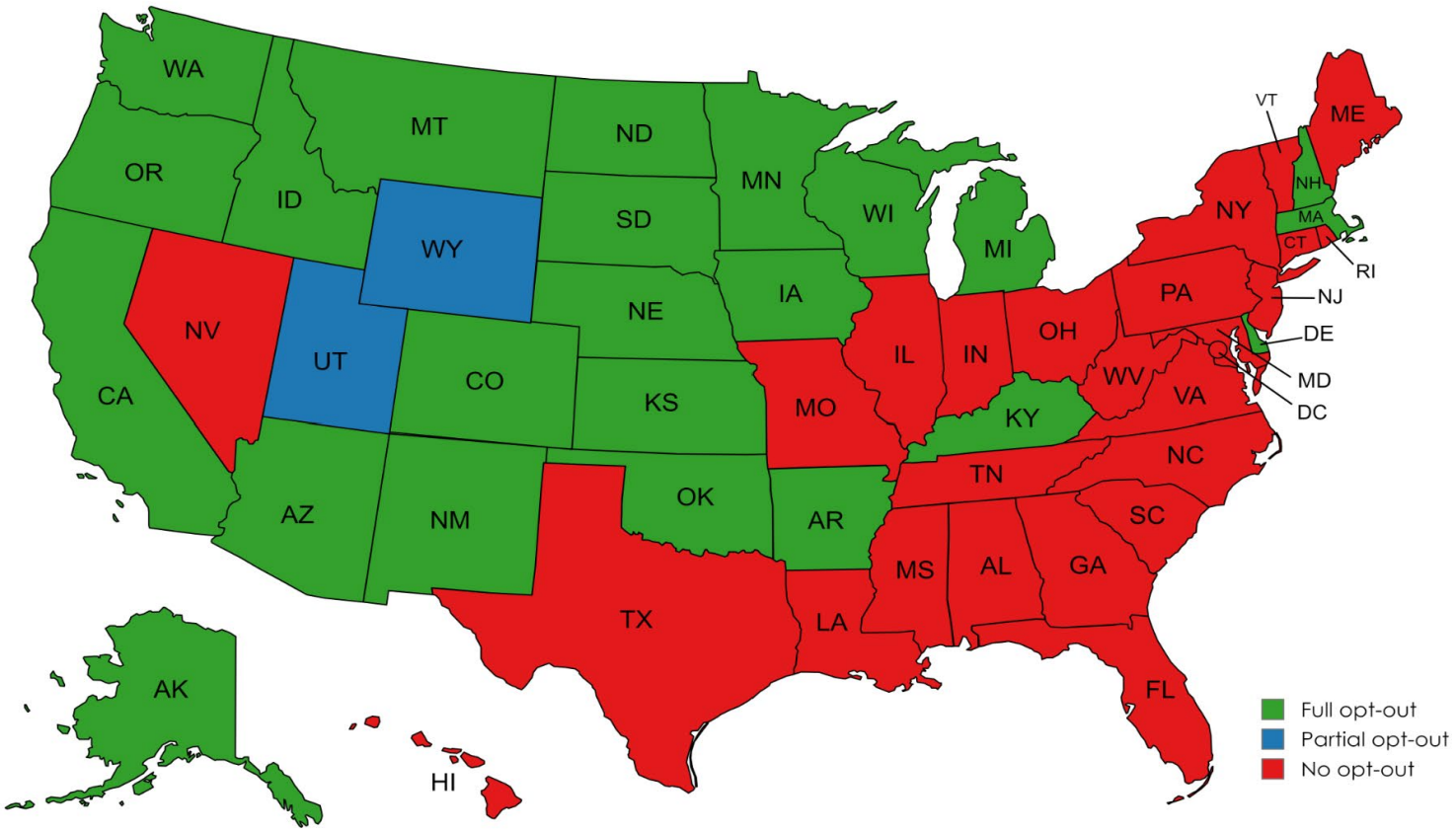
CMS Conditions of Participation (CoP)



Centers for Medicare & Medicaid Services. Clarification of the Interpretive Guidelines for the Anesthesia Services Condition of Participation. CMS Manual System, Pub. 100-07 State Operations, Provider Certification, Transmittal 59. Department of Health & Human Services; 2010.

Federal & State Regulations

CMS CoP "Opt-out"



Federal & State Regulations

State Regulations

There are no state laws or regulations requiring physician supervision of CRNA practice in Massachusetts

244 CMR 4.00

Facility Bylaws & Policies

FACILITY BYLAWS & POLICIES SUPERCEDE ALL FEDERAL & STATE REGULATIONS

FACILITY BYLAWS & POLICIES

FEDERAL & STATE REGULATIONS

To allow greatest flexibility in anesthesia model, facility bylaws & policies should ***mirror*** federal/state regulations

Bylaws that are more restrictive than laws/regulations can increase exposure to liability in the event there is an inadvertent deviation from that bylaw or policy

Blumenreich G (1997) Legal briefs: LaCroix case. Journal of the American Association of Nurse Anesthetists. Vol. 65/No. 5

Business Case for EDAM

PATIENT SAFETY

- Preponderance of evidence demonstrating safe delivery of anesthesia, regardless of provider type

COST EFFECTIVENESS

- Salaries are primary driver of subsidy
- Provider type and related salary tailored to needs of facility
- Flexibility of model can optimize daily case workflow

ENVIRONMENT

- Autonomy directly proportional to job satisfaction for CRNAs (retention?) It is important to note that

ANALYSIS

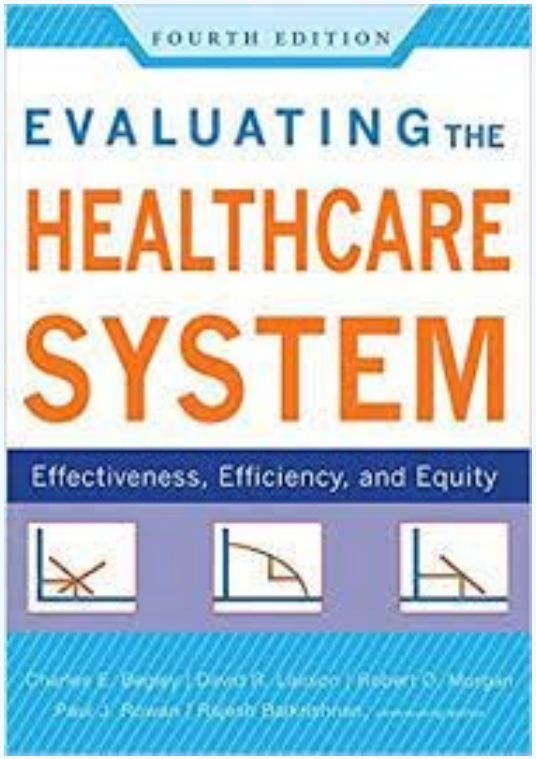
- “3-E Model” for policy analysis

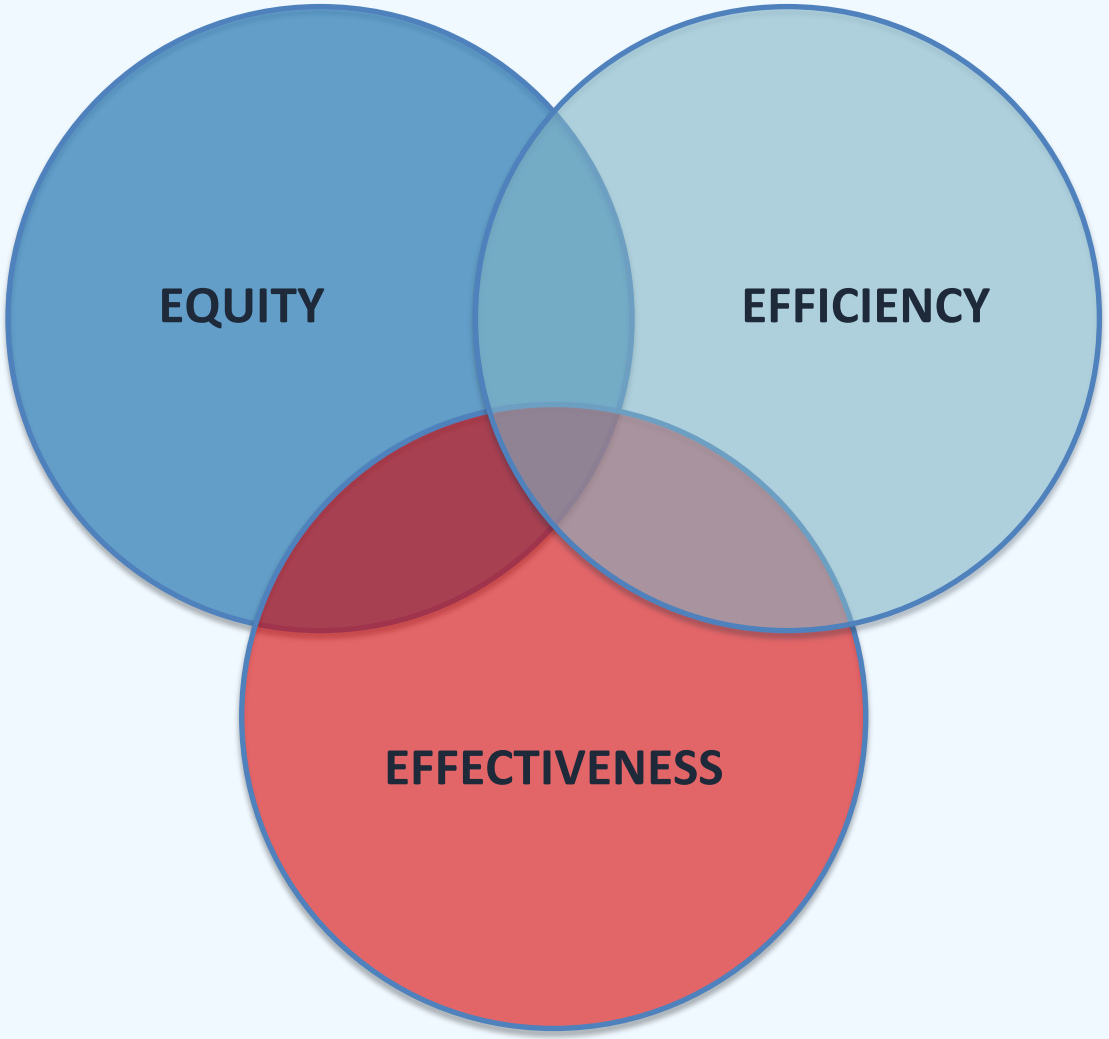
Why are Massachusetts facilities struggling to recruit and retain CRNAs?

ENVIRONMENT

- Autonomy is directly proportional to job satisfaction for CRNAs
- *It is important to note that the Massachusetts Association of Nurse Anesthetists **is NOT** advocating for the elimination of physician anesthesiologists from patient care*
- MANA ***IS*** advocating for practice models that allow *BOTH* CRNAs and physician anesthesiologists to *personally* administer anesthesia and practice to their full scope of practice without rigid supervision models
- CRNAs are crossing state lines and leaving Massachusetts in search of these practice models

“3-E Model” for Policy Analysis





Begley CE, Lairson D, Morgan RO. *Evaluating the Healthcare System: Effectiveness, Efficiency, and Equity*. Aupha/Hap Book; 2013.

“3-E Model” for Policy Analysis

EDAM Policy Analysis

EQUITY

- Ability of the facility to provide surgical services
- Ability of the surgeon to schedule cases

EFFECTIVENESS

- Anesthesia services available for every scheduled case
- Anesthetic procedures delivered in timely and safe manner

EFFICIENCY

- Case workflow matches needs of facility
- Cost to run ORs supports financial goals of facility

Anesthesia Market Solutions

BECKER'S ASC REVIEW

The Anesthesia Conundrum

John Brady, CEO at Geneva, Ill.-based Fox Valley Orthopedics, is ***looking to other models***, including CRNA-only models. "Ensuring clinical ***quality and patient safety should be the priorities***, as more ASCs shift to this type of model, they should be able to ***better control overall costs and avoid or minimize costly management stipends*** charged by anesthesia groups," he told *Becker's*.

Efficiency-Driven Anesthesia Model!

Newitt P. The Anesthesia Conundrum. Becker's ASC Review. Published January 29, 2024. Available from: https://www.beckersasc.com/anesthesia/the-anesthesia-conundrum.html

anesthesiafacts.com

contact@masscrna.com

QUESTIONS?

contact@masscrna.com

References

Newitt P. The Anesthesia Conundrum. Becker's ASC Review. Published January 29, 2024. Available from: https://www.beckersasc.com/anesthesia/the-anesthesia-conundrum.html

Stein E. Medical Direction Versus Medical Supervision. September 2016. Available at: www.asahq.org/advocacy-and-asapac/fda-and-washington-alerts/washington-alerts/2016/09/medical-direction-versus-medical-supervision. Accessed 12/10/2023

Epstein RH, Dexter F. Influence of Supervision Ratios by Anesthesiologists on First-case Starts and Critical Portions of Anesthetics. Anesthesiology. 2012;116(3):683-691.

Li G, Warner M, Lang BH, Huang L, Sun LS. Epidemiology of anesthesia-related mortality in the United States, 1999–2005. Anesthesiology. 2009;110(4):759–765.

Lewis SR, Nicholson A, Smith AF, Alderson P. Physician anaesthetists versus non-physician providers of anaesthesia for surgical patients.
Cochrane Database Syst Rev. 2014;(7):CD010357.

Medical Management Group Association; mgma.com

Begley CE, Lairson D, Morgan RO. *Evaluating the Healthcare System: Effectiveness, Efficiency, and Equity*. Aupha/Hap Book; 2013.