Improving Your Bottom Line? Anesthesia Models Are the Answer

Tracy P. Young, MSNA, MBA, CRNA

Co-founder, Chief Operating Officer

Essential Anesthesia Management

&

Melissa Croad, MSNA, CRNA, APRN

President-Elect 2024-2025

Government Relations

Massachusetts Association of Nurse Anesthesiology

LEARNING OBJECTIVES

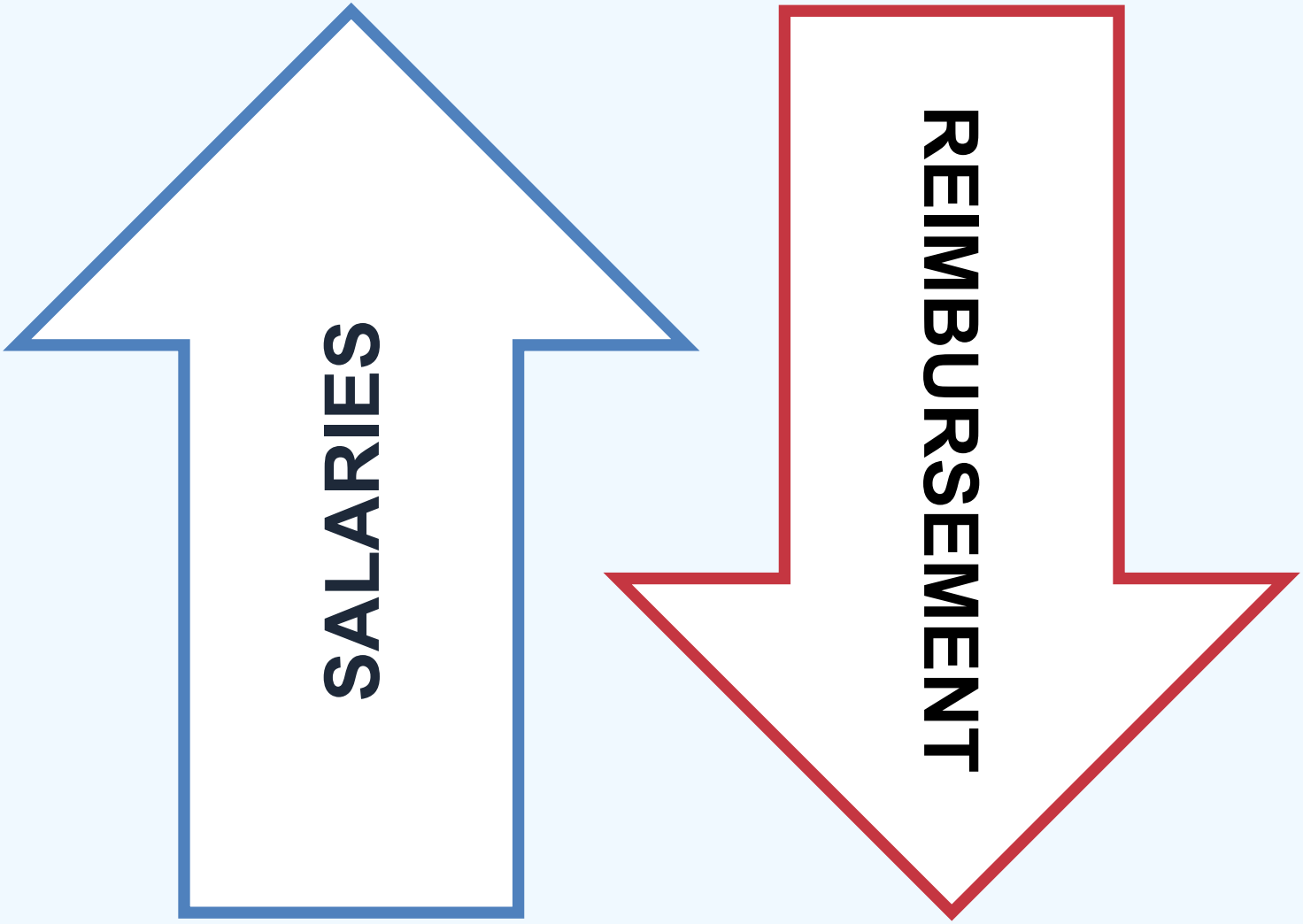
- Explore suggested changes in anesthesia staffing models that limit service duplication, increase care access, reduce costs and risk of fraudulent billing
- Review evidence demonstrating the cost-effectiveness and safety of CRNA-driven anesthesia care models
- Discuss strategies to assist centers in navigating federal and state regulatory requirements, bylaws and policies, and the business case for implementing Efficiency-Driven Anesthesia Modeling (EDAM)
- Focus on the “3-E Model” for policy analysis

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

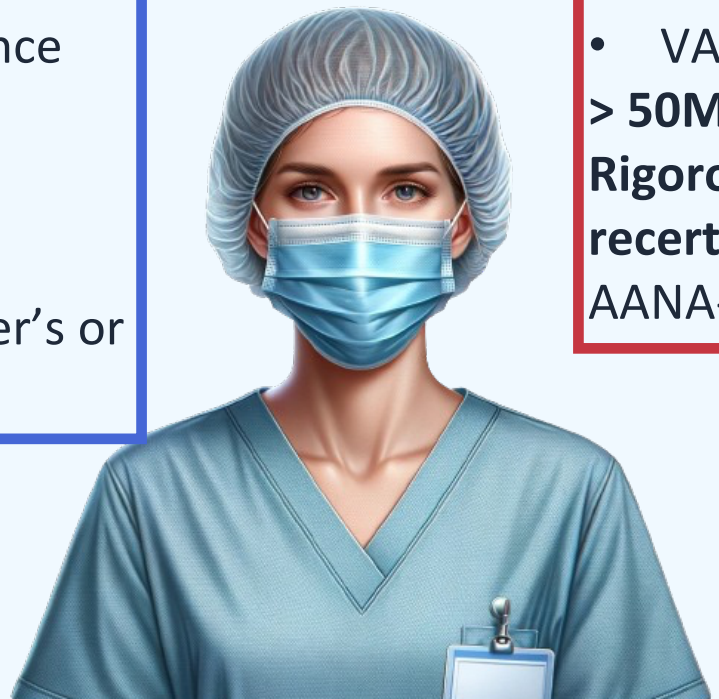
Requirements for highly competitive entry into training:

- BSN
- Critical-care experience

Education/training:

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

AANA
American Association of
NURSE ANESTHESIOLOGY
CRNA focused. CRNA inspired.



PRACTICE

150 years of practice
Practice in all settings:

- Rural America
- US Military
- VAMC

> 50M anesthetics/year
Rigorous accreditation and recertification programs:
AANA-COA-NBCRNA

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

Massachusetts CRNAs

Practice Authority

- Authorized as Advanced Practice Registered Nurses (APRNs)
- Independent practitioners with full practice authority
- Can practice independently or in collaboration with physicians
- Regulated by the Board of Registration in Nursing

Standards of Care

- Provide the same standard of anesthesia care as other anesthesia providers.

Massachusetts statute requires CRNAs:

- Responsible for their own practice
- Required to carry liability insurance

Practice Settings: any setting where anesthesia care is provided:

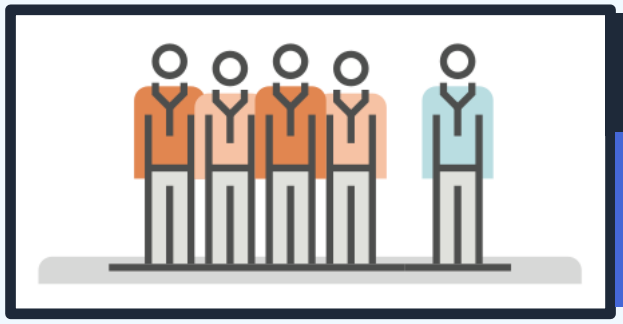
- Hospitals
- Outpatient settings
- Ambulatory surgery centers
- Cosmetic surgery offices
- Dental offices
- Ketamine clinics
- Pain clinics

Opt-Out

- Massachusetts Gover Healey opted out of the federal Medicare Part A CRNA supervision rule as of June 4, 2024

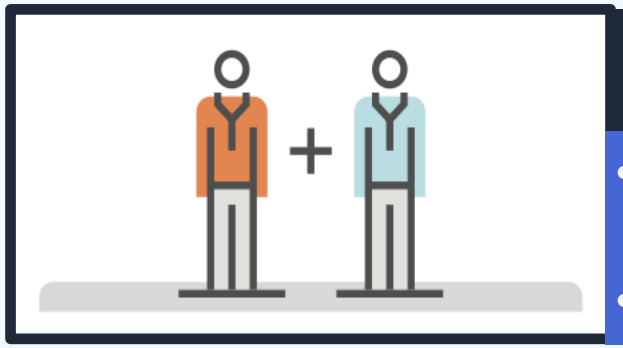
(Commonwealth of Massachusetts, 2021), (Centers for Medicare and Medicaid [CMS], 2001)

Staffing Options



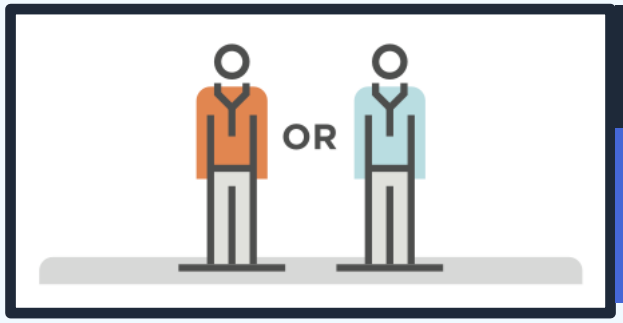
Medical Direction

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



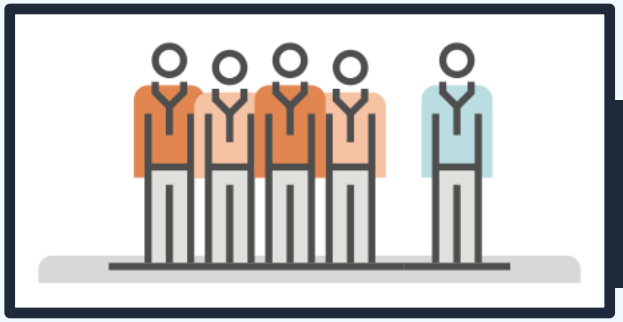
Collaborative Practice

- Interchangeable CRNA and anesthesiologist roles
- Tailored to facility/schedule



MD *or* CRNA only

- Provider working independently
- One provider/point of service



Medical Direction

Prevalent in Massachusetts

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*

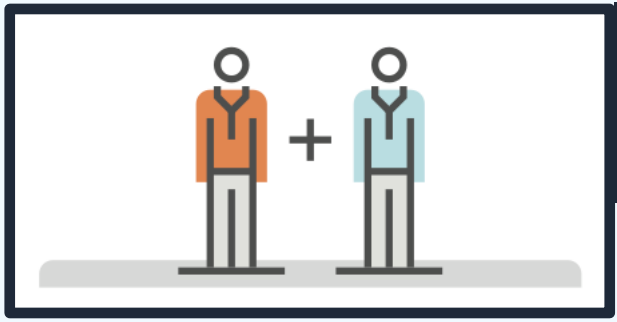
DUPLICATION OF SERVICE

- 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

Recommended for Massachusetts facilities

ACCESS

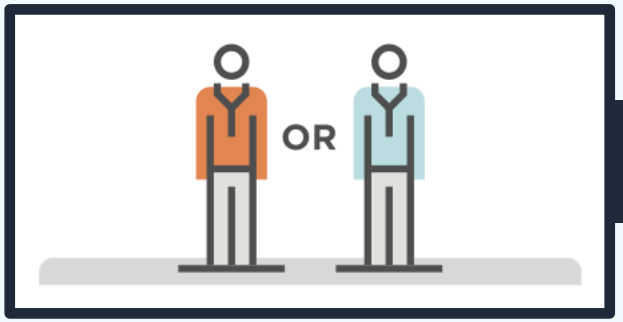
- Ultimate flexibility to meet demands of schedule
- Interchangeable CRNA and anesthesiologist roles, adjusted to facility/schedule

DUPLICATION OF SERVICE

- No duplication, "next person up" mindset

COST

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



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

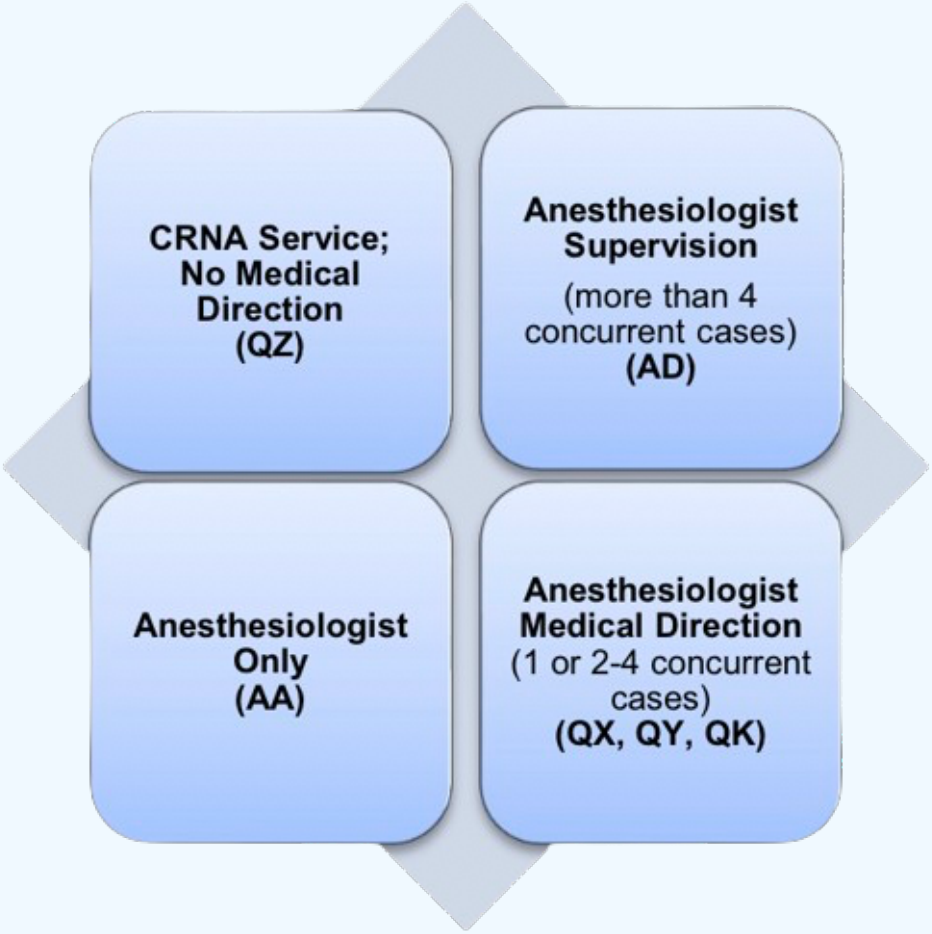
COST

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

Anesthesia Economics

Practice Model Provider Reimbursement, Medicare Part B

CMS utilizes a series of billing terms and associated billing modifiers as a means to submit claims for reimbursement



https://www.aana.com/wp-content/uploads/2023/01/anesthesia-billing-basics-considerations-checklist.pdf

Anesthesia Economics

Practice Model Provider Reimbursement, Medicare Part B

Medical Direction 1 anesthesiologist: </= 4 CRNAs**

Provider	Billing modifier	Allowable Reimbursement
Anesthesiologist	QK	50%
CRNA	QX	50%

*Highest risk of Medicare fraud due to the 7 TEFRA requirements for the anesthesiologist to complete
**Medical Direction rules are not a measure of safety

Medical Supervision**

Provider	Billing modifier	Allowable Reimbursement
Anesthesiologist	AD	Approx. 30%
CRNA	QX	50%

*Medical Supervision is not recognized by MassHealth (Medicaid)
** "Supervision" under Medicare Part B is not the same as "supervision" described in Medicare Part A Conditions of Participation

Medical Direction 1 anesthesiologist: 1 CRNA

Provider	Billing modifier	Allowable Reimbursement
Anesthesiologist	QY	50%
CRNA	QX	50%

CRNA without Medical Direction

Provider	Billing modifier	Allowable Reimbursement
Anesthesiologist	none	0%
CRNA	QX	100%

Anesthesiologist personally performed

Provider	Billing modifier	Allowable Reimbursement
Anesthesiologist	AA	100%
CRNA	none	0%

https://www.aana.com/wp-content/uploads/2023/01/anesthesia-billing-basics-considerations-checklist.pdf

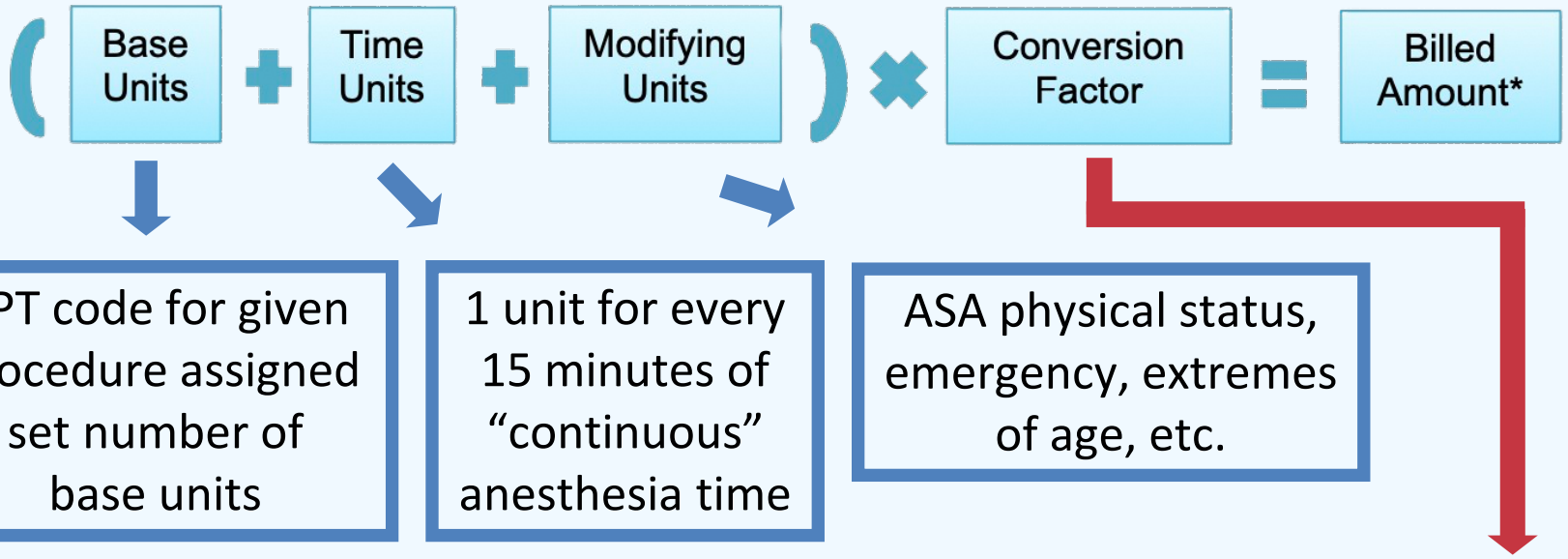
Anesthesia Economics

Practice Model Provider Reimbursement, Medicare Part B

- Providers are reimbursed by CMS under **Medicare Part B**
- CMS requires **a series of billing terms that are linked to modifiers** to submit claims for reimbursement
- **IMPORTANT:** These modifiers are often **misunderstood or misrepresented as practice models** (i.e., Medical Direction, Medical Supervision), rather than simply billing terms with associated modifiers
- *"The medical direction requirements **are not quality of care standards."** Federal Register Vol. 63, No. 211, page 58843*
- *"The term medical direction is used for **payment purposes only**."* *Massachusetts Code of Regulations at 130 CMR 433.434(C)*
- **TEFRA** (Tax Equity and Fiscal Responsibility Act of 1982) – MD Anesthesiologists must document 7 activities to be reimbursed for Medical Direction, which was intended to create a minimum set of requirements for physicians to obtain reimbursement *while not personally performing the anesthetic.*
- **QZ modifier DOES NOT prevent anesthesia providers from working within an anesthesia care team (ACT) practice model**. It simply relieves MD Anesthesiologists from having to meet TEFRA requirements, allows utilization of all anesthesia providers in the **most cost-efficient** manner without compromising safe patient care**, decreases potential for Medicare fraud, DOES NOT change provider liability, is NOT EXCLUSIVE for Opt-Out states**

Anesthesia Economics

How is an anesthesia bill generated?



Private insurance: Negotiated between group/provider and payor
CMS/Medicaid: Fixed rate, no negotiation, CRNAs reimbursed 100% of anesthesia fee schedule

https://www.aana.com/wp-content/uploads/2023/01/anesthesia-billing-basics-considerations-checklist.pdf

Anesthesia Economics

Sample Reimbursement Model

CASE

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

(7 + 9 + 0) × $20.44 = $327

https://www.aana.com/wp-content/uploads/2023/01/anesthesia-billing-basics-considerations-checklist.pdf

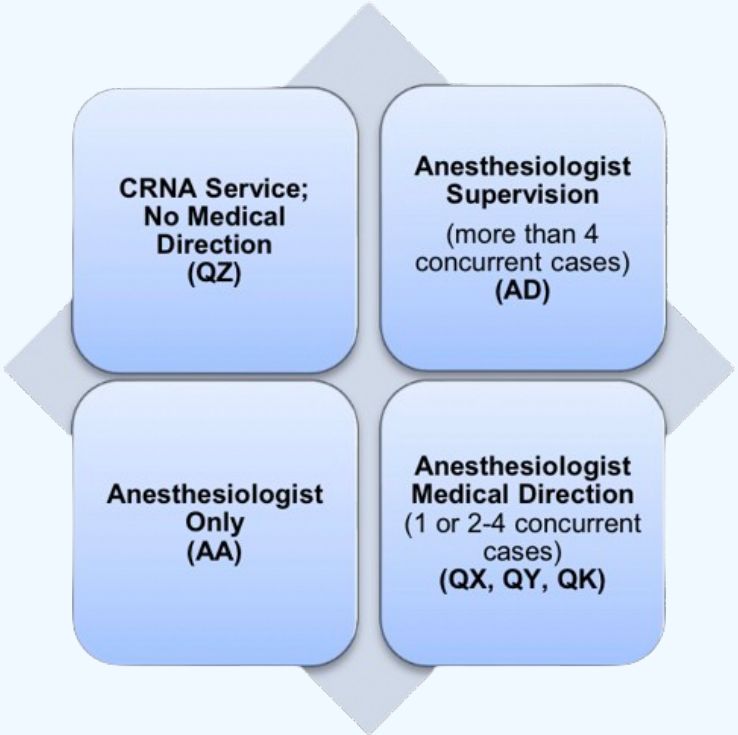
Anesthesia Economics

Sample Reimbursement Model

(7 + 9 + 0) × $20.44 = $327

CRNA: $327

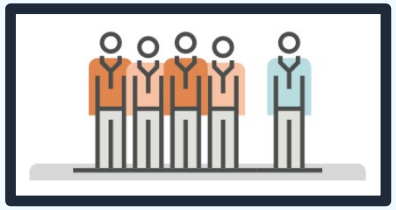
MD: $327



CRNA: $163.50
MD: $61.32

CRNA: $163.50
MD: $163.50

https://www.aana.com/wp-content/uploads/2023/01/anesthesia-billing-basics-considerations-checklist.pdf



Medical Direction

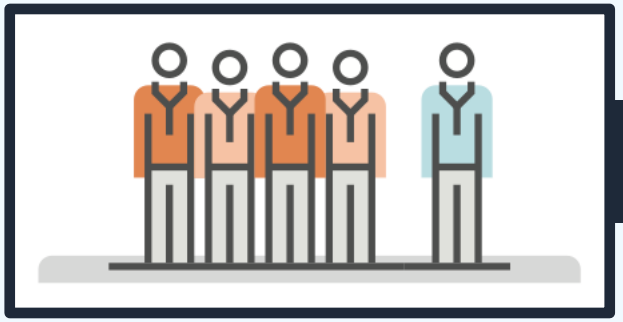
Prevalent in Massachusetts

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**

- *"The medical direction requirements **are not quality of care standards."** Federal Register Vol. 63, No. 211, page 58843*
- *"The term medical direction is used for **payment purposes only**." Massachusetts Code of Regulations at 130 CMR 433.434(C)*
- **TEFRA** (Tax Equity and Fiscal Responsibility Act of 1982) – MD Anesthesiologists must document 7 activities to be reimbursed for Medical Direction, which was intended to create a minimum set of requirements for physicians to obtain reimbursement while not personally performing the anesthetic.

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



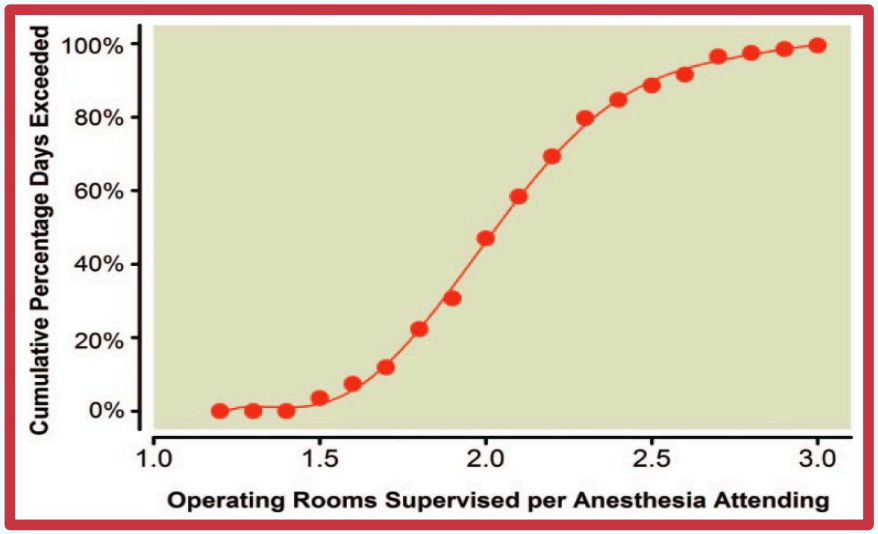
Medical Direction

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
Anesthesia Staffing Options in Massachusetts

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

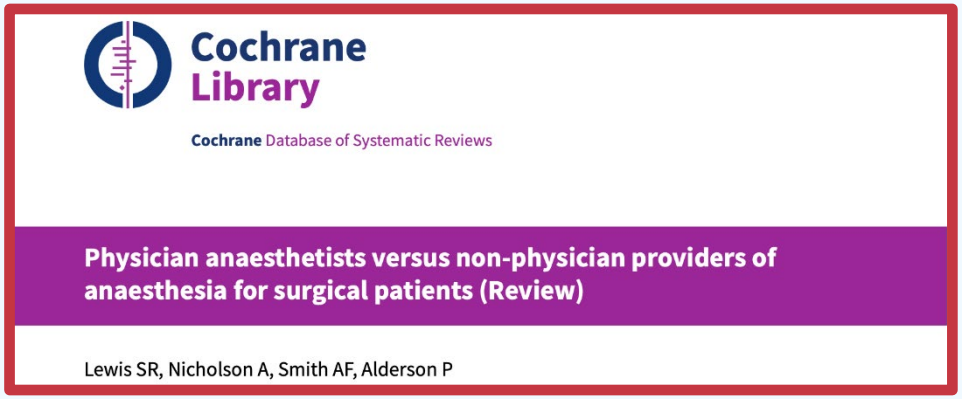
QUESTIONS

- 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

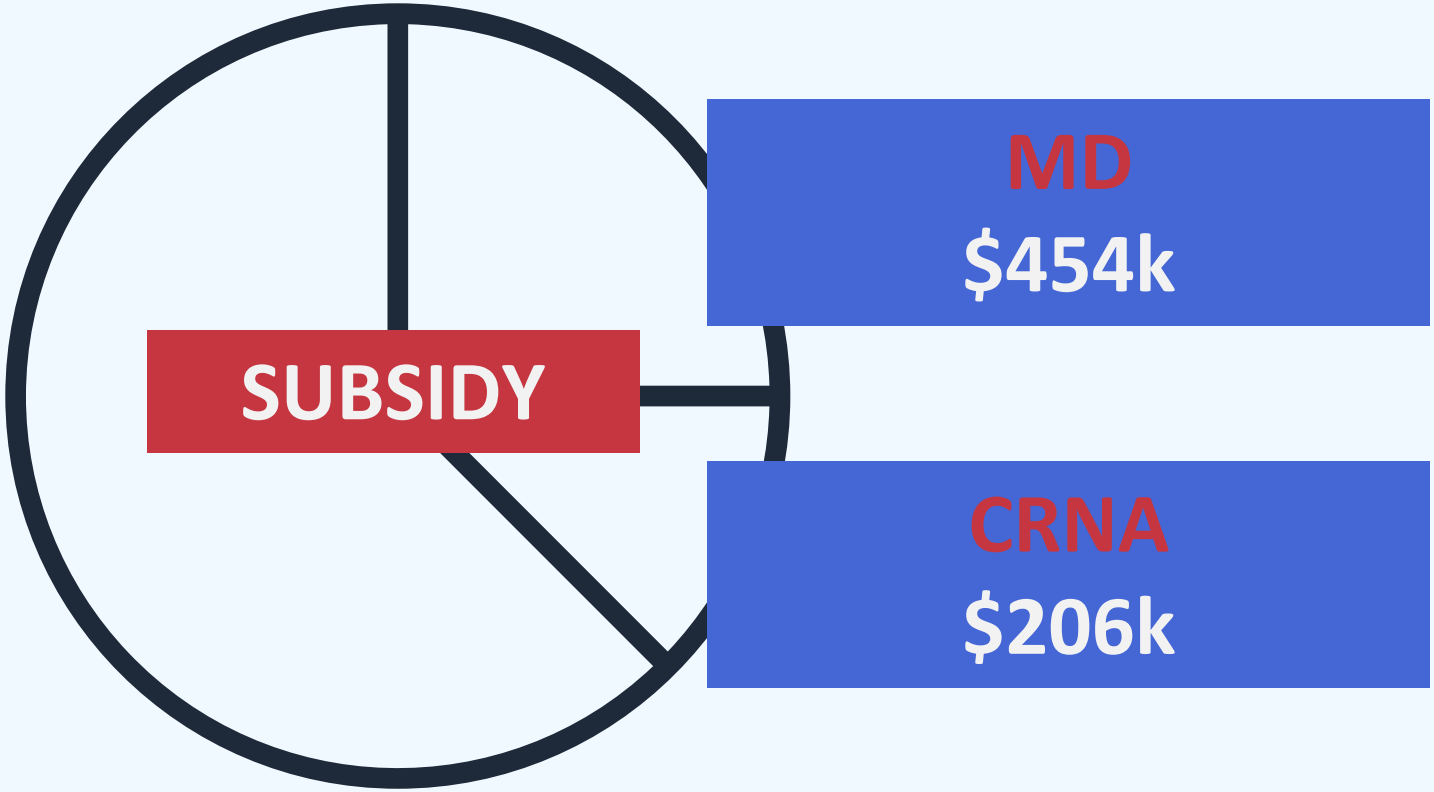
- 6 studies
- 1,563,820 participants

"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

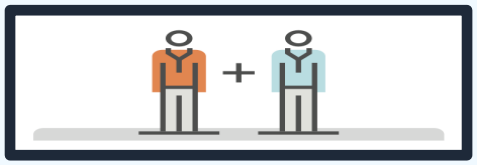
Basic Staffing Model

6 Points of Service

Medical Direction

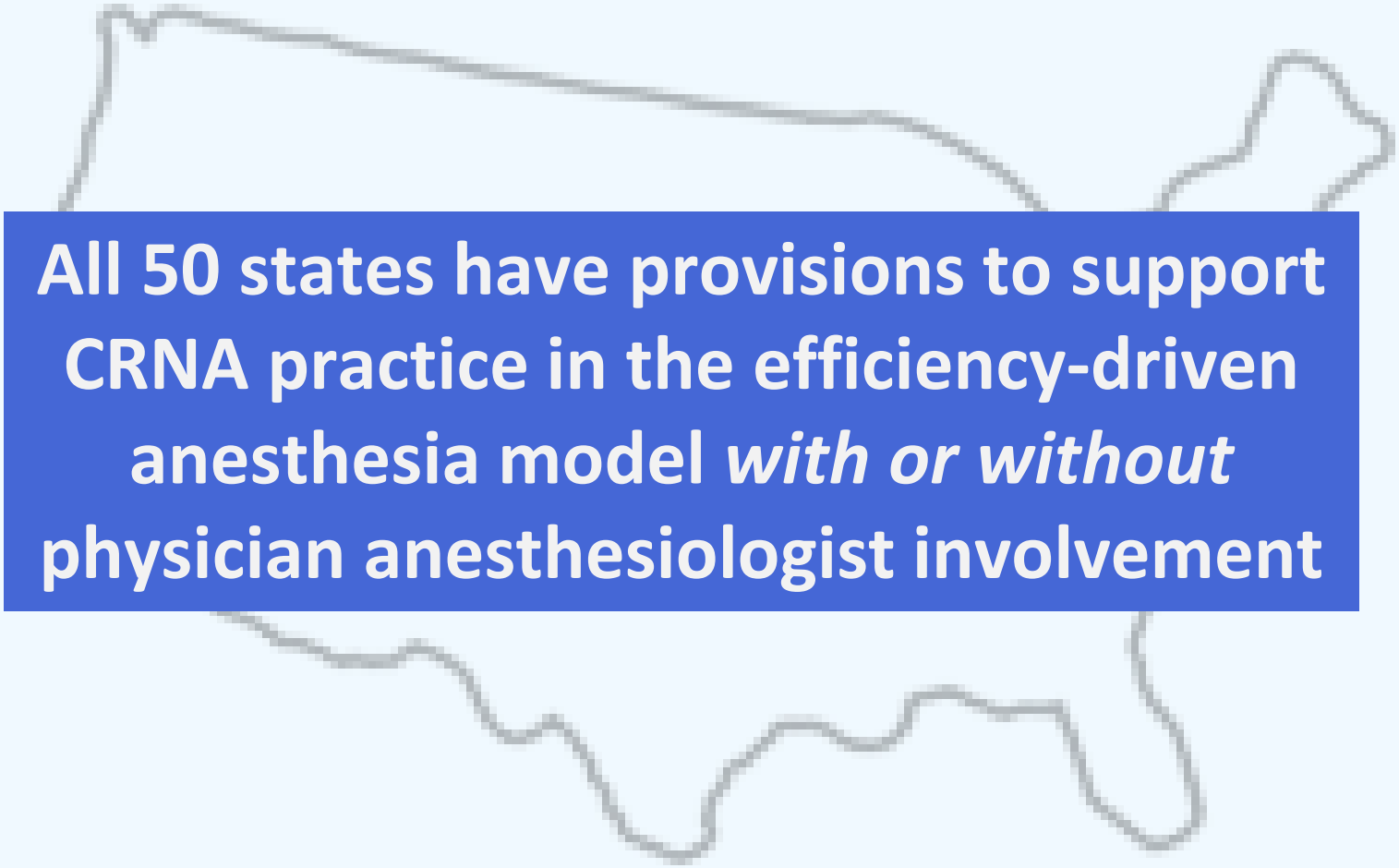
$2.14M	
MD	MD
OR#1 CRNA	OR#4 CRNA
OR#2 CRNA	OR#5 CRNA
OR#3 CRNA	OR#6 CRNA

Efficiency-Driven Anesthesia Model



$1.44-1.69M	
CRNA or MD	
OR#1 CRNA	OR#4 CRNA
OR#2 CRNA	OR#5 CRNA
OR#3 CRNA	OR#6 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

There are no state laws or regulations requiring physician supervision of CRNA practice in Massachusetts. 244 CMR.4.0

Massachusetts has opted out of the federal CMS Part A, Conditions of Participation (CoPs) CRNA supervision rule as of June 2024. CFR §482.52

(Commonwealth of Massachusetts, 2021), (Centers for Medicare and Medicaid [CMS], 2001)

Federal & State Regulations

What is Opt Out?

Medicare Part A
Hospital/ASC reimbursement

- **Defines Conditions of Participation (CoPs) rules for reimbursement for Hospitals and Ambulatory Care Centers (ASCs)**
  - States CRNAs are under the supervision of the operating practitioner or of an anesthesiologist
- Helps cover inpatient care

*****The Governor of a state can Opt Out of the Medicare Part A, Condition of Participation requiring supervision of CRNAs*****

Massachusetts Governor Maura Healey opted out effective June 4, 2024

Medicare Part B
Provider reimbursement

- **Services provided by physicians and other health care providers (Anesthesia billing for Medical Direction, Medical Supervision, Non-Medical Direction, etc.)**
- Outpatient care
- Home health care
- Durable medical equipment
  Many preventive services

https://www.medicare.gov/basics/get-started-with-medicare/medicare-basics/parts-of-medicare

Federal & State Regulations

CMS, Part A 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, Part A 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.

Federal & State Regulations

CMS, Part A Conditions of Participation (CoP)

§482.52**(c) Standard: State Exemption**

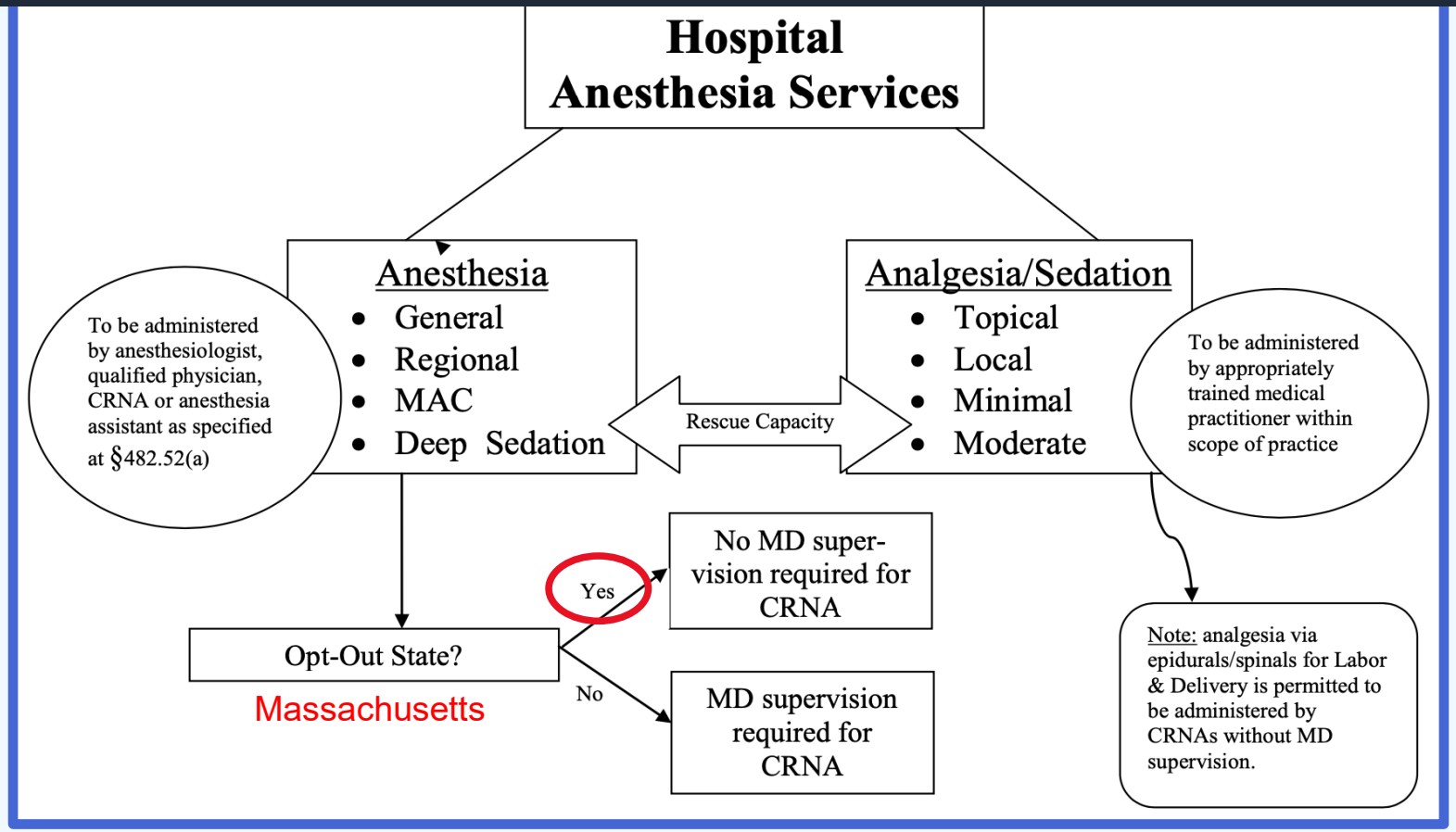
(1) A hospital may be *exempted from the requirement for physician supervision of CRNAs* as described in paragraph (a)(4) of this section, if the State in which the hospital is located submits a letter to CMS signed by the Governor, following consultation with the State's Boards of Medicine and Nursing, requesting exemption from physician supervision of CRNAs. The letter from the Governor must attest that he or she has consulted with State Boards of Medicine and Nursing about issues related to access to and the quality of anesthesia services in the State and has concluded that it is in the best interests of the State's citizens to opt-out of the current physician supervision requirement, and that the opt-out is consistent with State law.

(2) The request for exemption and recognition of State laws, and the withdrawal of the request may be submitted at any time and are effective upon submission.

Centers for Medicare and Medicaid. (November 13, 2001). *§ 482.52 Condition of participation: Anesthesia services.* Code of Federal Regulations.

Federal & State Regulations

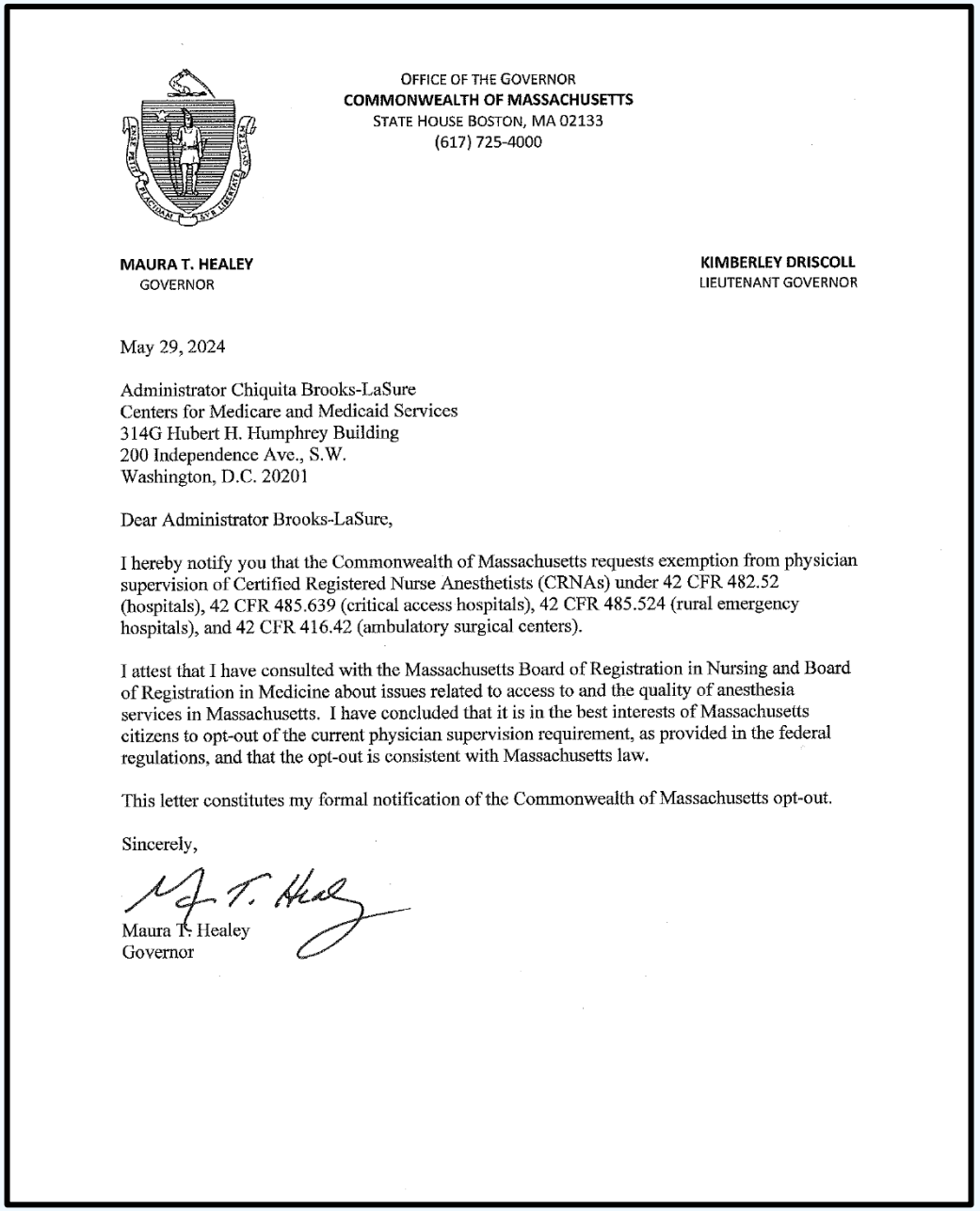
CMS, Part A Conditions of Participation (CoP)



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.

Massachusetts facilities are no longer subject to the CMS Part A Condition of Participation CRNA supervision requirement.

Governor Healey opt-ed out effective June 4, 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.

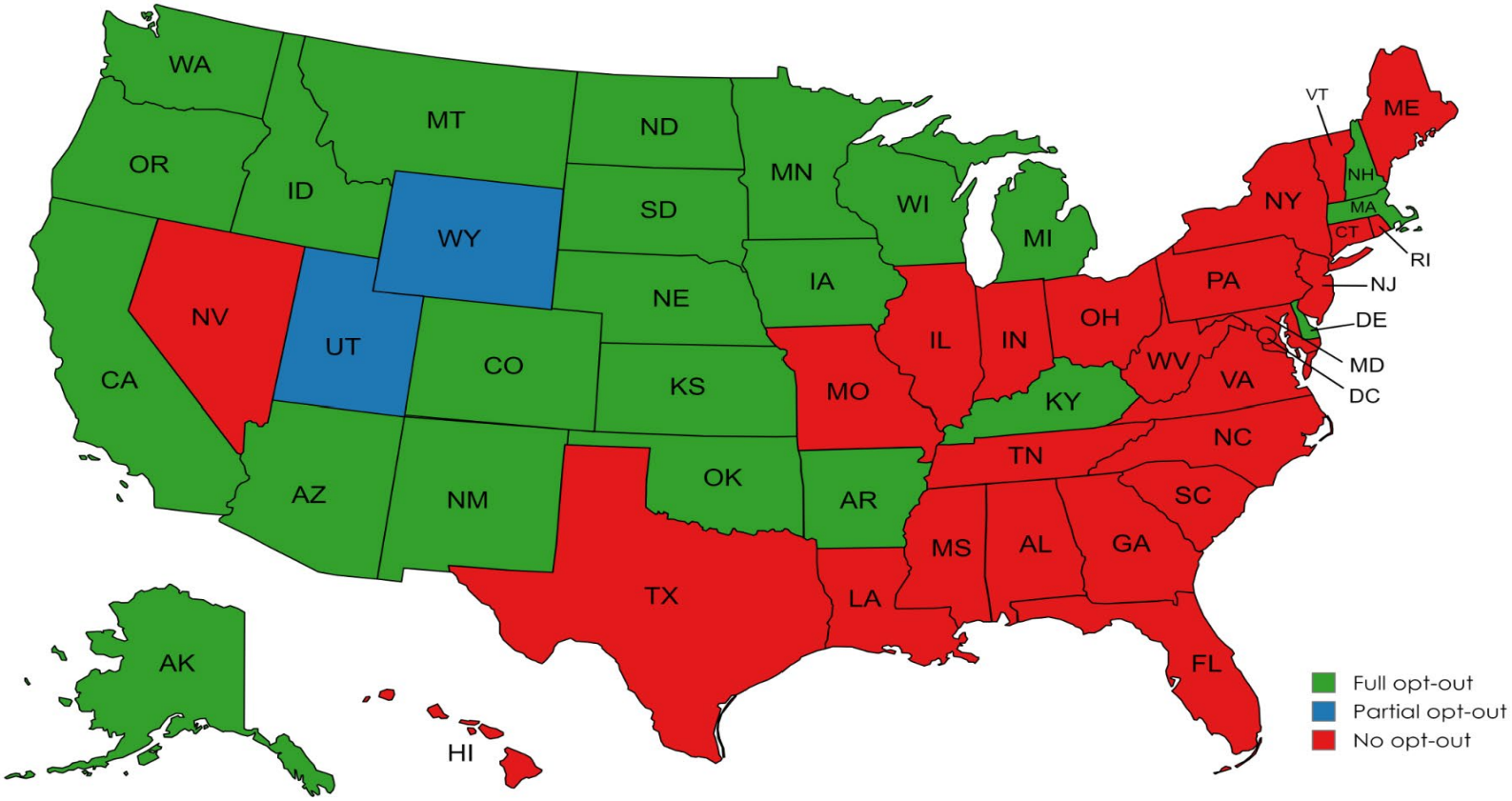
This letter constitutes my formal notification of the Commonwealth of Massachusetts opt-out.

Sincerely,

Maura T. Healey
Governor

Federal & State Regulations

CMS CoP "Opt-out" states as of November 2024



Facility Bylaws and Policies

CMS CoP Out Out Solutions

ORG CHART CHANGES

CHIEF OF STAFF (MD/DO)

Q

MEDICAL STAFF including physician anesthesiologists and CRNAs

SUPERVISION

Revoke facility bylaws and policies that exceed state and federal requirements mandating physician supervision of CRNAs, to minimize liability associated with unintentional noncompliance with such facility-based regulations.

Facility Bylaws & Policies

FACILITY BYLAWS & POLICIES SUPERCEDE ALL FEDERAL & STATE REGULATIONS

FACILITY BYLAWS & POLICIES

FEDERAL & STATE REGULATIONS

To allow the greatest flexibility in anesthesia practice models, 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?)

ANALYSIS

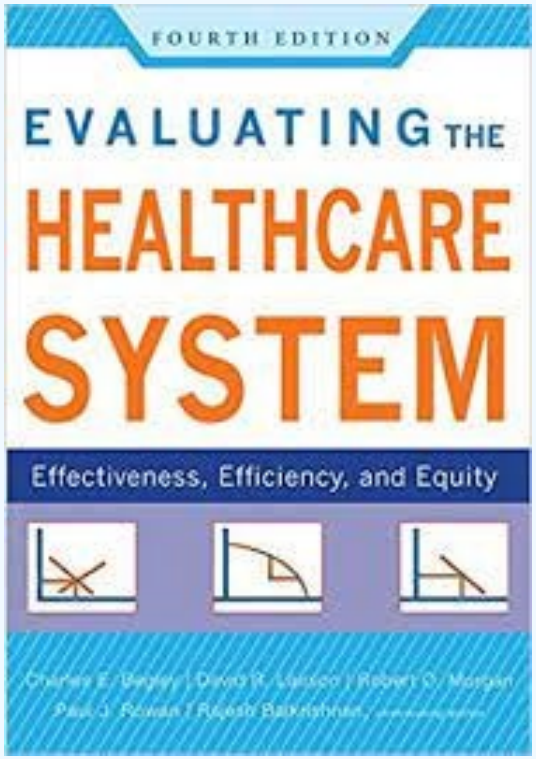
- “3-E Model” for policy analysis

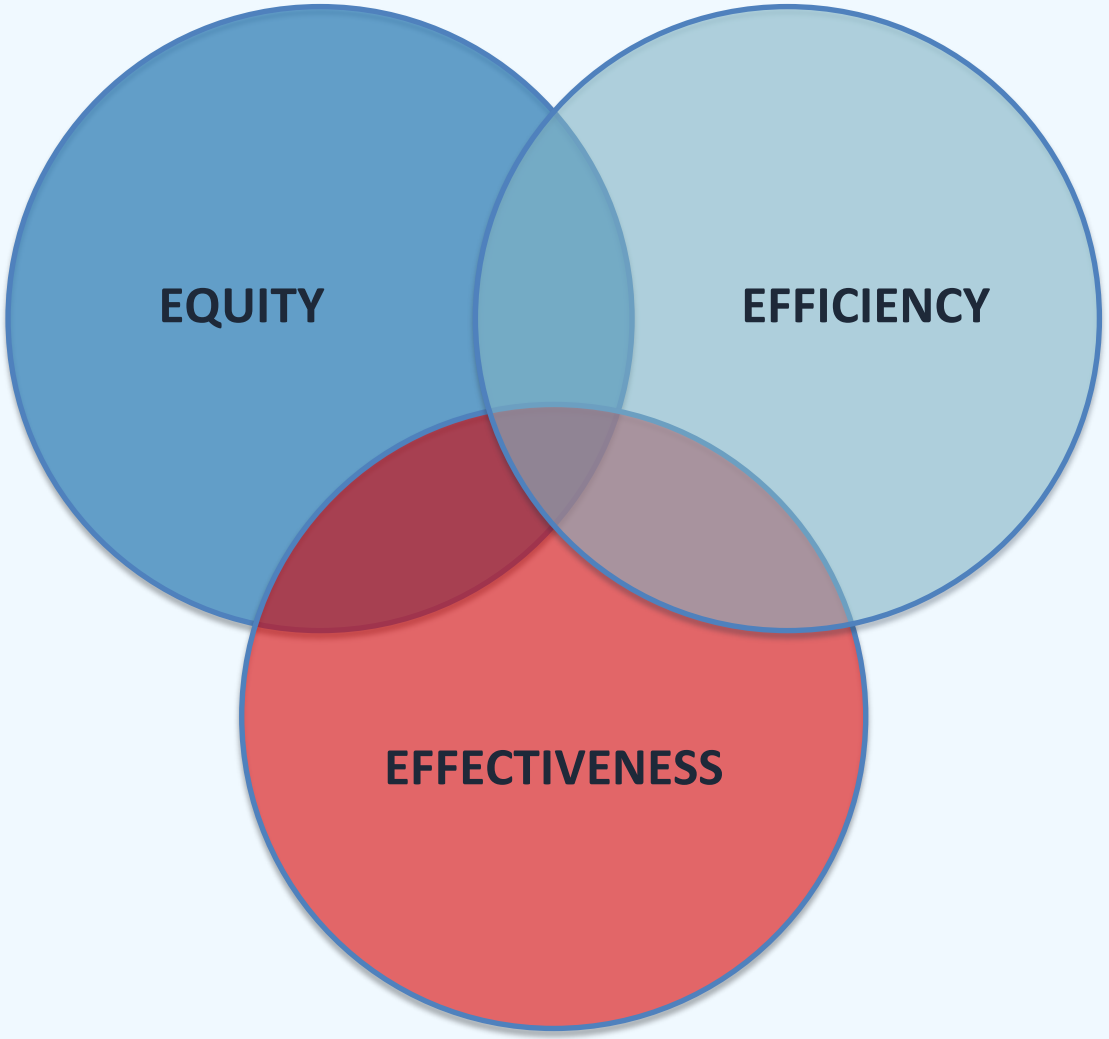
Why are Massachusetts facilities struggling to recruit and retain CRNAs?

ENVIRONMENT

- Autonomy is directly proportional to job satisfaction for CRNAs
- *The Massachusetts Association of Nurse Anesthesiology (MANA)* ***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 a safe and timely 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

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