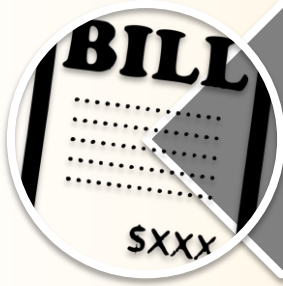


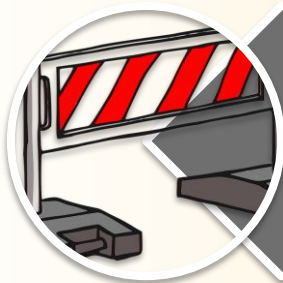
# Mind Your Business: Understanding the Anesthesia Revenue Cycle

Amanda Dickert, MS, CRNA

# Learner Objectives



Examine the life of an anesthesia claim from documentation, to coding, to collection.



Illustrate barriers to maximum revenue collection.



Analyze barriers and opportunities for CRNAs.



# Why Business Knowledge?

# Agenda

Regulation of Practice

Reimbursement for Clinical Services

Perils & Pitfalls

Future Implications

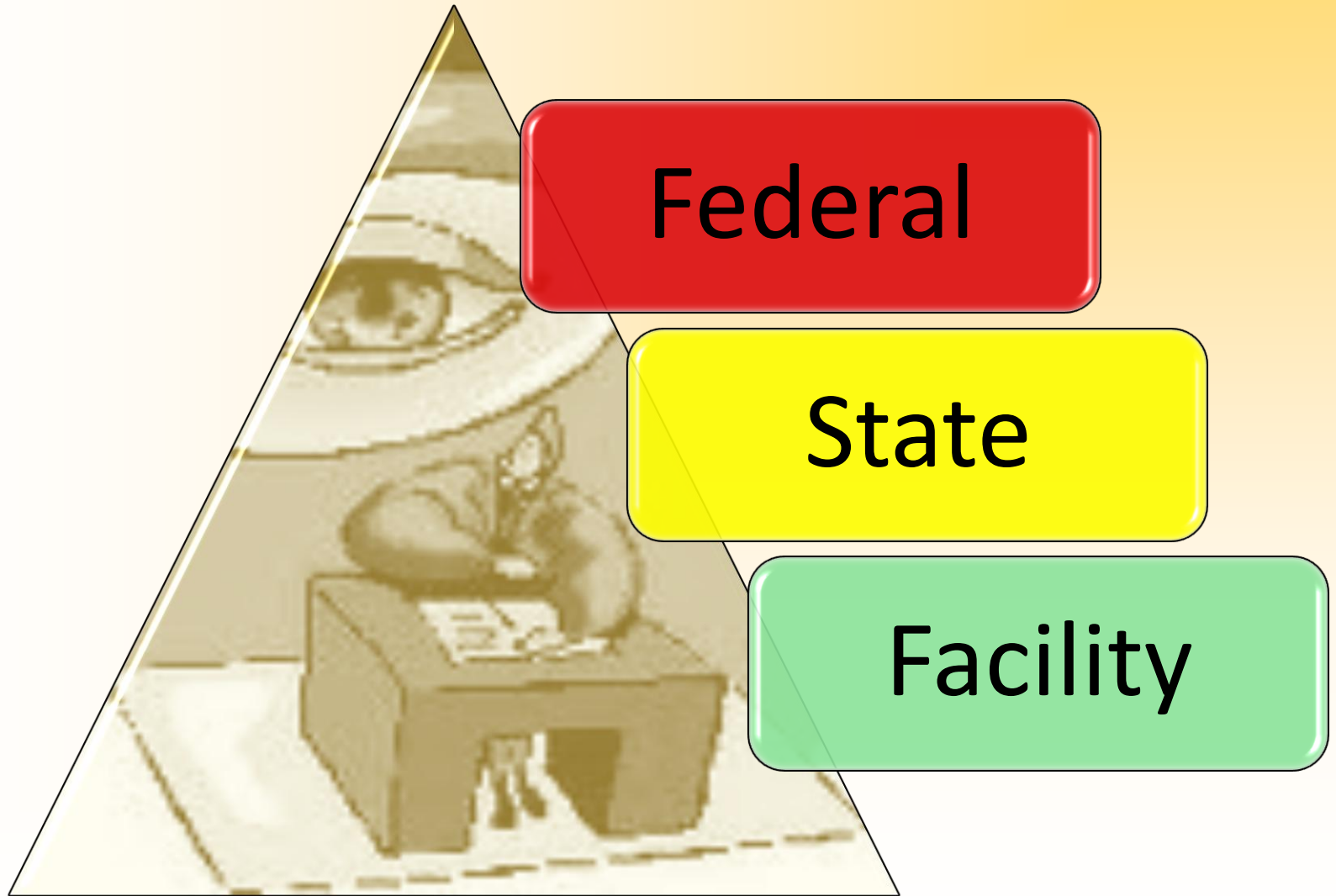






## Regulation of Practice

# Governmental Regulation of Practice



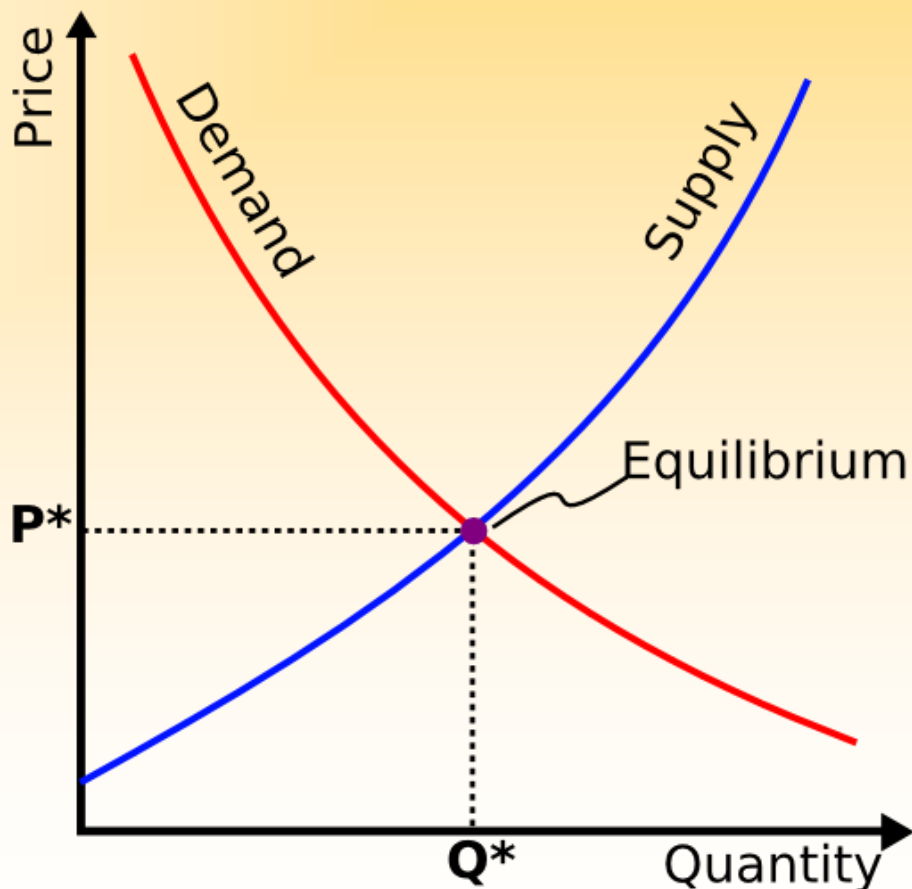
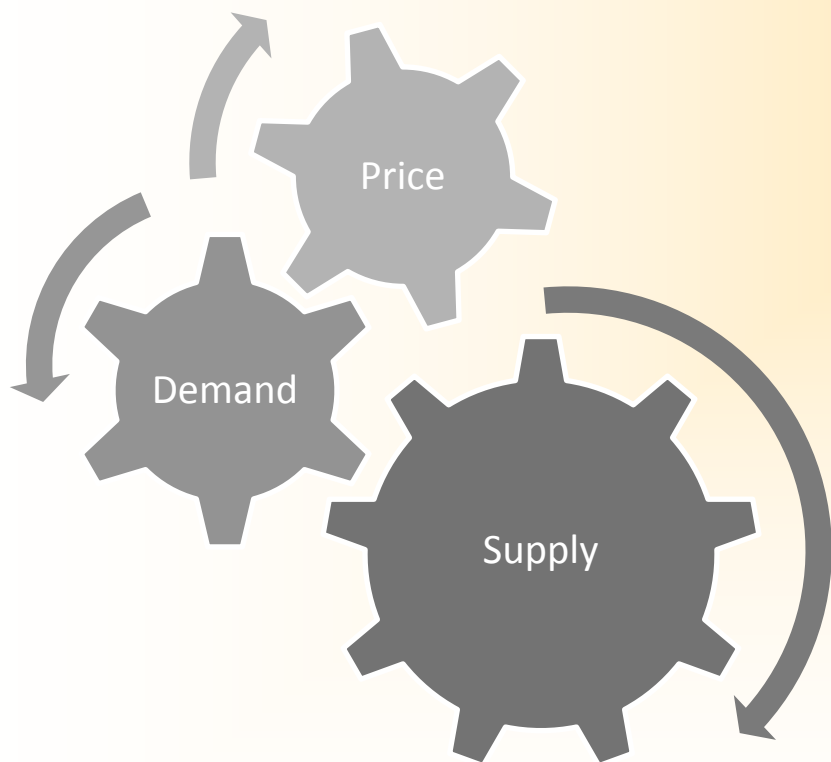


## **Reimbursement for Clinical Services**



# Economics 101

Basic Economic Theory Made Simple.....

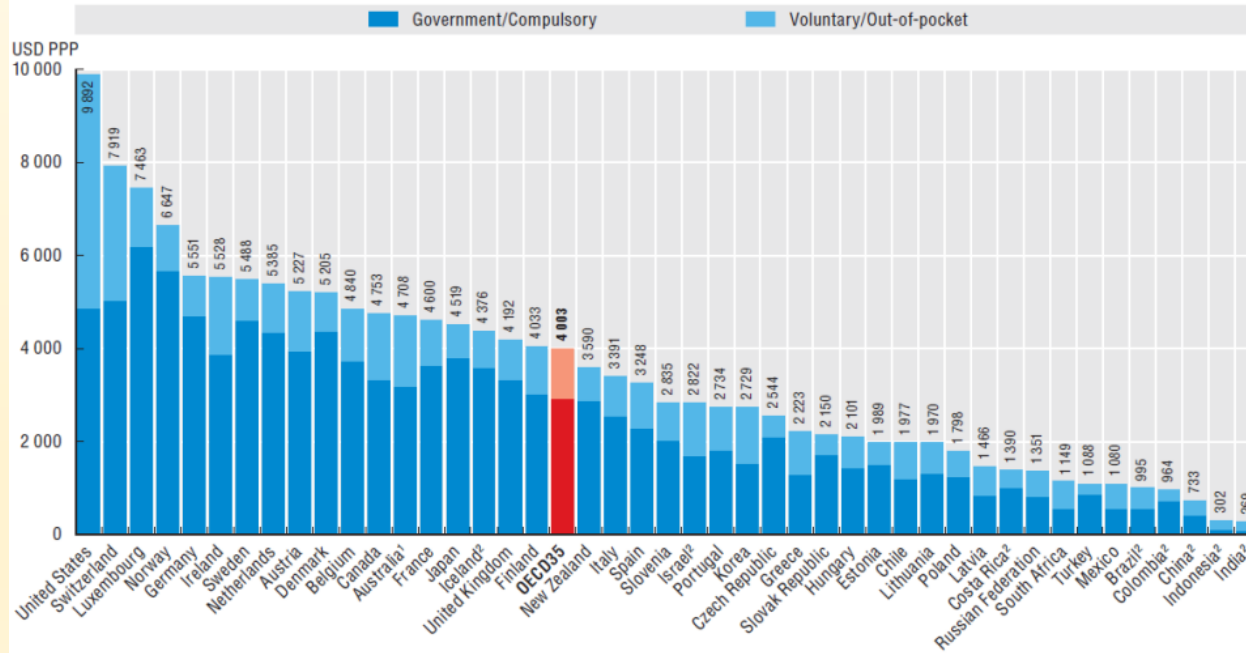


# How do we compare to other countries?

Organization for Economic Cooperation and Development

**Spending on health in the OECD was about \$4 000 per person on average (adjusted for purchasing powers).  
The United States spends almost \$10 000 per person**

**Health expenditure per capita, 2016 (or nearest year)**



Note: Expenditure excludes investments, unless otherwise stated.

1. Australian expenditure estimates exclude all expenditure for residential aged care facilities in welfare (social) services.

2. Includes investments.

**Source: Health at a Glance 2017.**



# Road to Reimbursement

Pre-1983

CRNA Services reimbursed by hospital or physician of employ

- “handling fee” subtracted
- CRNAs viewed as “costs”

1983

Medicare Part A (hospital fees)

- CRNA Supervision
- Disincentive for CRNA Services

1986

Omnibus Reconciliation act of 1986

- Allowed CRNAs to work independently
- Anesthesiologists and CRNAs paid from the same “arm” of Medicare

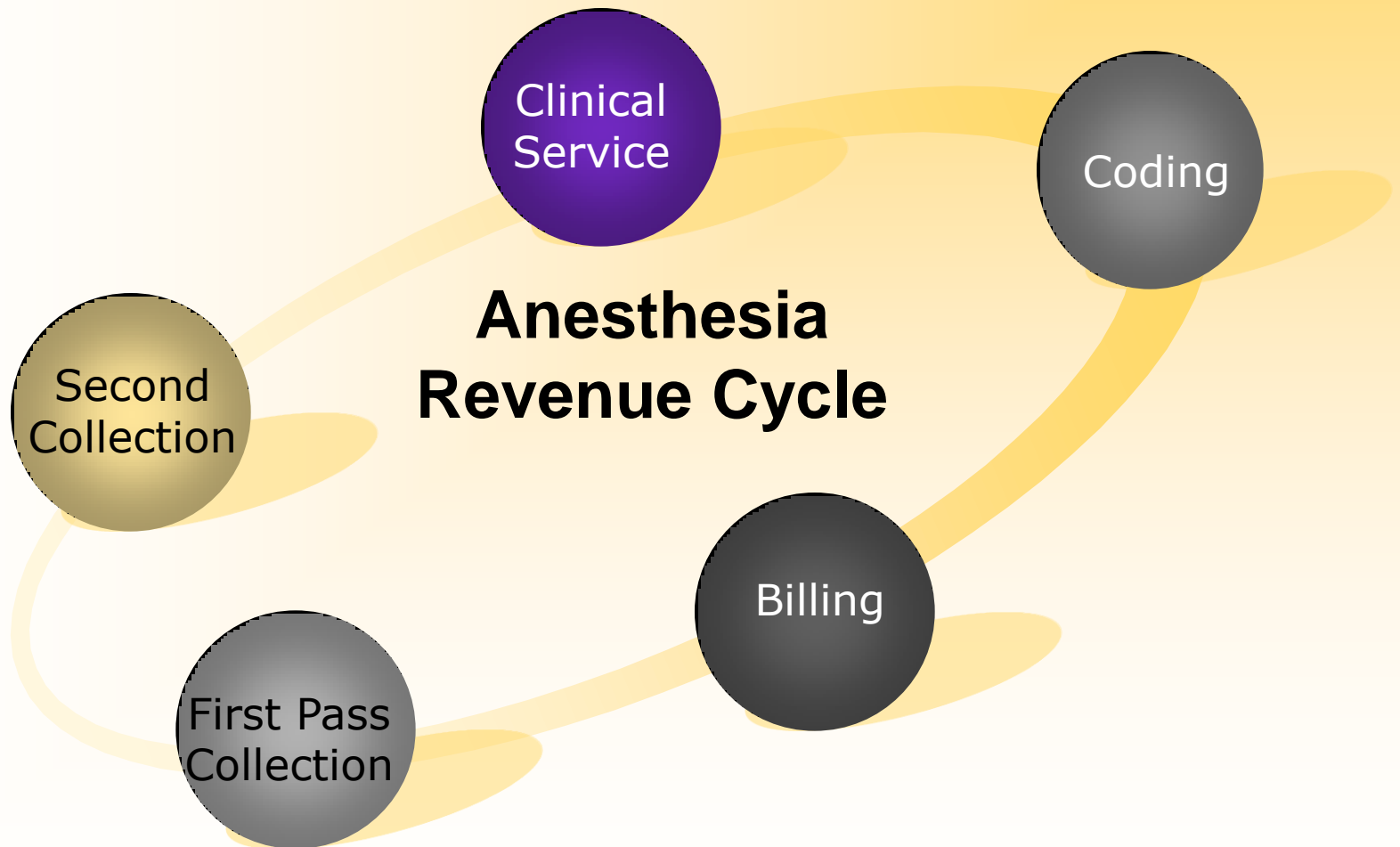


# Current Reimbursement for Clinical Services

- Medicare Billing
  - All practice settings
  - Independent of provider type
- Reassign billing rights
  - Employer
  - Billing Group
- Rural “Pass-through”
  - <800 cases per year
  - 1 CRNA FTE



# Reimbursement for Clinical Services





# Anesthesia Billing Formula

## Relative Value Unit (RVU) Anesthesia Charge Structure

- **Base Units**

- Weight or “Value” of the procedure
- Units (2-30)
- Published in Relative Value Guides

- Anesthesia Common Procedure Terminology Codes (“CPT Codes”) 00100-01999

BASE UNITS

- **Time Units**

- 15 minute Units

TIME UNITS

- **Conversion Factor**

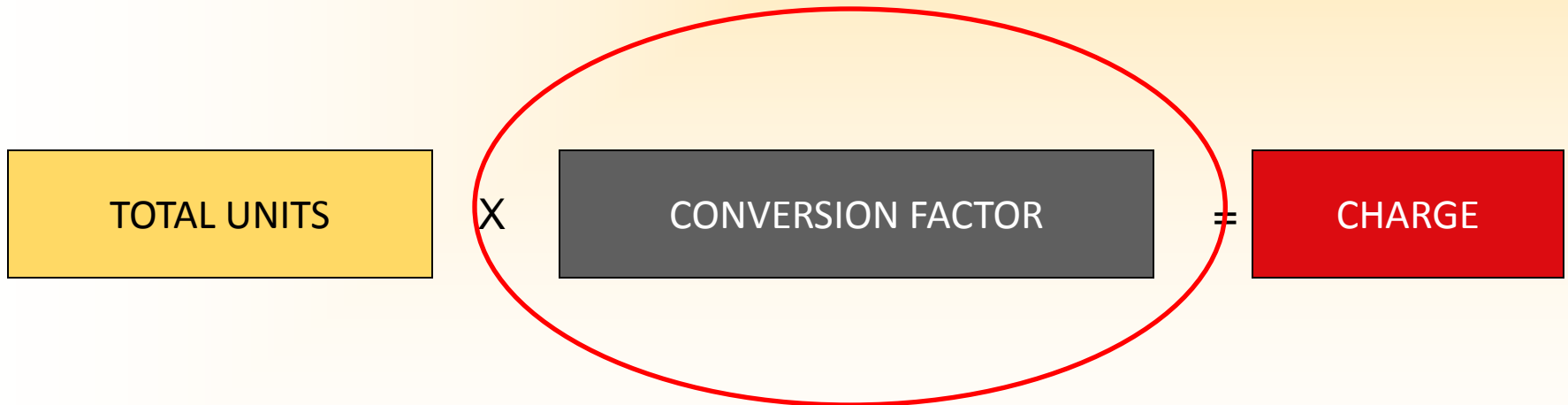
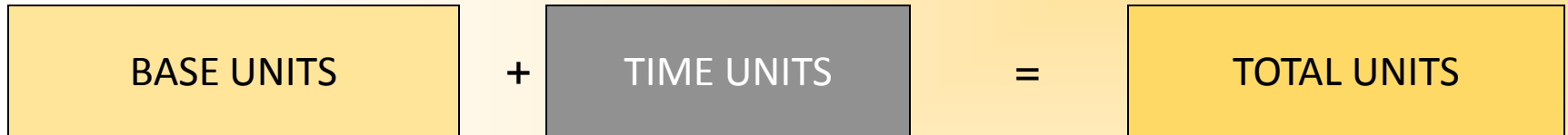
- Differs by Payer and
- Geographic Location

CONVERSION  
FACTOR



# Reimbursement for Clinical Services

## ANESTHESIOLOGY BILLING FORMULA



# Reimbursement for Clinical Services

## BASE UNITS

- Includes
  - Value of all usual anesthesia services
    - Pre- and post-operative visit
    - Administration of fluids and/or blood products incident to the anesthesia care
    - Interpretation of noninvasive monitoring (ECG, temperature, blood pressure, oximetry, capnography, and mass spectrometry)
- Excludes
  - Time
  - Modifying factors

# Reimbursement for Clinical Services

## BASE UNITS

Corneal Transplant	6	Liver transplant	30
Intracranial Procedures	11	Obesity surgery	8
All procedures on thyroid, larynx, trachea	6	Hysterectomy	8
Reconstructive procedures on breast (reduction, augmentation, flap)	5	Prostatectomy	7
Thoracotomy	7	TURP	5
Lumbar region	8	Continuous epidural and analgesic for labor and vaginal delivery	5
Cervical spine	10	Total hip replacement	10
Pancreatectomy, partial or total	8	Total knee replacement	7
Hernia repair, upper abdomen	4	Knee arthroscopy	3
Gastrointestinal endoscopic procedures	5	Caesarean delivery	7



# Reimbursement for Clinical Services

## BASE UNITS

Excision of retropharyngeal tumor	5	Hysterectomy	8
Radical surgery	7	Radical Hysterectomy	8
Thoracotomy	13	Pelvic exenteration	8
Decortication	15	Renal transplant, recipient	10
Pleurectomy	15	Renal transplant, donor	7
Heart, pericardium, great vessels of chest, <i>without pump oxygenator</i>	15	Organ harvest	7
With pump oxygenator	20	Closed reduction, femur	4
CABG with pump oxygenator	25	Open reduction, femur	5
CABG without pump oxygenator	25		
Heart or heart/lung transplant	20		





# Reimbursement for Clinical Services

## TIME UNITS

- 4 unit hour
  - 4 units per hour
  - 1 unit = 15 minutes
- **START** = anesthesiologist begins to prepare the patient for anesthesia care in the operating room or equivalent area
- **END** = anesthesiologist is no longer in personal attendance; patient may be safely placed under postoperative supervision.



# Reimbursement for Clinical Services

## MODIFIERS

Physical Status	Additional Base Units
PS 1, 2, or 6	0
PS 3 – severe systemic disease	1
PS 4 – severe systemic disease; constant threat to life	2
PS 5 – moribund patient	3
Qualifying Circumstances	
Extreme age - <1; >70	1
Total body hypothermia	5
Controlled hypotension	5
Emergency	2



# Reimbursement for Clinical Services

## CONVERSION FACTOR

### CMS 2018

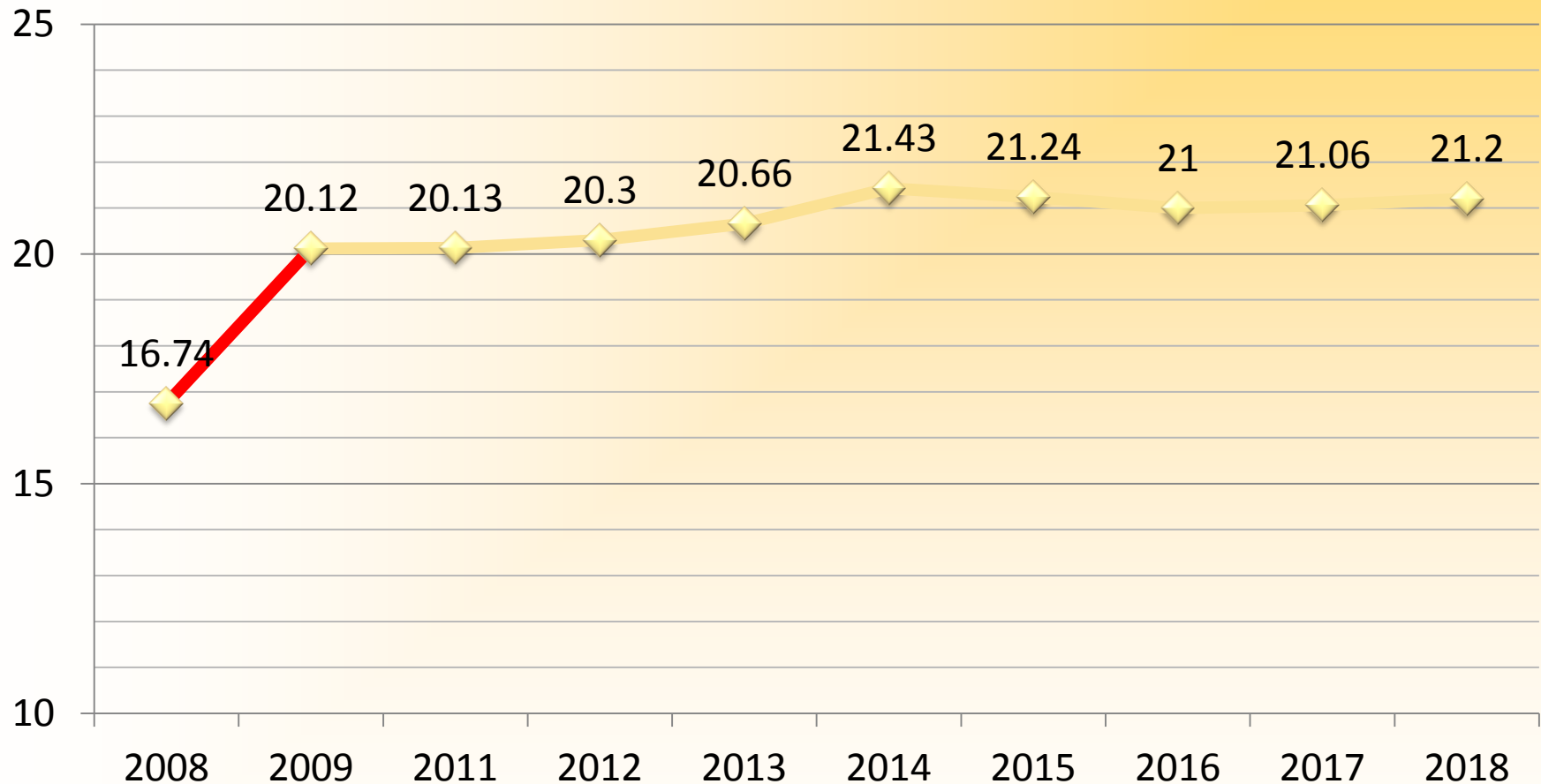
- Differs by payor group and locality
  - Commercial insurers by negotiation / contractual agreements
  - Medicare: Determined yearly by CMS

– Tennessee	<b>\$21.20</b>
– New York City	\$25.17
– Philadelphia	\$23.34
– Miami	\$24.41
– Alaska	\$30.89
– Los Angeles	\$23.19
– San Francisco	\$23.83
– Colorado	\$22.31
– <b>AVERAGE</b>	<b>\$22.19</b>



# Medicare Conversion Factors

TREND: Tennessee



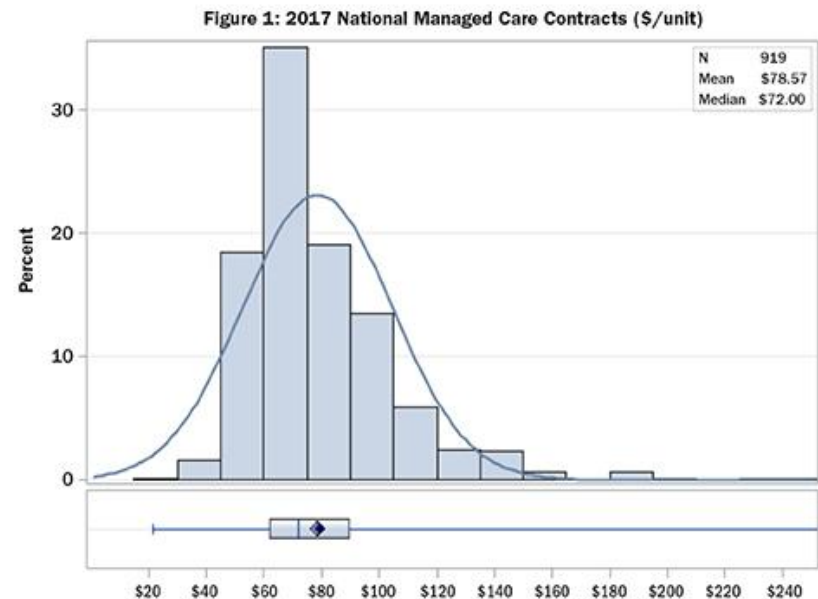
# Commercial Insurers

- Conversion Factor is determined by contractual arrangement or negotiation
- On average ~**3.2x Medicare**

National Average of  
Commercial Insurance  
Conversion Factors 2017\*

	Lowest	Highest
2017	\$21.76	\$280.00

- **Mean \$78.57**
- **Median \$72.00**
- **Southern Mean \$80.49**
- **Southern Median \$72.70**



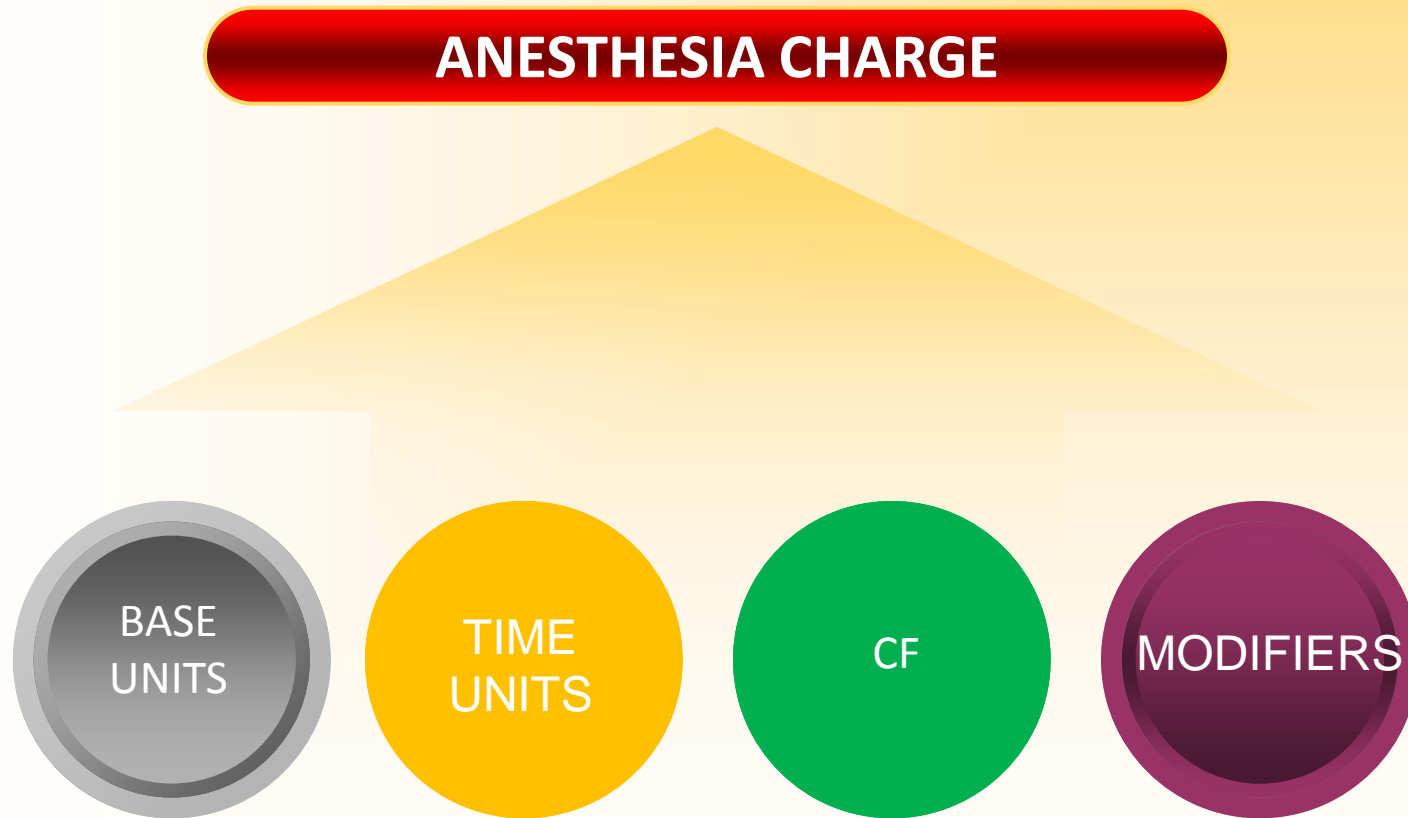


## Question

*In general, do you think that CRNAs' revenue exceeds their cost?*

1. Yes
2. No

# Reimbursement for Clinical Services



# Reimbursement for Clinical Services

## Economic Value Calculator

	Medicare	Medicaid	Work Comp	Private
Conversion Factor	\$15.66	\$15.00	\$22.00	\$70.00
Average units/case	12	12	12	12
Average cases/year	900	900	900	900
Fraction of cases in category	50%	15%	5%	30%
Economic Value	\$84,564	\$24,300	\$11,880	\$226,800
\$347,544				



# Reimbursement for Clinical Services

## Economic Value Calculator

	Medicare	Medicaid	Work Comp	Private
Conversion Factor	\$19.69	\$18.00	\$22.00	\$70.00
Average units/case	12	12	12	12
Average cases/year	900	900	900	900
Fraction of cases in category	50%	15%	5%	30%
Economic Value	\$106,326	\$29,160	\$11,880	\$226,800
\$374,166				



# Reimbursement for Clinical Services

## Economic Value Calculator

	Medicare	Medicaid	Work Comp	Private
Conversion Factor	\$19.69	\$18.00	\$22.00	\$70.00
Average units/case	12	12	12	12
Average cases/year	900	900	900	900
Fraction of cases in category	25%	5%	5%	65%
Economic Value	\$53,163	\$9,720	\$11,880	\$491,400
<b>\$566,163</b>				



# Reimbursement for Clinical Services

## Example 1: 35 minute cataract procedure

Classification	Anesthesia for lens surgery
CPT Code 00142	4
Time Units	3
Modifiers	2
Total Units	9
Conversion Factor	\$21.20
Anesthesia Charge	<b>\$190.80</b>



# Reimbursement for Clinical Services

## Example 2: 2 hour cholecystectomy

Classification	Anesthesia for procedure on upper anterior abdominal wall
CPT Code 00700	7
Time Units	8
Modifiers	0
Total Units	15
Conversion Factor	\$21.20
Anesthesia Charge	<b>\$318.00</b>



# Reimbursement for Clinical Services

## Example 3: 4 hour CABG

<b>Classification</b>	Anesthesia for procedure on heart, pericardium, and great vessels of chest, with pump oxygenator
<b>CPT Code 00562</b>	25
<b>Time Units</b>	16
<b>Modifiers</b>	5
<b>Total Units</b>	46
<b>Conversion Factor</b>	\$21.20
<b>Anesthesia Charge</b>	<b>\$975.20</b>



# Reimbursement for Clinical Services

REVENUE STREAM – COMMUNITY HOSPITAL – CRNA “X” – TN CF

<b>MONDAY</b>	<b>BU</b>	<b>TU</b>	<b>MOD</b>	<b>Total Units</b>	<b>Charge</b>
Lap Chole	7	7.3	0	14.3	\$303.16
Lap Chole	7	7.3	2	16.3	\$345.56
Breast biopsy	3	4.6	0	7.6	\$161.12
Breast biopsy	3	4.6	0	7.6	\$161.12
Colonoscopy	4	2.3	1	7.3	\$154.76
Colonoscopy	4	2.3	1	7.3	\$154.76



**7.1 hrs.**

**\$1280.48**

# Reimbursement for Clinical Services

REVENUE STREAM – COMMUNITY HOSPITAL – TN CF

<b>TUESDAY</b>	<b>BU</b>	<b>TU</b>	<b>MOD</b>	<b>Total Units</b>	<b>Charge</b>
Knee arthroscopy	3	3.3	0	6.3	\$133.56
Knee arthroscopy	3	3.3	0	6.3	\$133.56
Total Hip	10	10	2	22	\$466.40
Total Hip	10	10	0	20	\$424.00



VANDERBILT

**6.7 hrs.**

**\$1157.52**

# Reimbursement for Clinical Services

REVENUE STREAM – COMMUNITY HOSPITAL – TN CF

WEDNESDAY	BU	TU	MOD	Total Units	Charge
Tonsillectomy	5	3	0	8	\$169.60
BMT	4	1.3	0	5.3	\$112.36
BMT	4	1.3	0	5.3	\$112.36
BMT	4	1.3	0	5.3	\$112.36
BMT	4	1.3	0	5.3	\$112.36
BMT	4	1.3	0	5.3	\$112.36
Tonsillectomy	5	3	0	8	\$169.60
Tonsillectomy	5	3	0	8	\$169.60



VANDERBILT

<4 hrs.

**\$1070.60**

# Reimbursement for Clinical Services

## REVENUE STREAM – COMMUNITY HOSPITAL – TN CF

THURSDAY	BU	TU	MOD	Total Units	Charge
Hysterectomy	6	10	0	16	\$339.20
Hysterectomy	6	10	0	16	\$339.20
Cystourethroscopy	3	2	0	5	\$106.0
Cystourethroscopy	3	2	2	7	\$148.40
Tympanoplasty	5	4	0	9	\$190.80

# Reimbursement for Clinical Services

REVENUE STREAM – COMMUNITY HOSPITAL – TN CF

FRIDAY	BU	TU	MOD	Total Units	Charge
Knee arthroscopy	3	3.3	0	6.3	\$133.56
Total Hip	10	10	0	20	\$424.00
Total Hip	10	10	0	20	\$424.00
Total Hip	10	10	0	20	\$424.00



VANDERBILT

8.3 hrs.

\$1405.56



# Reimbursement for Clinical Services

REVENUE STREAM – COMMUNITY HOSPITAL  
WEEKLY BILLABLE SERVICES – CRNA “X”

**MONDAY** **1,280.48**

**TUESDAY** **1,157.52**

**WEDNESDAY** **1,070.60**

**THURSDAY** **1,123.60**

**FRIDAY** **1,405.56**

**\$6,037.76 weekly**  
**\$313,963.52 yearly**



*Based on Medicare CF only*



# Reimbursement for Clinical Services

## REVENUE STREAM – TERTIARY REFERRAL FACILITY

MONDAY	BU	TU	MOD	Total Units	Charge
Liver Transplantation	30	40	2	72	\$1526.40



# Reimbursement for Clinical Services

## REVENUE STREAM – TERTIARY REFERRAL FACILITY

TUESDAY	TUESDAY			Total Units	Charge
	BU	TU	MOD		
CABG	25	20	4	49	\$1038.80
CABG	25	16	4	45	\$954.00



# Reimbursement for Clinical Services

## REVENUE STREAM – TERTIARY REFERRAL FACILITY

WEDNESDAY	BU	TU	MOD	Total Units	Charge
Craniotomy	11	16	0	27	\$572.40
Craniotomy	11	16	0	27	\$572.40



# Reimbursement for Clinical Services

## REVENUE STREAM – TERTIARY REFERRAL FACILITY

THURSDAY	BU	TU	MOD	Total Unit s	Charge
Thoracoscopy	6	10	0	16	\$339.20
Esophagectomy	15	14	0	29	\$614.80
Mediastinoscopy	8	4	0	12	\$254.40
Thoracotomy	13	12	0	25	\$530.00



# Reimbursement for Clinical Services

REVENUE STREAM – TERTIARY REFERRAL FACILITY  
WEEKLY BILLABLE SERVICES – CRNA “X”

**MONDAY** **\$1526.40**

**TUESDAY** **\$1992.80**

**WEDNESDAY** **\$1144.80**

**THURSDAY** **\$1,738.40**

**FRIDAY** **DAY OFF**

**\$6,402.40 weekly**  
**\$332,924.80 yearly**







# Factors Affecting Reimbursement for Clinical Services

---

- **Anesthesia practice model**
  - Medical direction
  - Medical supervision
  - Non-medically directed
- **Payor Mix**
  - Medicare CF
  - Private insurance CF
- **Collection Ratio**



# Reimbursement for Clinical Services

## Medical Direction

- Anesthesiologist directs individuals in up to 4 concurrent cases
- TEFRA Rules (Tax Equity and Fiscal Responsibility Act 1982)
  1. Performs a pre-anesthetic examination and assessment
  2. Prescribes the anesthetic plan
  3. Personally participates in the most demanding procedures in the anesthesia plan, *if applicable*, including induction and emergence
  4. Ensures that any procedures in the anesthesia that he or she does not perform are performed by a qualified anesthetist
  5. Monitors the course of anesthesia administration at frequent intervals
  6. Remains physically present and available for immediate diagnosis and treatment of emergencies
  7. Provides indicated post-anesthesia care
- 50% to MD / 50% to CRNA

# Reimbursement for Clinical Services

## Medical Direction

### – Drilling down

- “Performs a pre-anesthetic evaluation and assessment”
  - OK to be delegated and signed off
- “Prescribes the anesthetic plan”
  - General, regional, MAC, etc.
- Personally participates in the most demanding procedures, including, *if applicable*, induction and emergence
  - Refers to general anesthesia cases (Federal Register, 1998)

# Reimbursement for Clinical Services

## Medical Supervision

- Anesthesiologist is involved in furnishing more than 4 procedures concurrently
- Anesthesiologist is performing other services while directing the concurrent procedures
- MD Billing
  - Maximum billing of **3** base units for MD
  - **1** additional base unit if MD present for induction
- CRNA Billing
  - Full 50%
- <50% to MD / 50% to CRNA

# Reimbursement for Clinical Services

## Non-medically directed CRNA

- Anesthesiologist not involved in case or unable to meet the TEFRA requirements
- 100% to CRNA

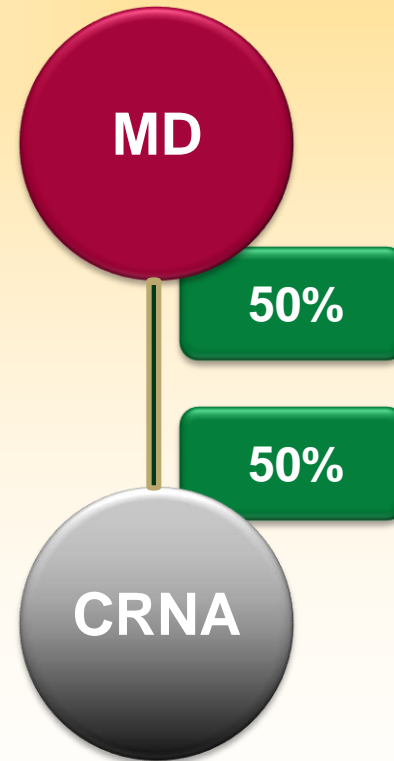


# Payment Diagrams

**CRNA only**  
(QZ)

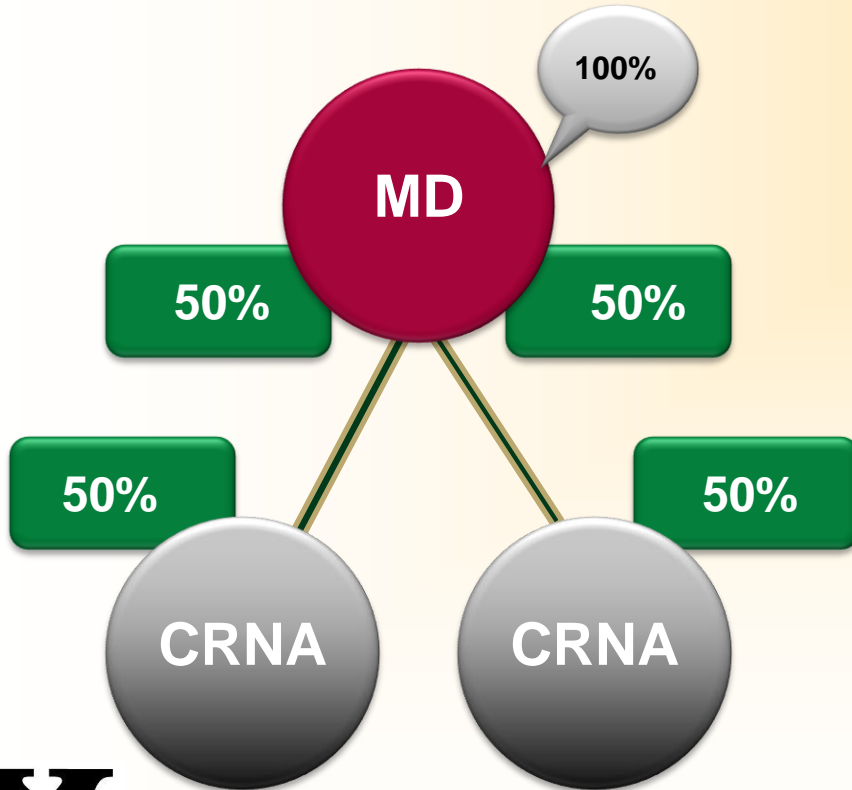


**MD / CRNA (QX/QY)**  
1:1 Medical Direction

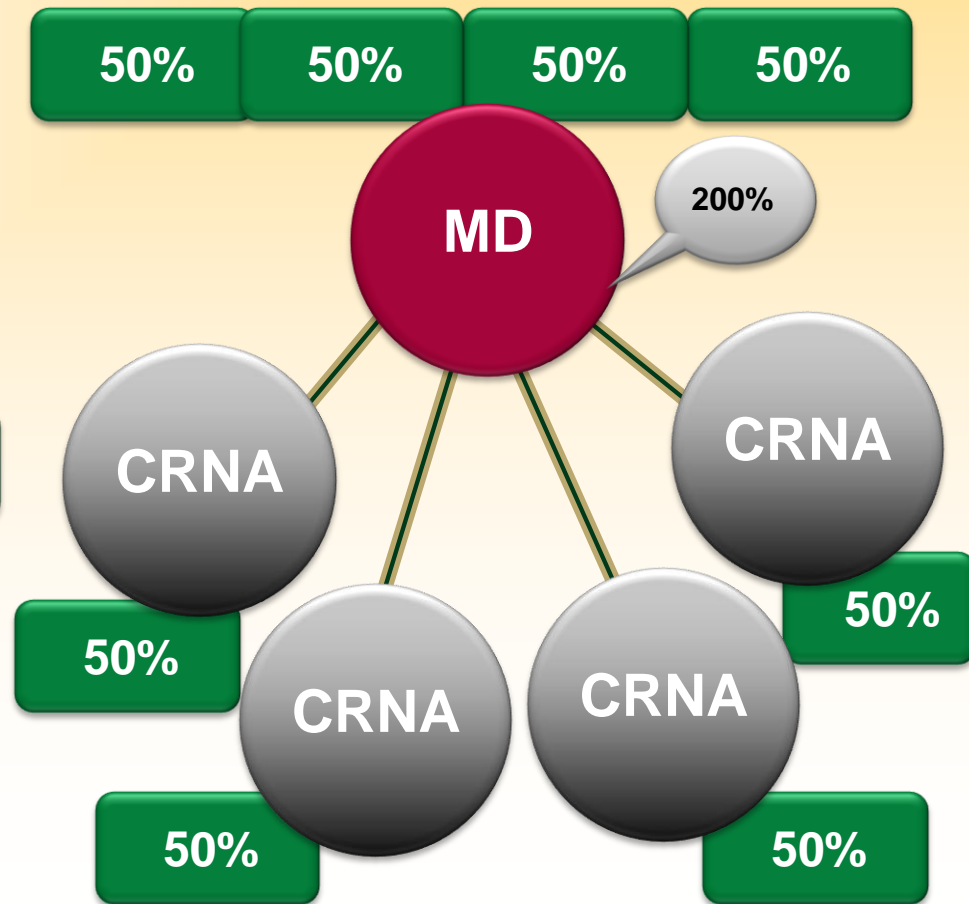


# Medical Direction Models

MD / CRNA (QK)  
1:2 Medical Direction

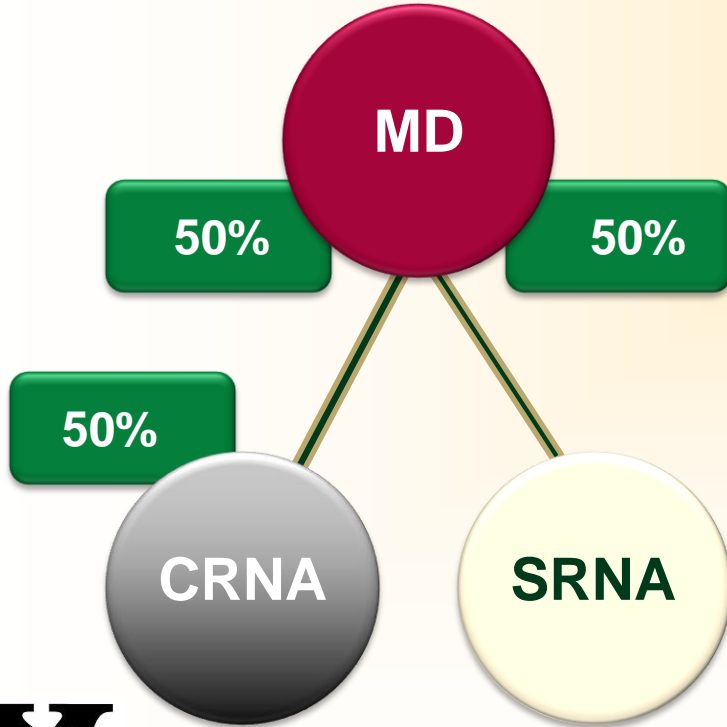


MD / CRNA (QK)  
1:4 Medical Direction

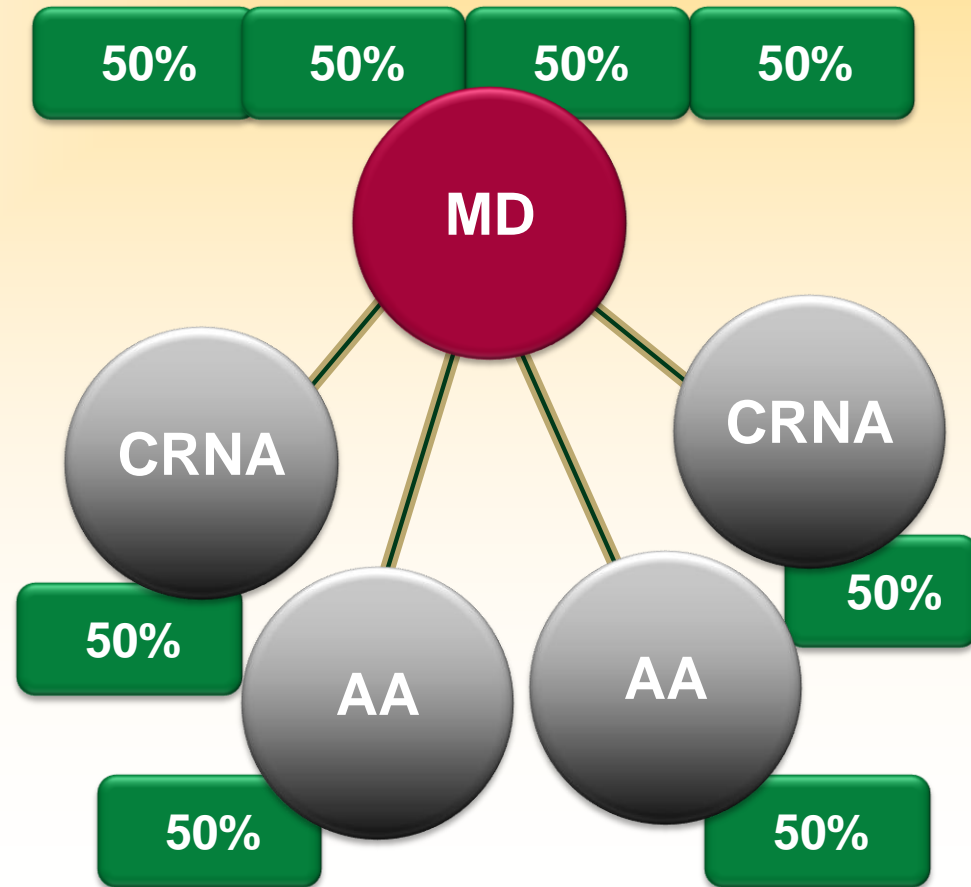


# What about others?

MD / CRNA / SRNA (QK)  
1:2 Medical Direction

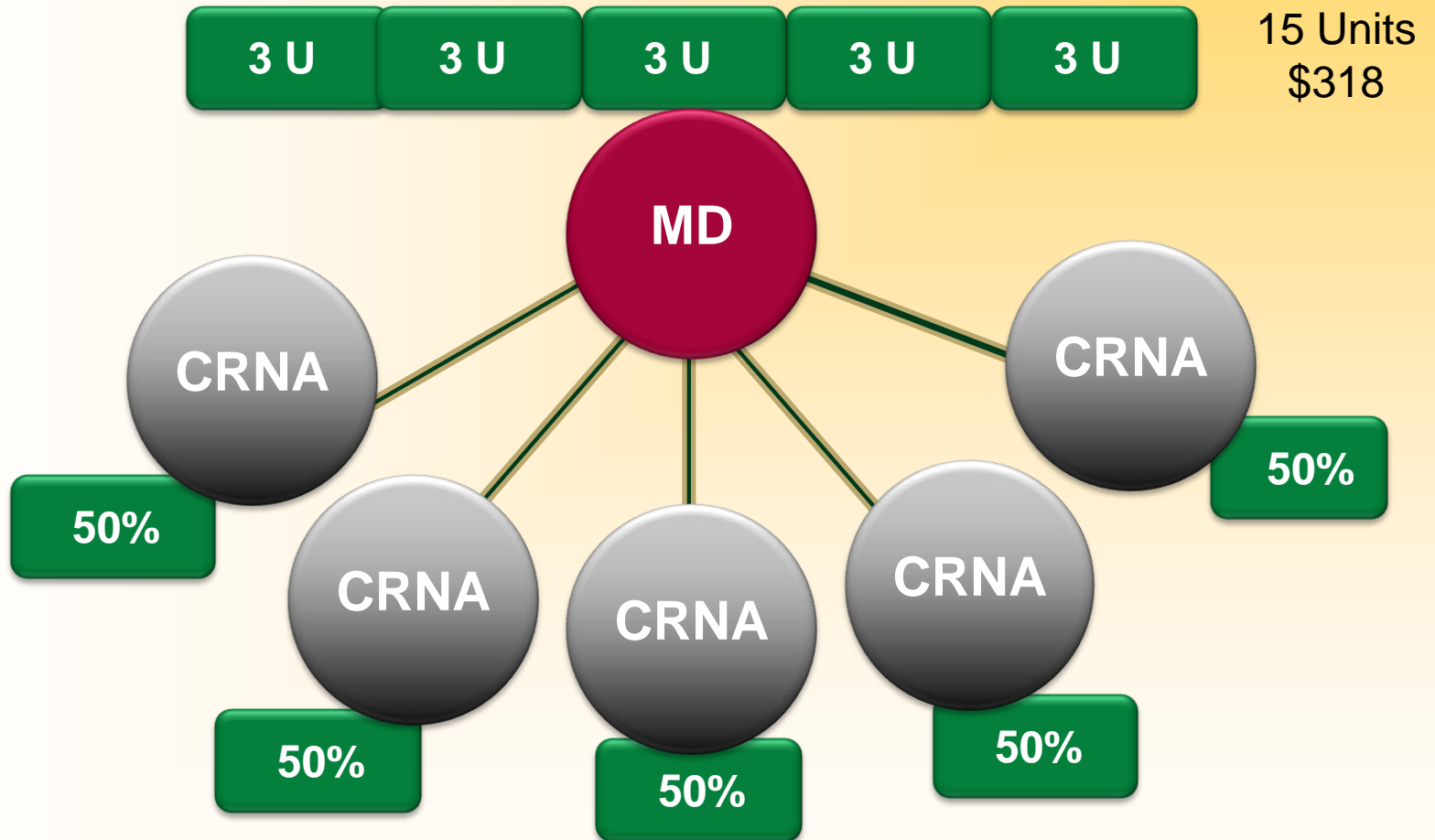


MD / CRNA / AA (QK)  
1:4 Medical Direction

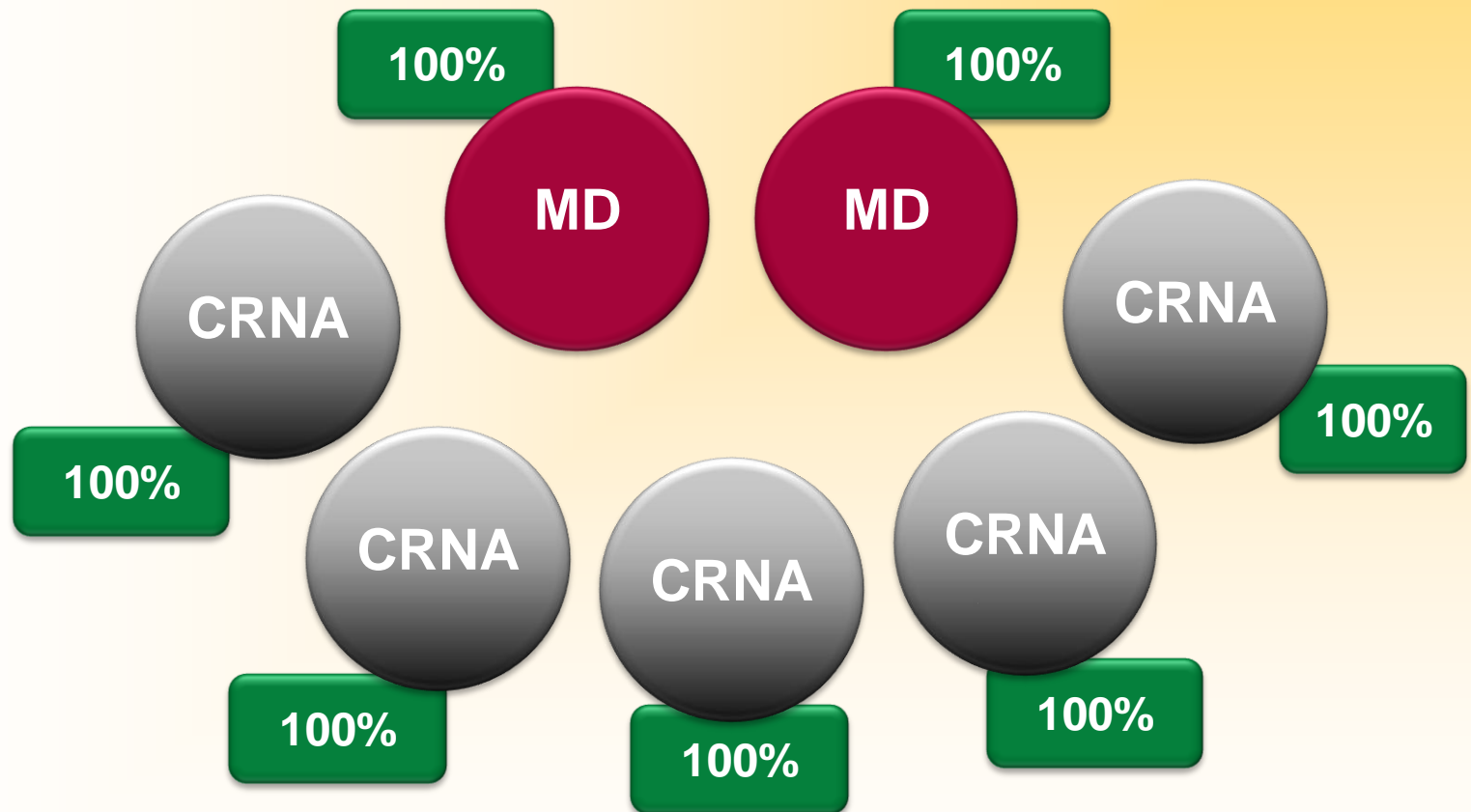




# Medical Supervision



# Non Medically Directed Group



# Economic Analysis

Inpatient Simulation with Average Demand (Results in Dollars)

Model Four per Station per Day	Yearly Total Revenue (12 stations)*	Yearly Total Costs (12 stations)*	Yearly Total Revenue Minus Total Cost (12 stations)*
Medical direction 1:4	\$5,401,171	\$3,048,000	\$2,353,171
Medical direction 1:3	\$5,593,158	\$3,384,000	\$2,209,158
Medical direction 1:2	\$5,673,606	\$4,056,000	\$1,617,606
Medical direction 1:1	\$5,697,316	\$6,072,000	-\$374,684
Anesthesiologist only	\$5,317,945	\$4,032,000	\$1,285,945
CRNA only	\$5,317,945	\$2,040,000	\$3,277,945
Supervisory 1:6	\$4,226,094	\$2,712,000	\$1,514,094

\*Four per station per day is defined as four anesthetics per anesthetizing location per day.



# RECOVERY AUDIT CONTRACTORS

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## Pitfalls & Perils



# Recovery Audit Contractors

- Federal government contracts with non-government firms to provide audits
  - 2006: Tax Relief and Health Care Act
    - Expanded the RAC program to include all 50 states
  - 2011: All 50 states participating
  - Process more than 10 Billion claims / year
- Incentive to identify billing errors
  - 17.5% “commission” to the auditor of over- or underbilled amounts
  - Approximately \$500,000,000 returned to Medicare annually...



# Recovery Audit Contractors

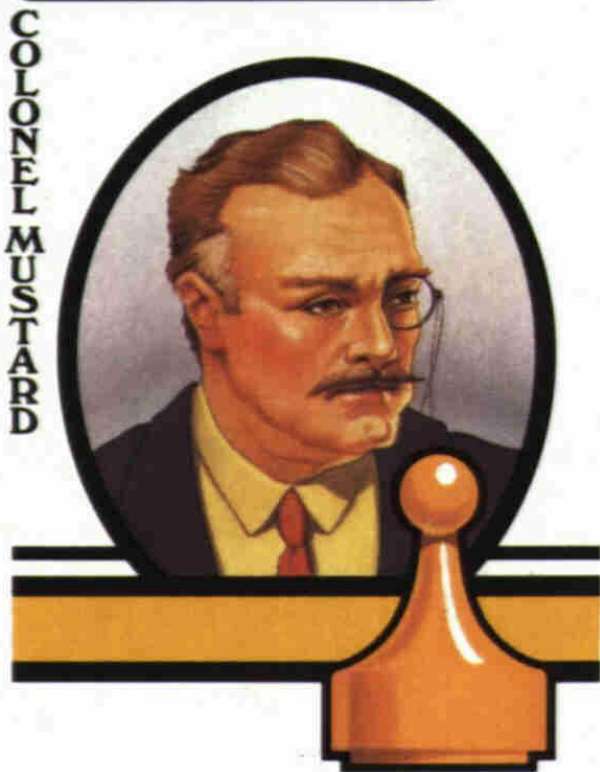
- False Claims Penalties
  - \$11,000 per claim
  - Plus 3x the claim amount
  - Plus legal fees
- *Can be extrapolated*
  - *RACs can look retrospectively 3 years*







COLONEL MUSTARD



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COLONEL MUSTARD



# Avoiding Trouble

- Document clearly and accurately
  - Times
    - Accurate
    - No rounding
    - Follow definitions
  - Procedure Coding
    - Appropriate to case
- Avoid Kickbacks
  - No money back to referring practitioner
- TEFRA is King!!
- Remember HIPAA
  - \$100-\$1.5 million *per occurrence*






## Question

In your career, have you every observed practices that you may consider to be fraud, waste, or abuse?

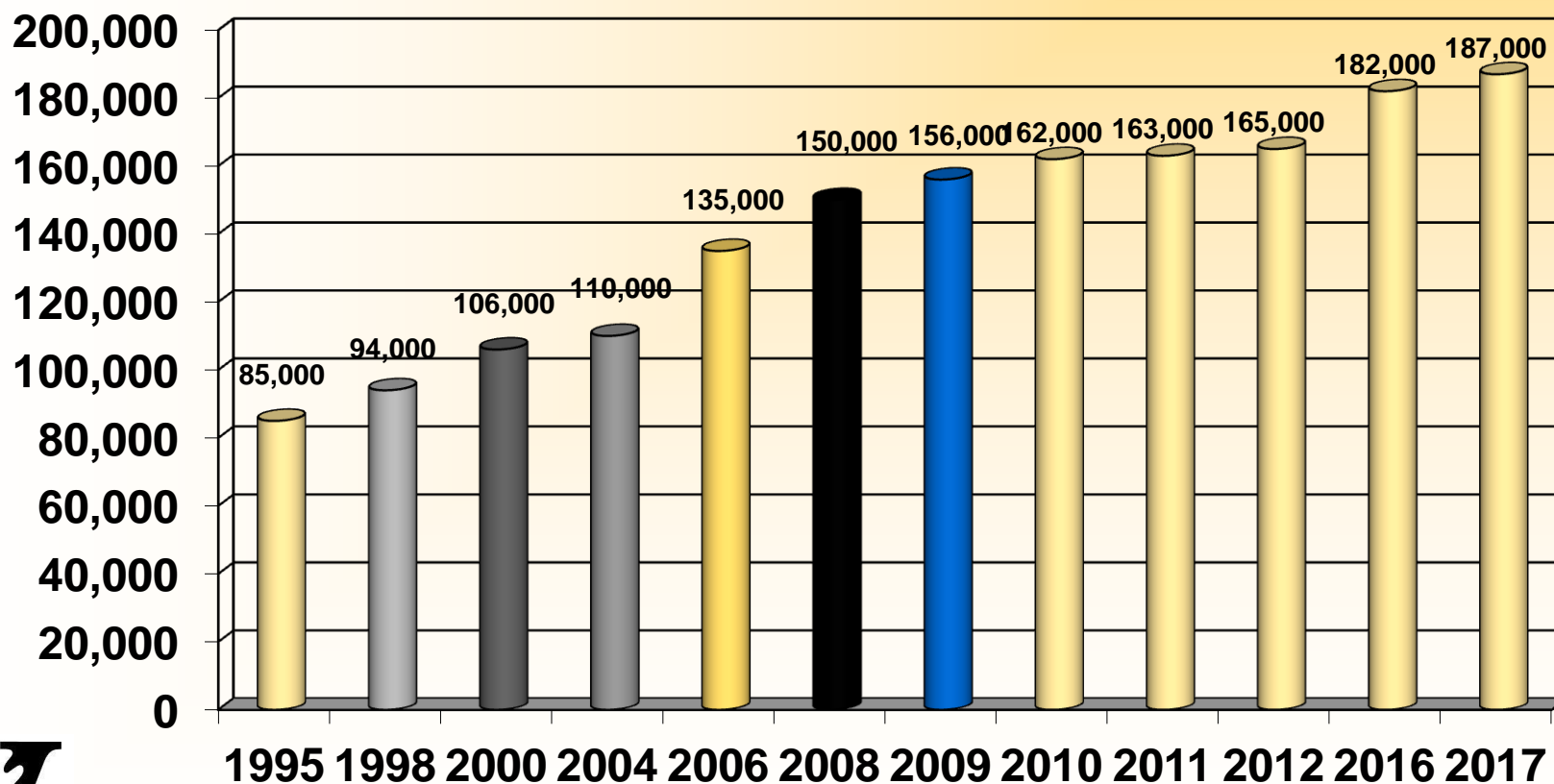
1. Yes, for sure
2. Probably
3. No, never

# The Future

NEXT EXIT 

# Future Implications

## CRNA Median Income

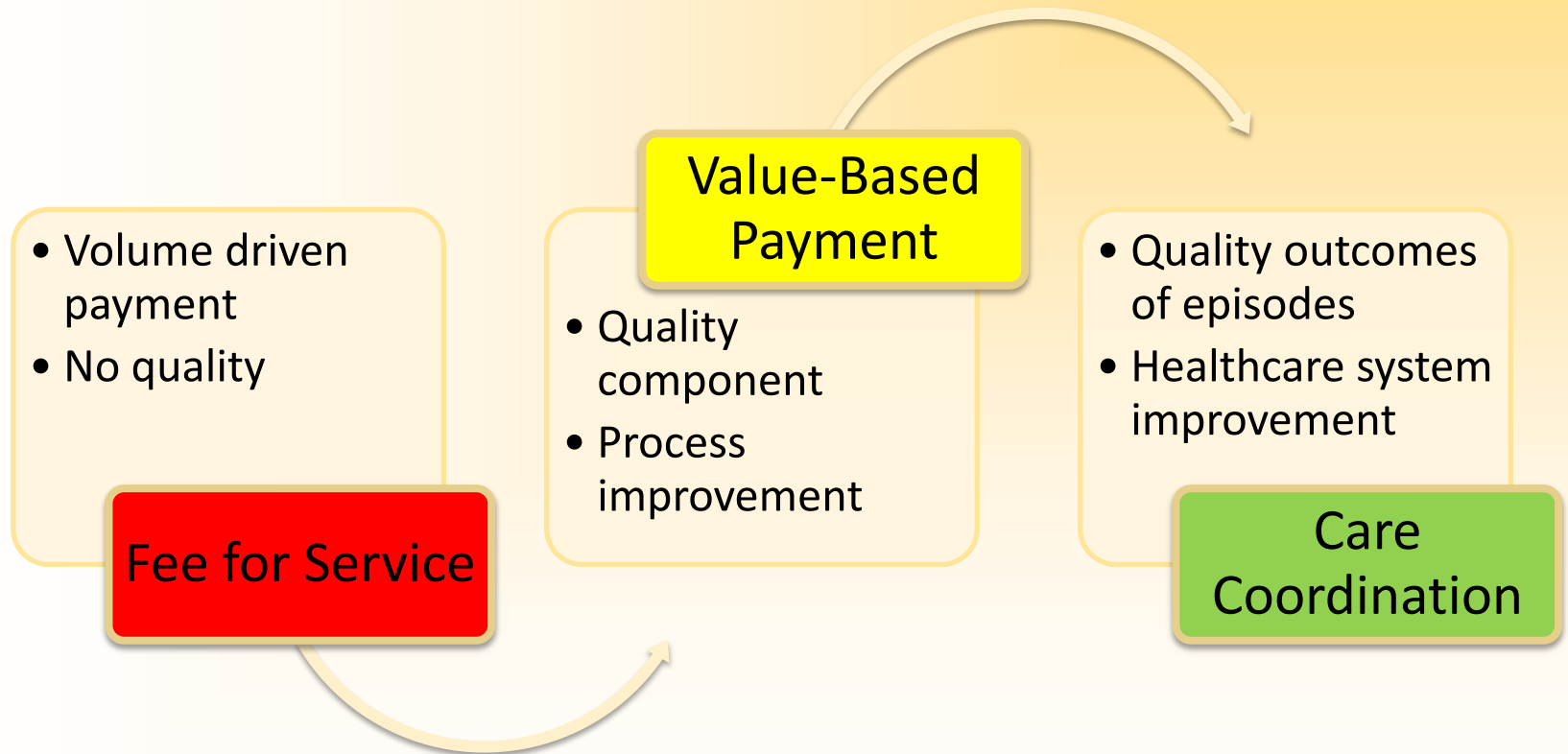


# Where are we heading?

- Quality > Quantity
- Created from the Affordable Care Act Implementation
  - Moving toward Alternative Payment Models (**APM**)
  - All Involved Providers reimbursed collectively for the entire cost of care continuum



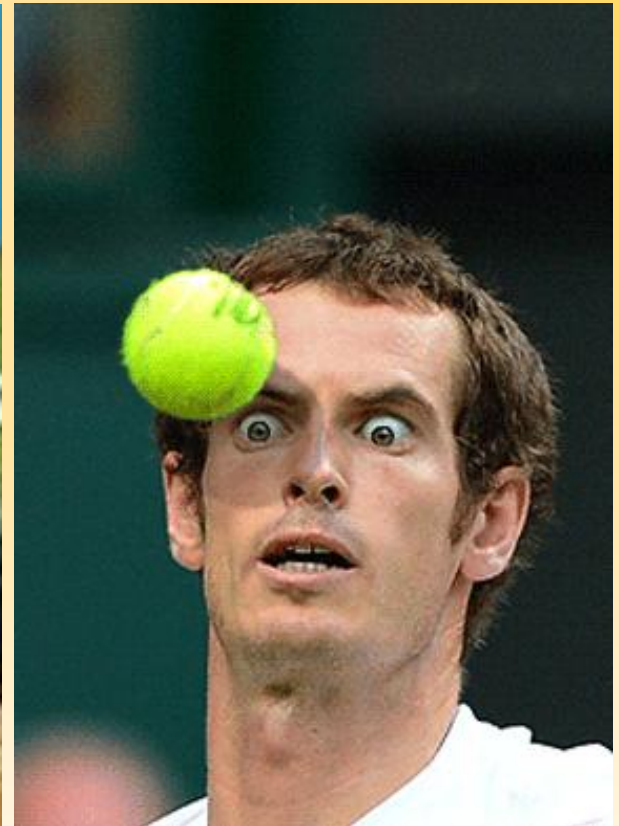
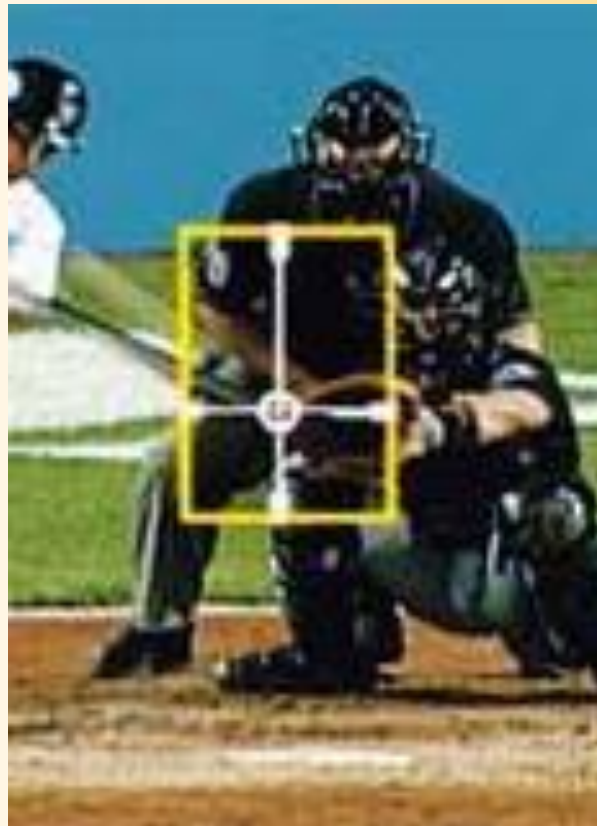
# Evolution



# What does it Mean?

- **MACRA:** Medicare Access and CHIP Reauthorization Act of 2015
  - Updates: Bipartisan Budget act of 2018
  - **PQRS:** Physician Based Quality Reporting System
  - Medicare **EHR** / Meaningful Use
- **MIPS:** Merit Based Incentive Payment System (2017)
  - Performance score





Where will it land?

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# Questions?

