

# Pediatric Benchmarks

An Analysis of Independent Pediatric Practices, 2019-2022

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CNHN Business of Pediatrics 2023

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# What Is A Benchmark?

**bench·mark** /'benCH,märk/

Noun:

A standard or point of reference against which things may be compared or assessed.

[dictionary.com]

# What Is A Benchmark?

- Why use them?
- How do I use them?
- Where do I get them?
- **Who is my most important comparison?**

# What Is A Benchmark?

- What makes a good benchmark?
- What if my results are different?
- Where can I ask questions?

# About Today's Benchmarks

- Sample Source
- Practice Sizes, Locations, Type
- Bias
- COVID!

# A/R Days

## What it measures:

Approximates the time it takes to collect outstanding balances. Allows practices of different sizes or production to compare results.

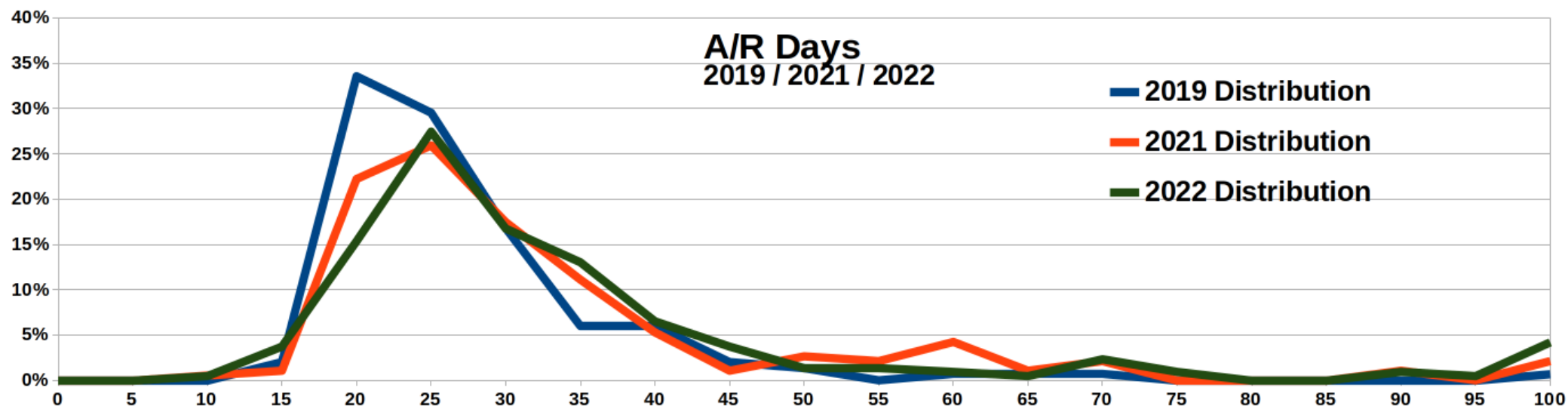
## How to calculate:

Divide A/R total by average daily charges (use at least 3 months of data).

$$\begin{aligned} &\$300,000 \text{ (A/R)} / \$10,000 \text{ (Average Daily Charges)} \\ &= 30 \text{ A/R Days} \end{aligned}$$

# A/R Days

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	16.87	19.23	27.12	22.57	27.42	36.91
2021	17.46	20.46	24.97	25.02	33.76	55.91
2022	17.23	21.13	35.30	25.27	33.31	56.68



# A/R > 60 Days Old

## What it measures:

How much of your A/R approaches noncollectable status.

## How to calculate:

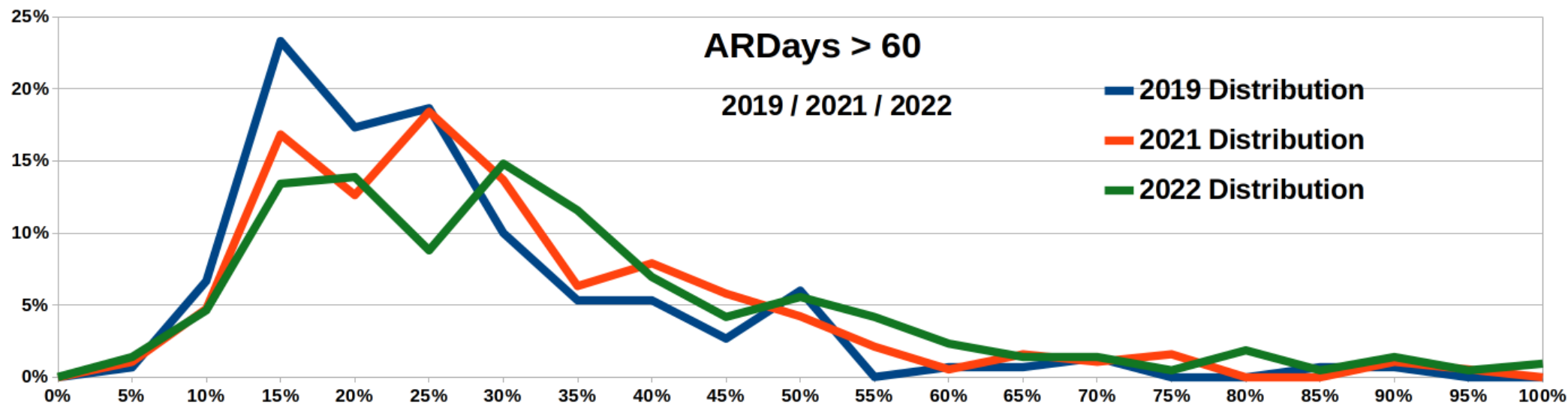
Divide A/R that is older than 60 days by total A/R.

$$\begin{aligned} & \$30,000 \text{ (A/R >60 days)} / \$100,000 \text{ (Total A/R)} \\ & = 30\% \text{ of A/R is >60 Days} \end{aligned}$$



# A/R > 60 Days Old

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	10.4%	13.5%	23.9%	20.7%	29.3%	44.4%
2021	11.3%	16.4%	27.7%	24.1%	35.2%	47.6%
2022	12.0%	18.0%	31.9%	28.0%	40.0%	56.5%



# Revenue Per Visit

## What it measures:

The average revenue generated per patient visit, across all payers and visit types.

## How to calculate:

Divide your total revenue by your total visits *for those visits* for a given time frame (one year is best)

$$\begin{aligned} & \$3,000,000 \text{ (total collected)} / 30,000 \text{ (total visits)} \\ & = \$100 \text{ per visit} \end{aligned}$$

# Revenue Per Visit

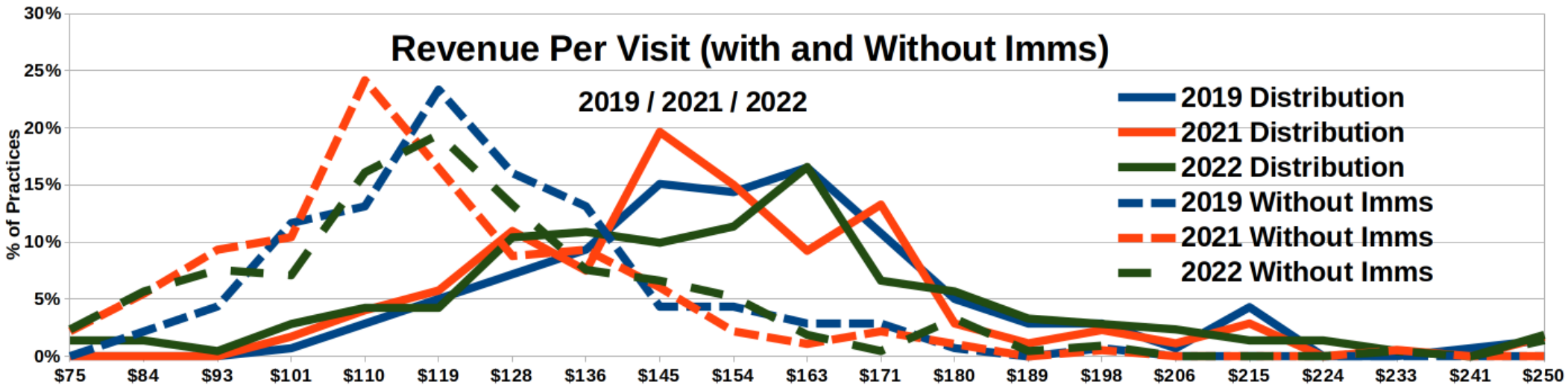
## Revenue Per Visit

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	\$120	\$137	\$154	\$151	\$166	\$186
2021	\$114	\$132	\$150	\$145	\$163	\$179
2022	\$109	\$128	\$150	\$149	\$164	\$191

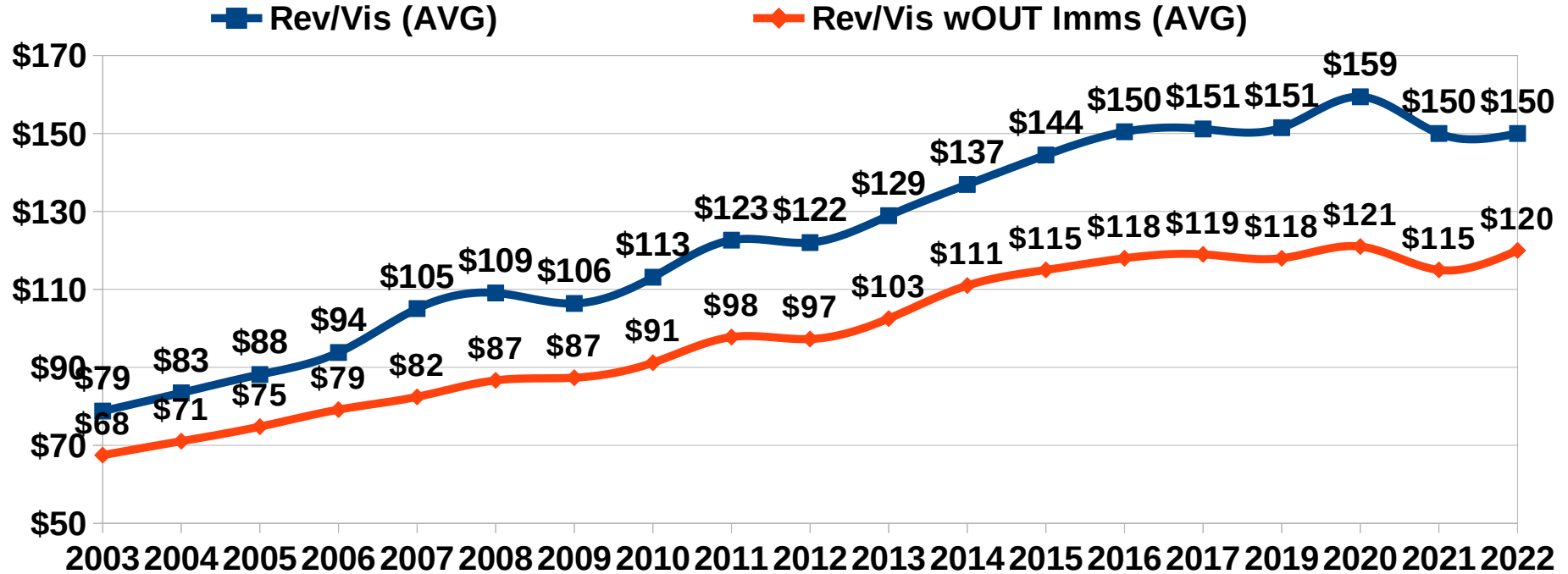
## Revenue Per Visit, No Imms

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	\$96	\$106	\$122	\$118	\$131	\$151
2021	\$86	\$99	\$110	\$110	\$125	\$143
2022	\$88	\$104	\$120	\$115	\$132	\$152

# Revenue Per Visit



# Revenue Per Visit



# After Hours Coding

## What it measures:

Percentage of visits that have the time-based codes for indicating work done on holidays, after-hours, etc.

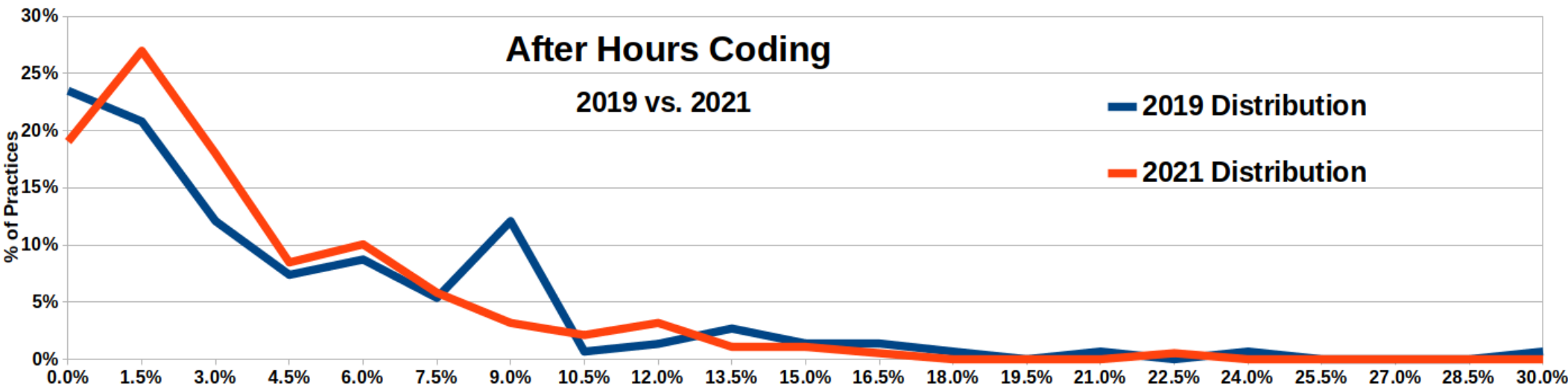
## How to calculate:

Divide total number of 99050+99051 codes by the total number of visits (which may not be all sick plus well visit codes).

$$\begin{aligned} &100 \text{ (after hours codes)} / 1,000 \text{ (visits)} \\ &= 10\% \text{ same day sick visits} \end{aligned}$$

# After Hours Coding

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	0%	0%	4.1%	2.4%	6.6%	9.2%
2021	0%	0%	3.1%	1.7%	4.9%	8.0%



# Pricing

## What it measures:

The average “price” of your RVU-valid procedures, expressed in terms of Medicare pricing.

## How to calculate:

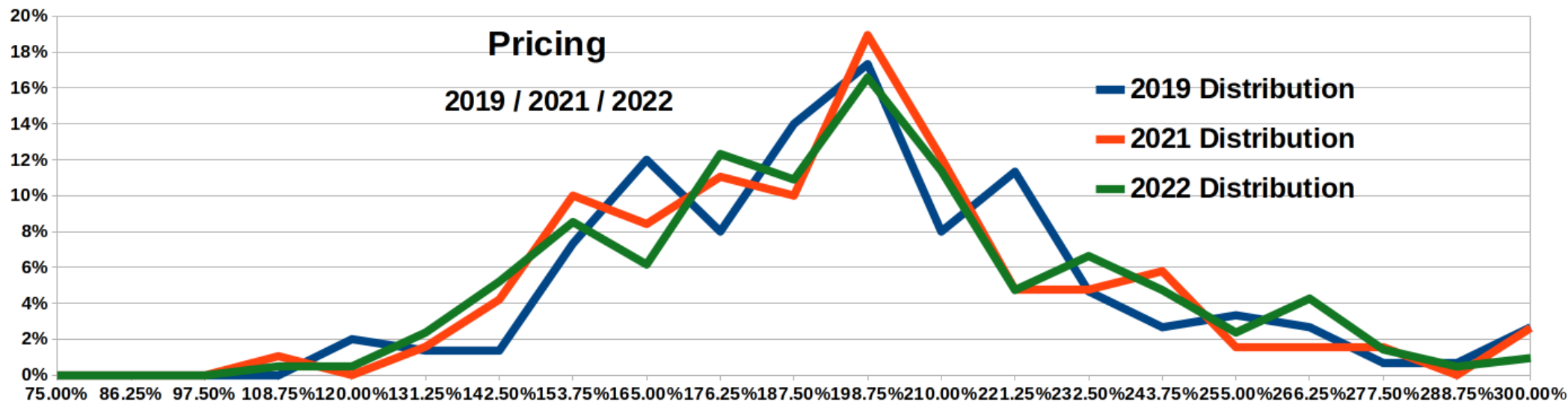
Divide total dollars charged for RVU-valid procedures for a given time frame by total RVUs performed for those procedures. Compare result to annual Medicare multiplier.

$$\begin{aligned} & \$3,000,000 \text{ (charges)} / 55,000 \text{ (RVUs)} \\ & = \$54.54 \text{ Dollars Charged per RVU performed} \\ & 54.54 / 35.80 \text{ (2015 Medicare rate)} = 152\% \end{aligned}$$



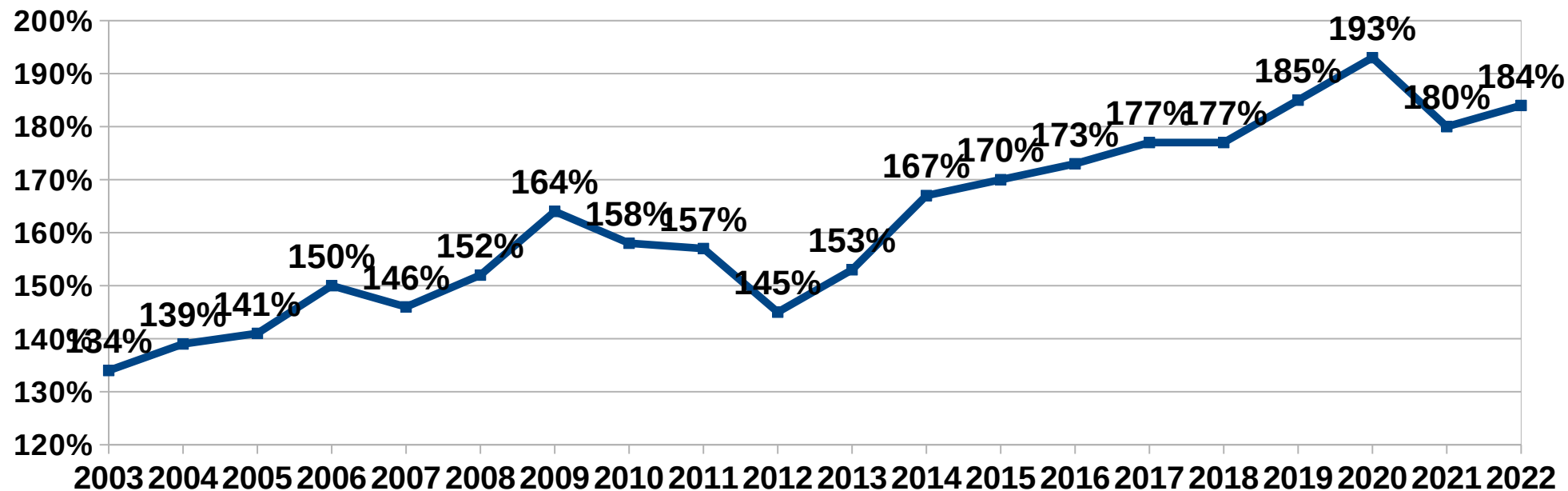
# Pricing

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	153%	167%	194%	192%	215%	242%
2021	146%	164%	191%	189%	208%	237%
2022	145%	167%	190%	189%	211%	241%



# Pricing

## Pricing Relative to Medicare



# Gross Collection Rate

## What it measures:

The average rate of dollars collected per dollars charged. Does not measure *net* collections and global payments, such as performance bonuses

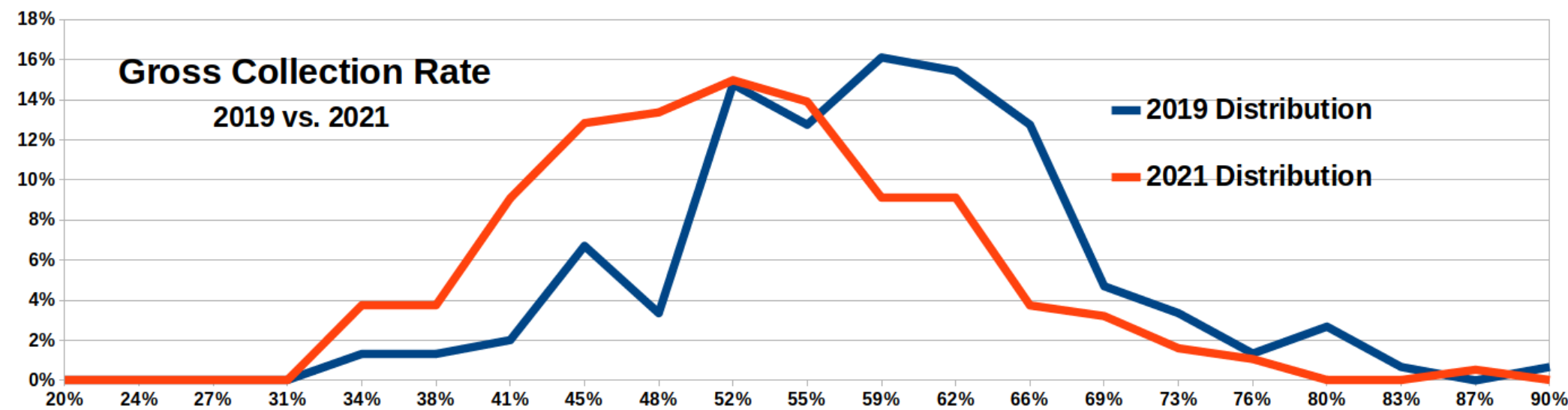
## How to calculate:

Divide total revenue by total charges.

$$\begin{aligned} & \$3,000,000 \text{ (payments)} / \$6,000,000 \text{ (charges)} \\ & = 152\% \end{aligned}$$

# Gross Collection Rate

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	43.4%	50.1%	56.3%	56.6%	62.2%	67.9%
2021	38.9%	43.6%	50.0%	50.2%	55.7%	61.9%



# Medicaid Coverage

## What it measures:

The percentage of active patients who are covered by Medicaid as measured by patient count (not volume or revenue)

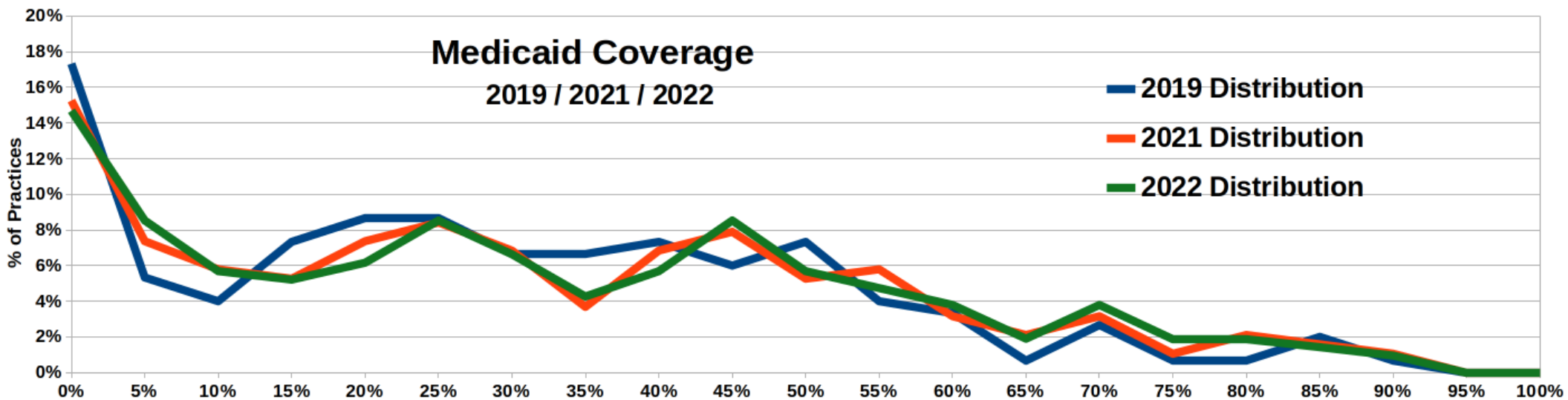
## How to calculate:

Divide total number of active patients who are covered by Medicaid by the total number of active patients. Active includes patients who have been to the practice in the last 3y and aren't marked inactive.

$$\begin{aligned} &2000 \text{ (patients)} / 8000 \text{ (patients)} \\ &= 25\% \end{aligned}$$

# Medicaid Coverage

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	0%	9%	27%	24%	42%	56%
2021	0%	7%	29%	26%	46%	61%
2022	0%	7%	30%	27%	46%	65%



# E&M Distribution

## What it measures:

The rate at which you code for 99214s and 99215s relative to your entire E&M distribution.

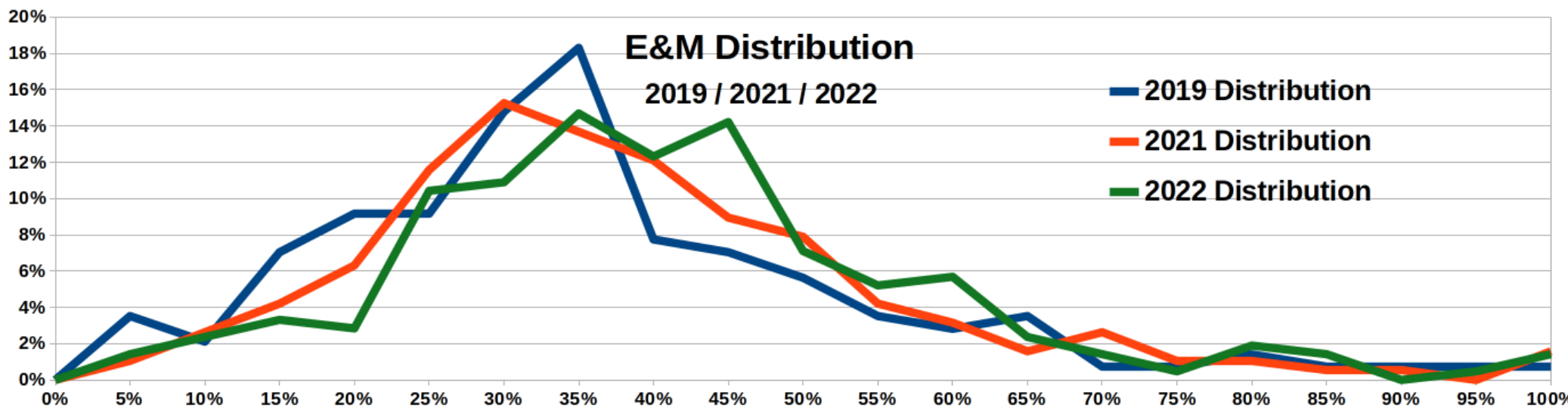
## How to calculate:

Divide the total of 99214s and 99215s for a specific time frame by your total number of 99212 – 99215 codes. Exclude -25 modified codes?

$$\begin{aligned} & 3,000 (99214s + 99215s) / 20,000 (\text{total E\&M visits}) \\ & = 15\% \end{aligned}$$

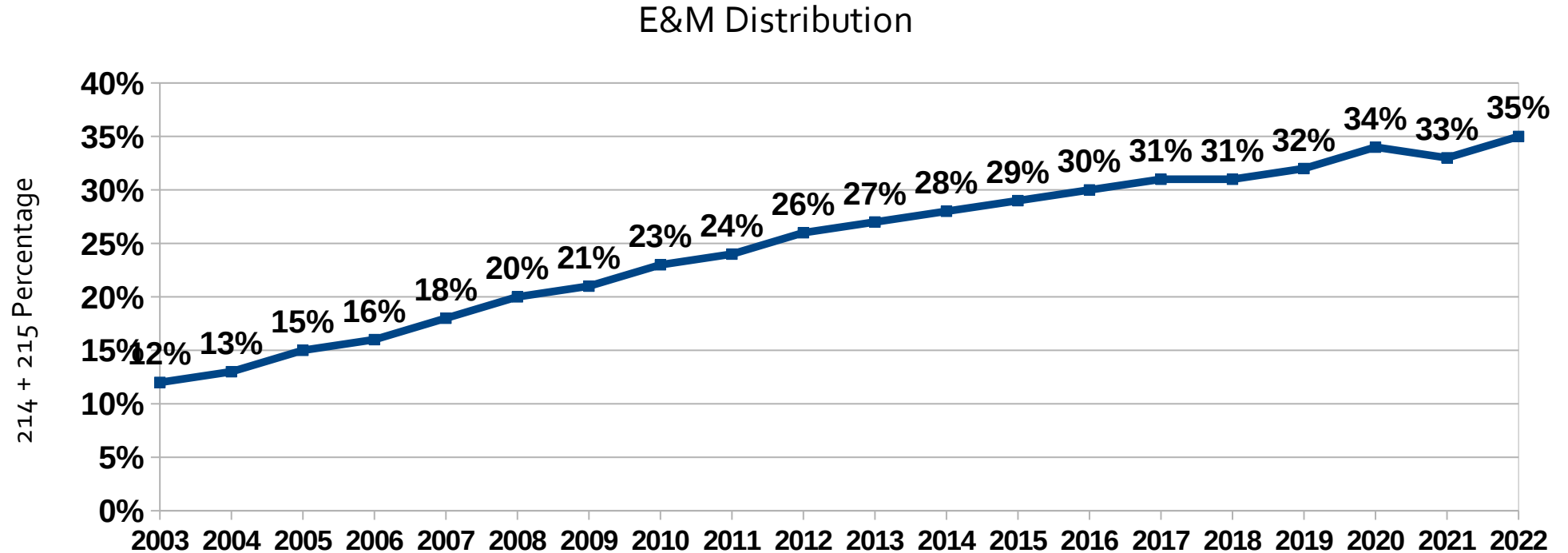
# E&M Distribution

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	14%	22%	34%	31%	42%	57%
2021	18%	25%	36%	33%	44%	58%
2022	20%	27%	39%	37%	47%	59%



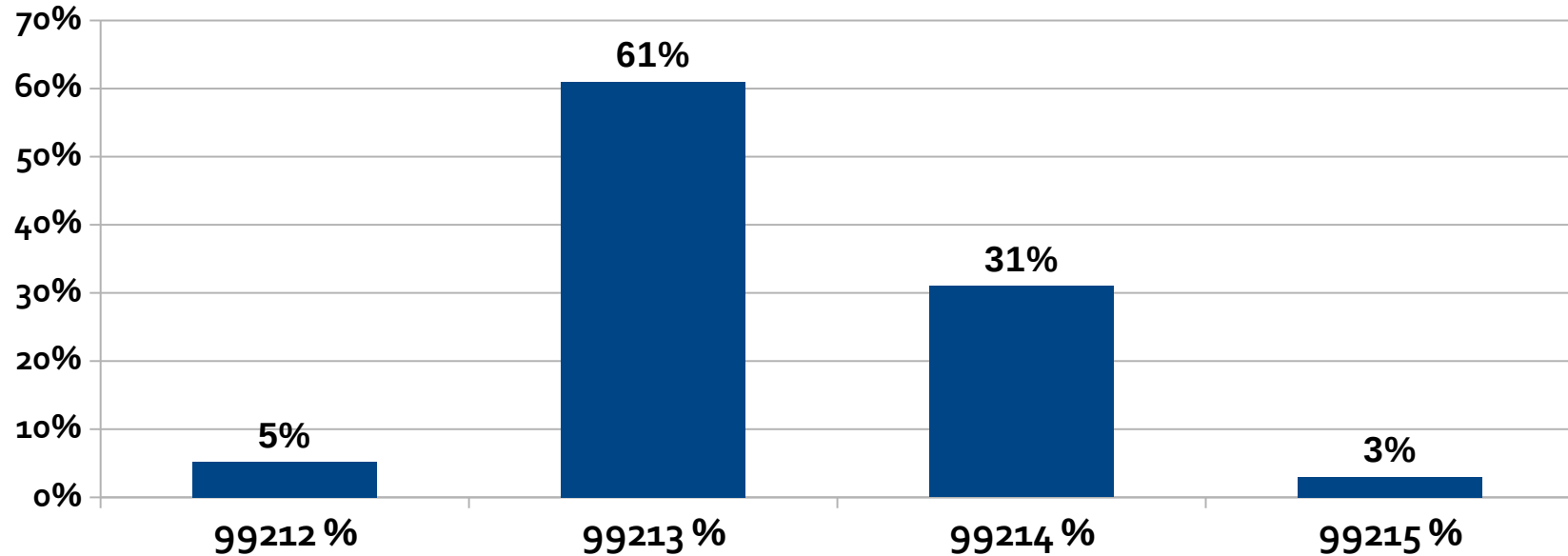


# E&M Distribution



# E&M Distribution

**E&M Distribution, 2021**



# RVUs Per Visit

## What it measures:

The average number of valid RVUs performed per visit. Measures complexity of visits and is a good predictor of coding and revenue.

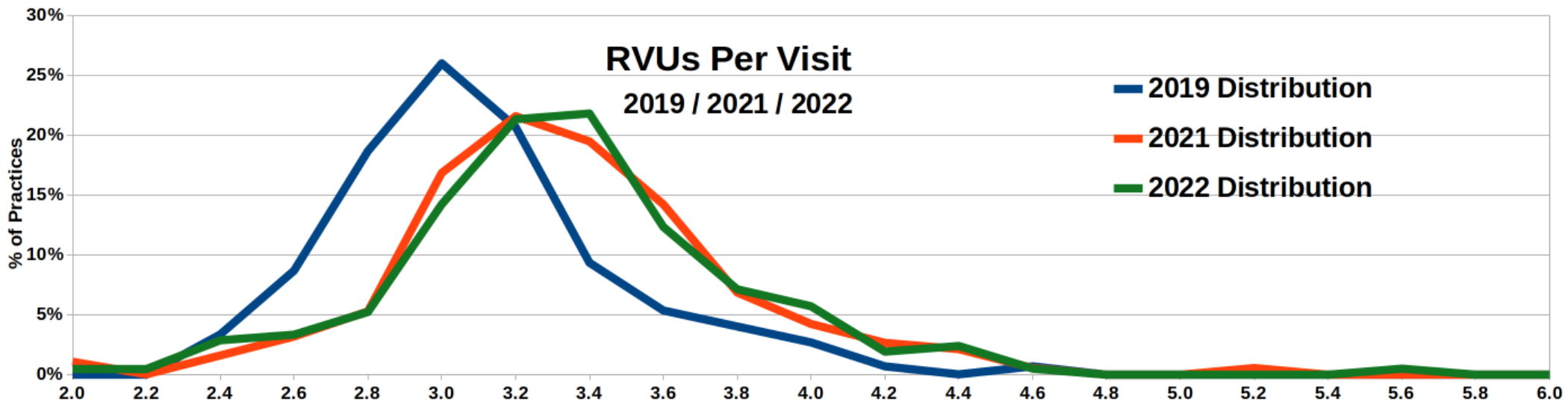
## How to calculate:

Divide total RVUs performed for RVU-valid procedures for a given time frame by total visits.

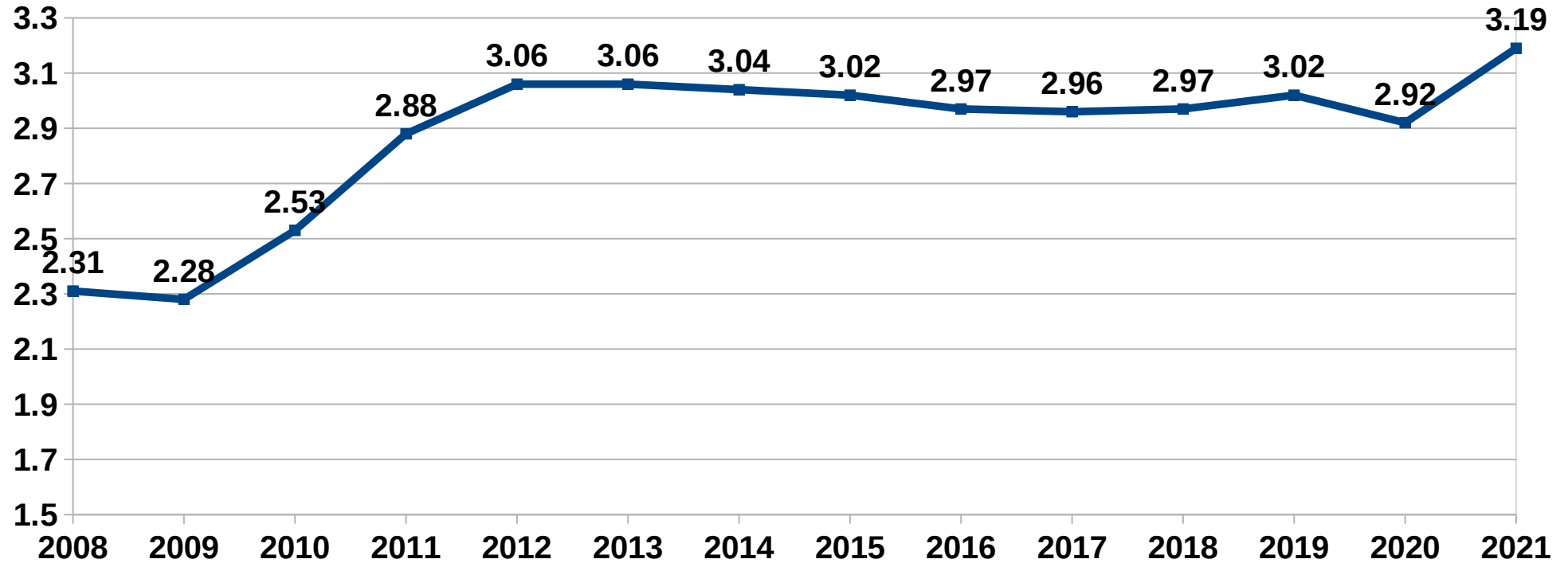
$$\begin{aligned} &55,000 \text{ (RVUs)} / 30,000 \text{ (total visits)} \\ &= 1.833 \text{ RVUs per visit} \end{aligned}$$

# RVUs Per Visit

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	2.6	2.8	3.0	2.9	3.2	3.5
2021	2.8	3.0	3.2	3.2	3.5	3.8
2022	2.7	3.0	3.2	3.2	3.5	3.8



# RVUs Per Visit



# ICD10s Per Visit

## What it measures:

Practice coding knowledge and effort. Patient base complexity.

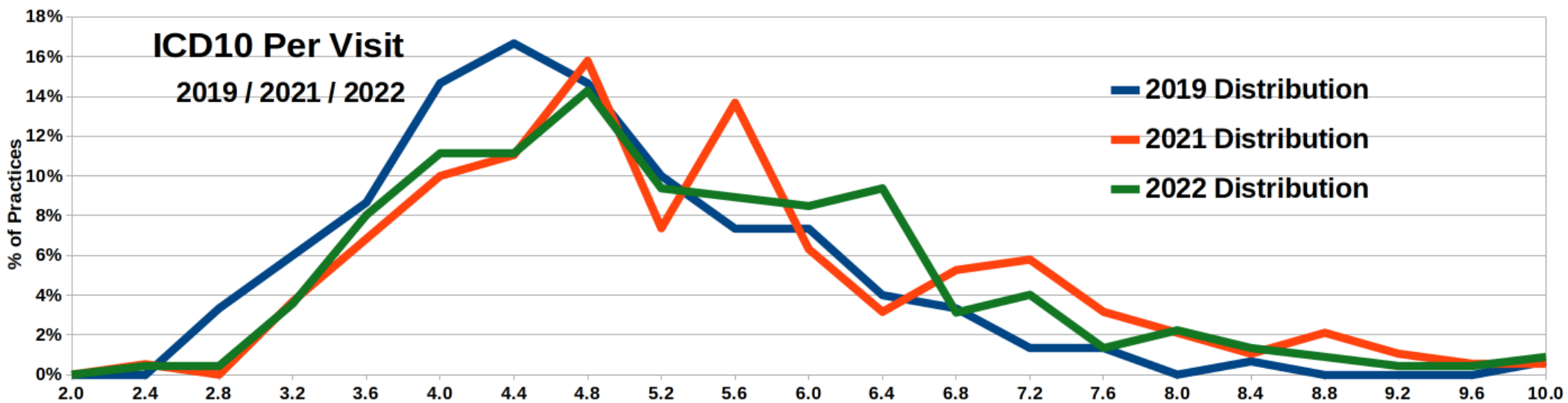
## How to calculate:

Divide total number of diagnoses by total visits for a given time frame.

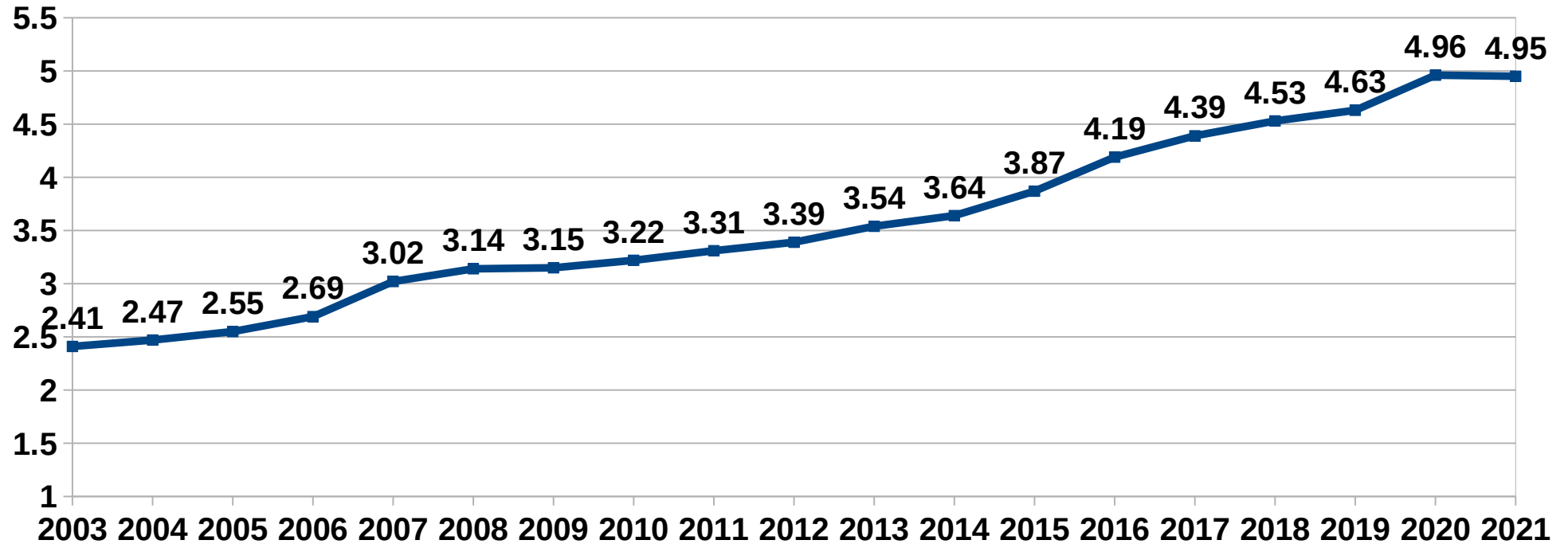
$$\begin{aligned} & 35,000 \text{ (total diagnoses)} / 10,000 \text{ (visits)} \\ & = 3.5 \text{ diagnoses per visit} \end{aligned}$$

# ICD10s Per Visit

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	3.3	3.8	4.6	4.5	5.2	6.1
2021	3.5	4.2	5.2	5.0	5.9	7.2
2022	3.5	4.1	5.1	4.9	6.0	7.0



# ICD10s Per Visit





# CPT Distribution By Volume (Top 50 - 84%)

CPT-5	AVG CHG	% of Volume	% of Charges
99213	\$134.56	12.4%	19.6%
99214	\$194.21	18.8%	33.9%
99392	\$193.21	22.6%	42.7%
90460	\$43.19	41.7%	52.3%
99393	\$193.83	45.1%	60.0%
99391	\$181.65	48.6%	67.5%
99394	\$211.03	51.1%	73.6%
90461	\$28.52	64.0%	77.9%
99215	\$268.91	64.4%	79.3%
99395	\$225.52	64.9%	80.6%
90471	\$42.80	67.4%	81.8%
99212	\$87.78	68.5%	83.0%
96110	\$32.57	72.7%	84.5%
99381	\$209.05	73.1%	85.4%
92551	\$27.81	75.7%	86.3%
99383	\$221.16	75.9%	86.9%
92552	\$53.09	76.7%	87.4%
99203	\$193.25	77.0%	88.0%
96127	\$24.25	81.5%	89.3%
99204	\$287.42	81.7%	89.8%
99460	\$190.23	81.9%	90.3%
99382	\$216.05	82.1%	90.7%
92587	\$96.18	82.7%	91.4%
99238	\$140.46	82.9%	91.8%
99177	\$37.33	84.5%	92.5%

CPT-5	AVG CHG	% of Volume	% of Charges
99384	\$239.69	84.6%	92.8%
99188	\$38.42	85.5%	93.2%
99173	\$20.98	89.0%	94.1%
96160	\$24.75	91.2%	94.7%
17110	\$182.17	91.3%	94.9%
99211	\$47.25	91.7%	95.2%
99174	\$50.42	92.3%	95.6%
96161	\$22.46	93.9%	96.0%
54150	\$313.47	94.0%	96.2%
99401	\$60.40	94.2%	96.3%
90472	\$30.97	94.6%	96.5%
90837	\$287.31	94.7%	96.7%
G0447	\$19.51	95.4%	96.8%
69210	\$93.87	95.5%	96.9%
99462	\$105.98	95.6%	97.1%
17250	\$139.11	95.7%	97.2%
99202	\$138.27	95.7%	97.3%
G2023	\$34.81	96.0%	97.4%
99463	\$245.09	96.0%	97.5%
99205	\$358.00	96.1%	97.6%
97802	\$35.15	96.4%	97.7%
96372	\$39.80	96.6%	97.8%
94640	\$38.07	96.8%	97.9%
99443	\$140.41	96.8%	97.9%
90834	\$188.42	96.9%	98.0%

# New Patient Volume

## What it measures:

Percentage of visits represented by new patients. Indicates practice growth potential.

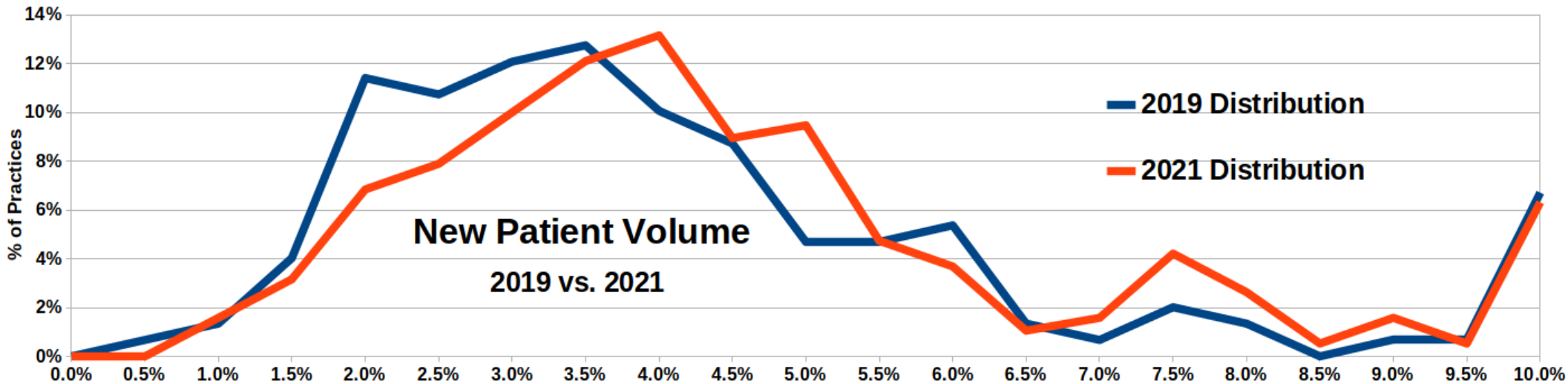
## How to calculate:

Divide total number of “new patient” E&M visits by total E&M visits. Includes well visits.

$$\begin{aligned} &100 (\text{new patient E\&Ms}) / 1,000 (\text{total E\&Ms}) \\ &= 10\% \text{ new patient rate} \end{aligned}$$

# New Patient Volume

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	1.7%	2.4%	4.2%	3.2%	4.9%	7.3%
2021	1.9%	2.8%	4.7%	3.8%	5.1%	7.8%



# Same Day Sick and Well Visits

## What it measures:

Percentage of visits that have sick and well CPT codes billed on the same day (e.g., a 99213-25 during a well visit).

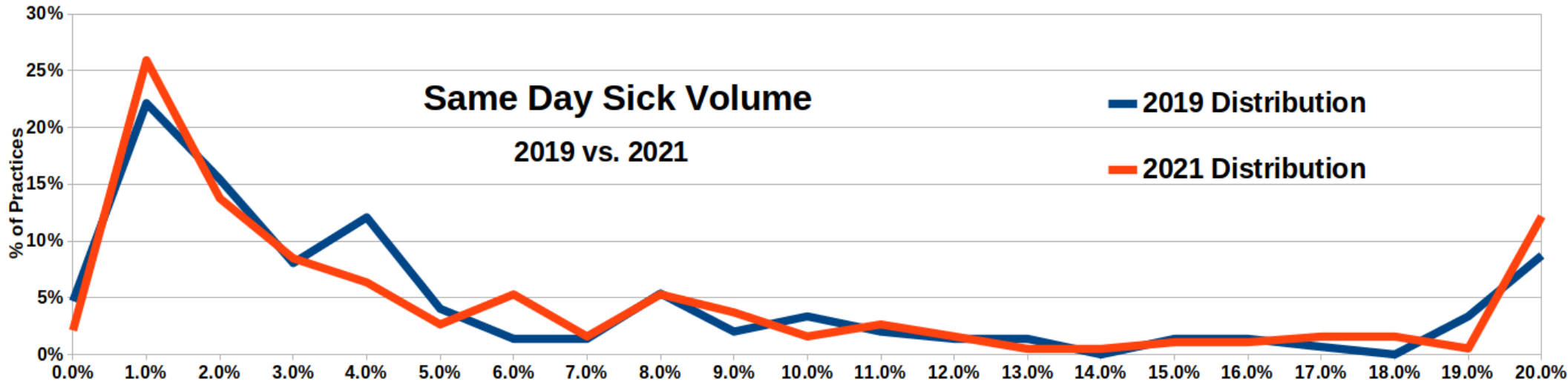
## How to calculate:

Divide total number of “modified” E&M visits that occur on the same day as a well visit by total well visits. *Do not* simple count -25 modified codes.

$$\begin{aligned} &100 \text{ (same day sick codes)} / 1,000 \text{ (well visits)} \\ &= 10\% \text{ same day sick visits} \end{aligned}$$

# Same Day Sick and Well Visits

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	.2%	.9%	7.2%	2.9%	8.5%	18%
2021	.2%	.7%	8.3%	3.0%	9.0%	23.8%



# Missed Visit Volume

## What it measures:

Percentage of visits that are considered “missed” by a practice.

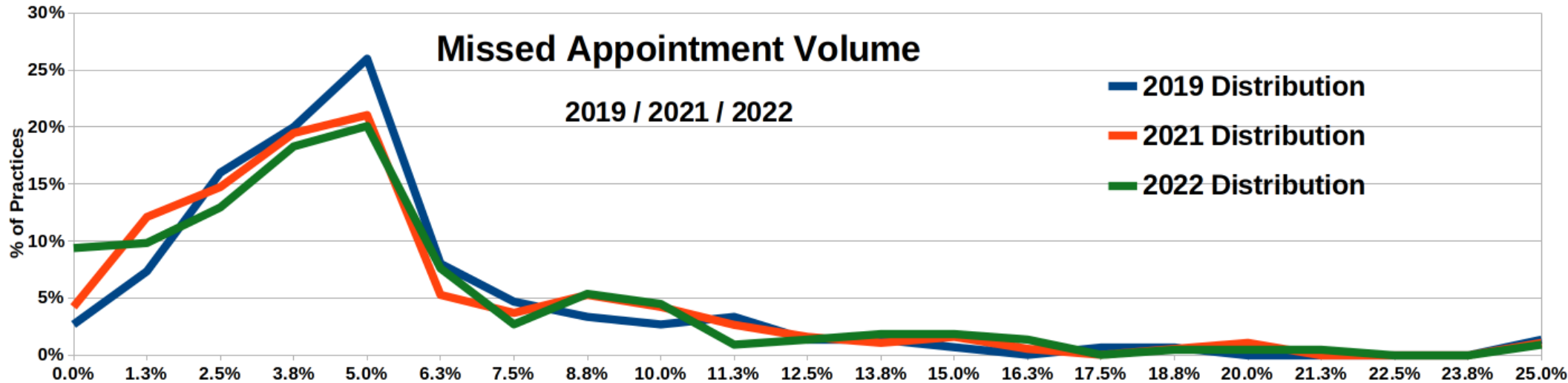
## How to calculate:

Divide total number of scheduled visits by total number of missed visits

$$\begin{aligned} &50 \text{ (missed visits)} / 1,000 \text{ (total visits)} \\ &= 5\% \text{ missed visit volume} \end{aligned}$$

# Missed Visit Volume

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	1.9%	2.0%	4.8%	4.0%	6.0%	10.0%
2021	1.0%	2.0%	4.8%	3.0%	6.0%	10.1%
2022	1.0%	2.0%	4.6%	3.0%	6.0%	10.0%



# Visit Volumes

In Person Sick

51.6%

In Person Well

23.9%

Telehealth Sick

4.9%

Phone Sick

.5%

Portal Sick

.1%

Telehealth Well

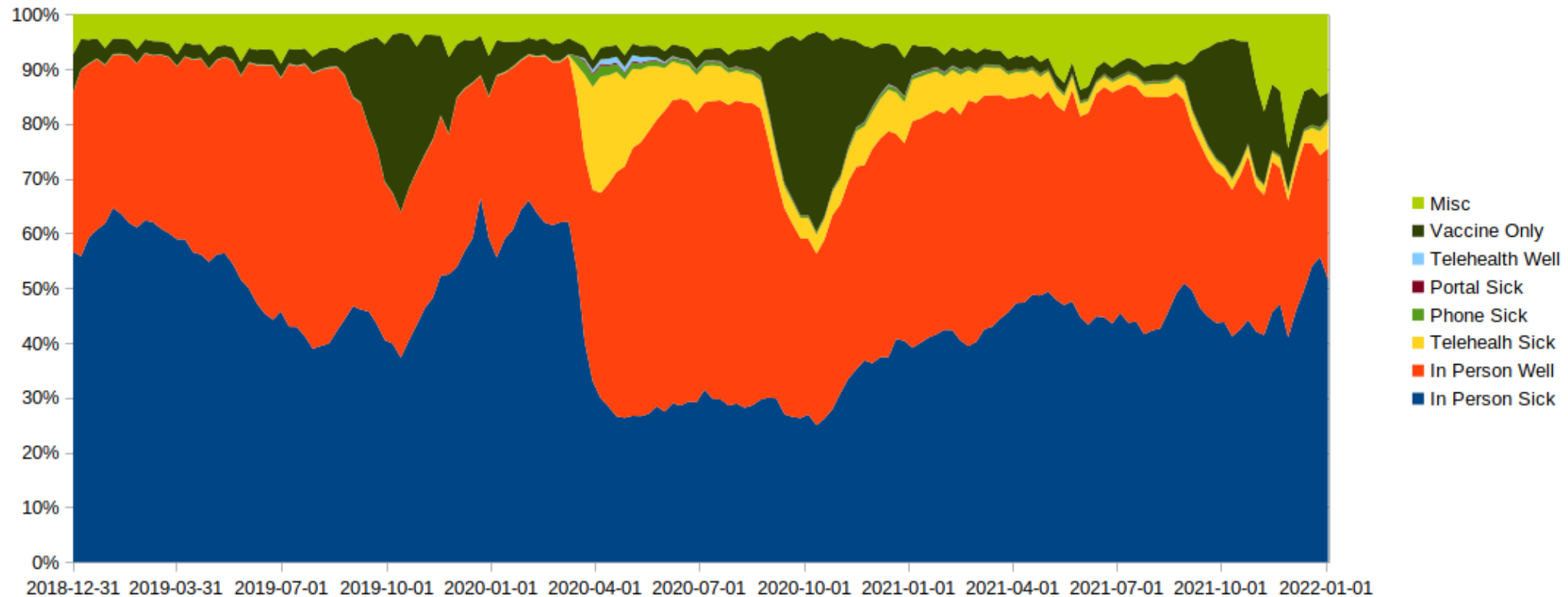
.01%

Vaccine Only

4.7%

Misc

10.0%





# Sick-to-Well Visit Ratio

## What it measures:

The ratio of sick visits to well visits performed in your office.  
Estimates focus on preventive care.

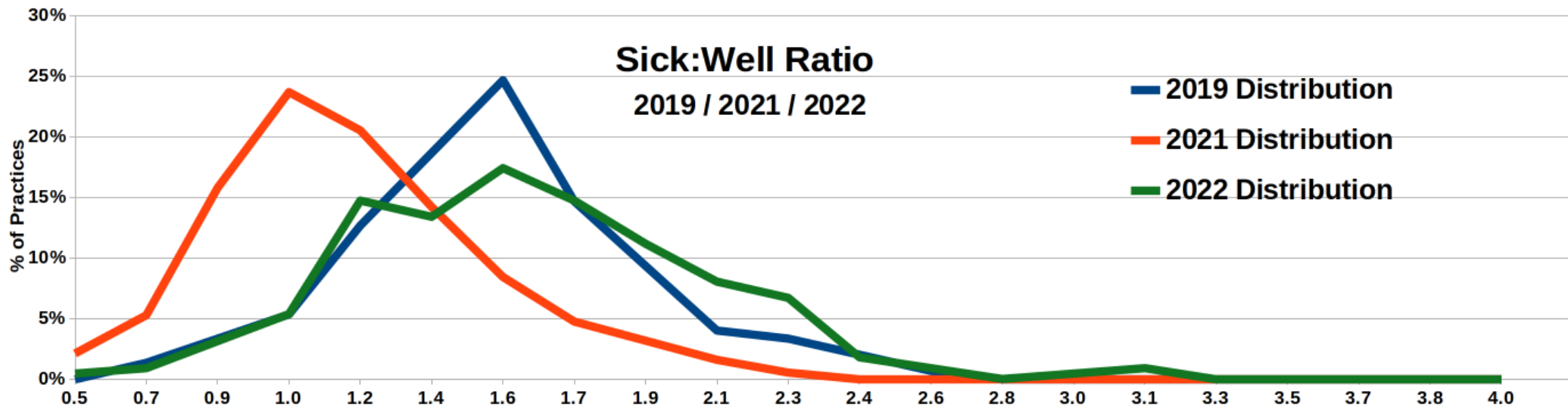
## How to calculate:

Divide total sick visits by total well visits (both new and established patients; eliminate -25 modified sick visits; look for visits that have neither sick/well codes attached).

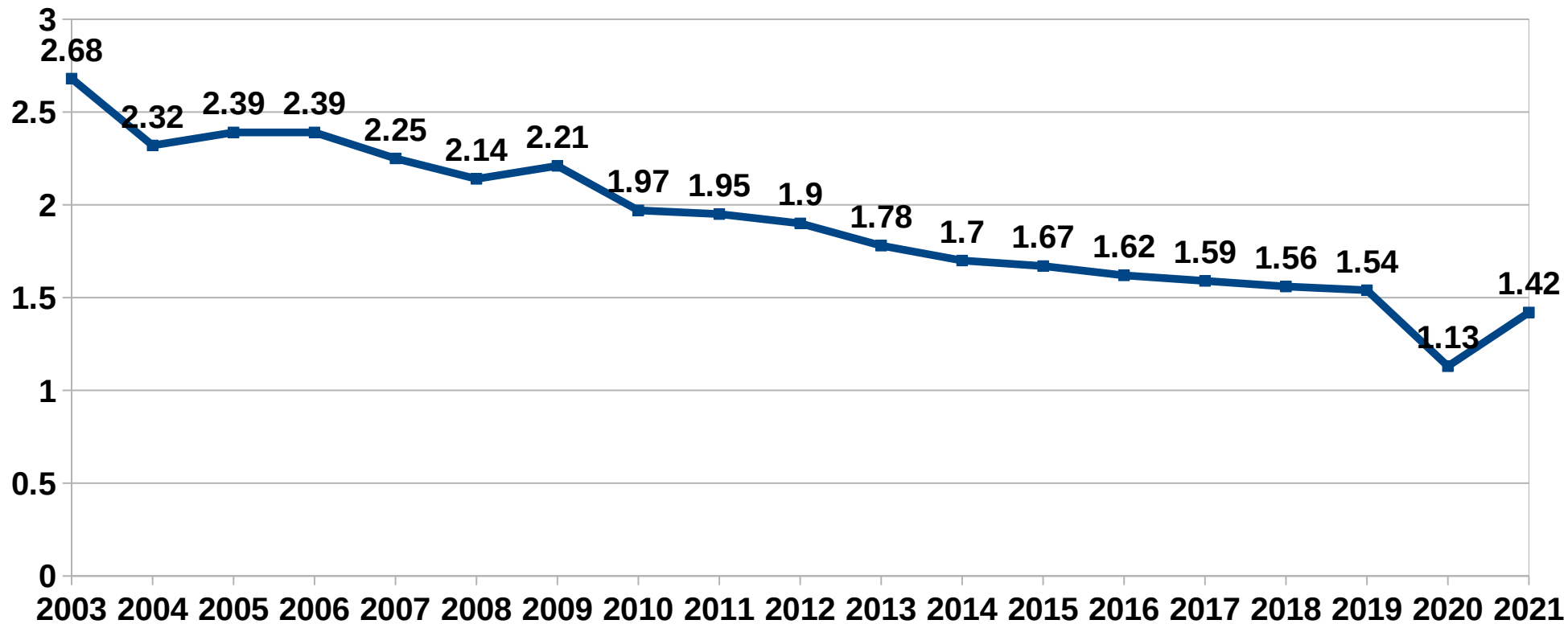
$$25,000 \text{ (total E\&M visits)} / 10,000 \text{ (total well visits)} = 2.5:1$$

# Sick-to-Well Visit Ratio

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	1.0	1.2	1.5	1.4	1.7	1.9
2021	0.7	0.9	1.1	1.0	1.3	1.5
2022	1.0	1.2	1.5	1.5	1.8	2.1



# Sick-to-Well Visit Ratio



# Well Visit Coverage

## What it measures:

The percentage of active children who are up-to-date with their physicals. Strong predictor of potential income, buffer against loss of visits. The most important work you do.

## How to calculate:

Divide the total number of active children who are up to date with well visits by the total number of active children.

$$4,000 \text{ (children up-to-date)} / 10,000 \text{ (active children)} = 40\%$$

# Well Visit Coverage

## How to calculate:

**0 – 15 months** – Patients are considered up-to-date on well visits if they have received six well visits by the time they turn 15 months old.

**15 months – 3 years** – Patients are considered up-to-date on well visits if they have received at least one well visit in the past six months.

**3 years – 6 years** - Patients are considered up-to-date on well visits if they have received at least one well visit in the past year.

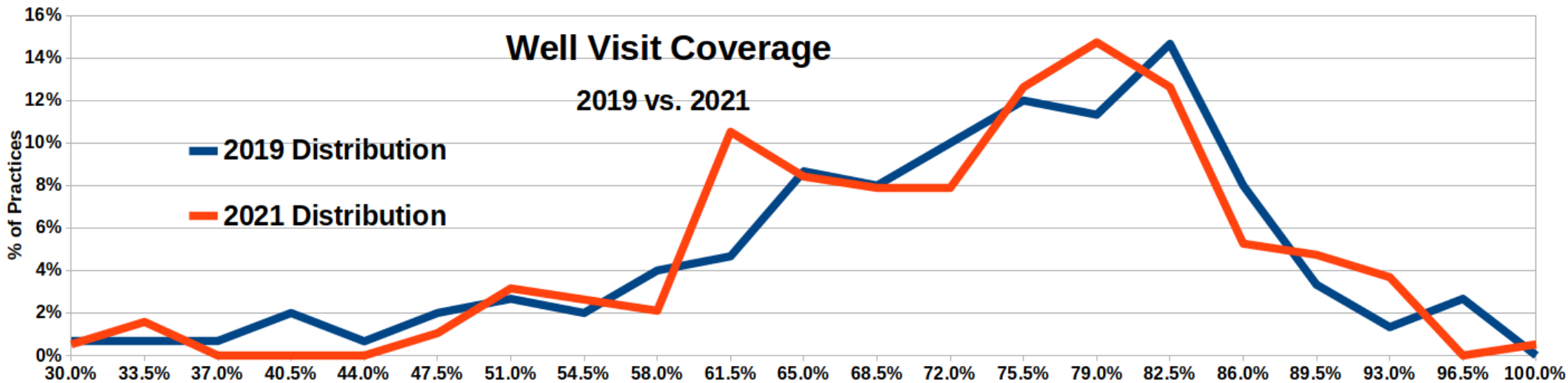
**7 years – 11 years** - Patients are considered up-to-date on well visits if they have received at least one well visit in the past year.

**12 years – 21 years** - Patients are considered up-to-date on well visits if they have received at least one well visit in the past year.

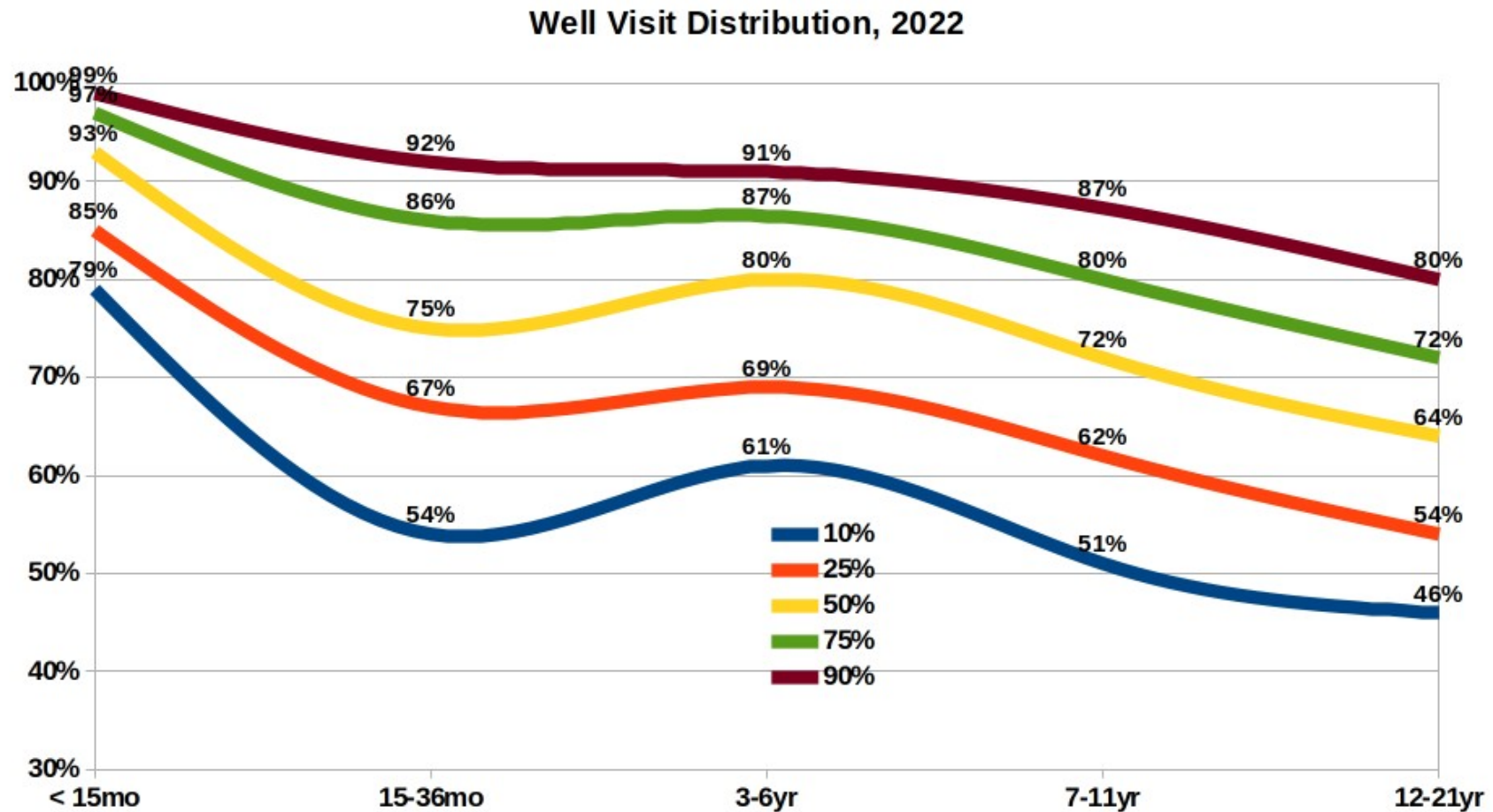
$$500 \text{ (Children up to date)} / 1,000 \text{ (total active children)} = 50\%$$

# Well Visit Coverage

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	54.0%	63.7%	71.2%	72.9%	79.8%	85.0%
2021	56.9%	63.4%	71.4%	72.8%	79.6%	84.8%



# Well Visit Coverage 2022



# Childhood Vaccination Status

## What it measures:

Percentage of children 2 years of age who had suite of vaccines by their second birthdays. The measure calculates a rate for each vaccine and two separate combination rates.

## How to calculate:

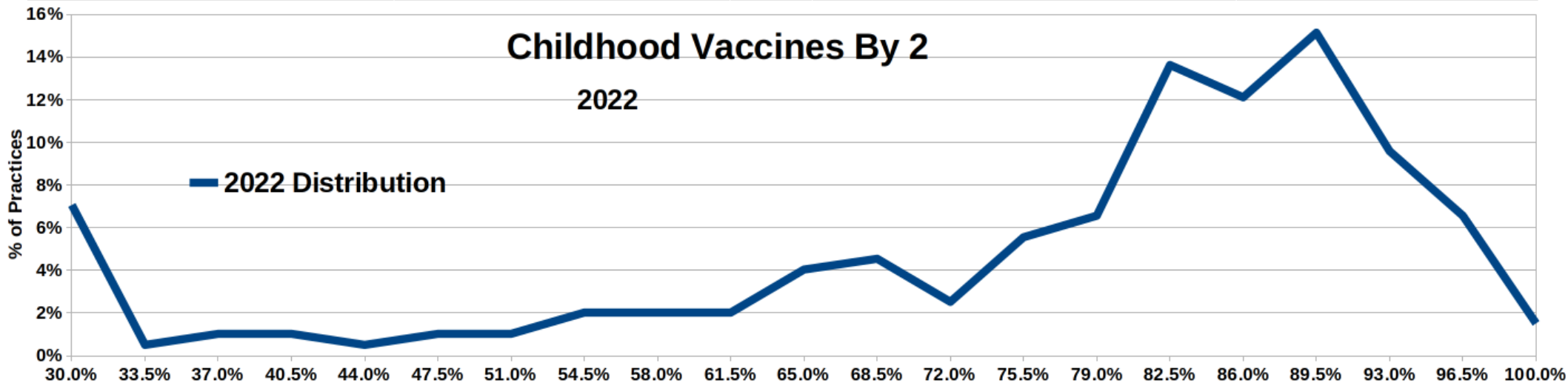
For each vaccine, calculate the number of children who had the requisite vaccines by their second birthdays.

$$\begin{aligned} &1,000 \text{ (children with 4 DPTs by age 2)} / 2,000 \text{ (active 2 years olds)} \\ &= 50\% \text{ coverage} \end{aligned}$$



# Childhood Vaccination Status

Vaccine	Coverage		Vaccine	Coverage
4 DTaP	85%		1 Hep A	89%
3 IPV	91%		2 Rotavirus	88%
1 MMR	91%		2 Influenza	70%
3 HIB	91%		4 Pneum.	85%
3 Hep B	88%		1 Varicella	91%
DTaP, IPV, MMR, HIB, Hep B, Varicella, Hep A, Rota	75%		Combo + Influenza	60%



# HPV Coverage

## What it measures:

Percentage of children 13-17 years old who have received two HPV vaccines.

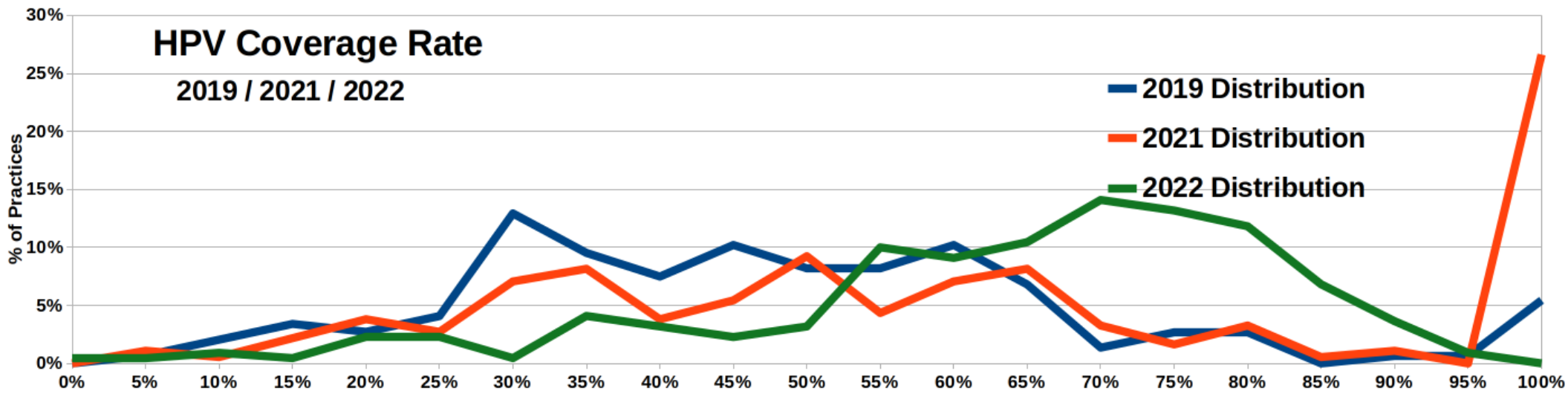
## How to calculate:

Divide the the number of active children between the ages of 13 and 17 by the number of active children between the ages of 13 and 17 who have had 2 HPV vaccines.

$$\begin{aligned} &1,000 \text{ (children with 2 HPVs)} / 2,000 \text{ (13-17 yos)} \\ &= 50\% \text{ coverage} \end{aligned}$$

# HPV Coverage

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	20%	30%	45%	43%	58%	71%
2021	20%	33%	57%	56%	99%	100%
2022	33.9%	53%	61%	65%	75%	81%



# Meningococcal Coverage

## What it measures:

Percentage of children 13-17 years old who have received 1 meningococcal vaccine.

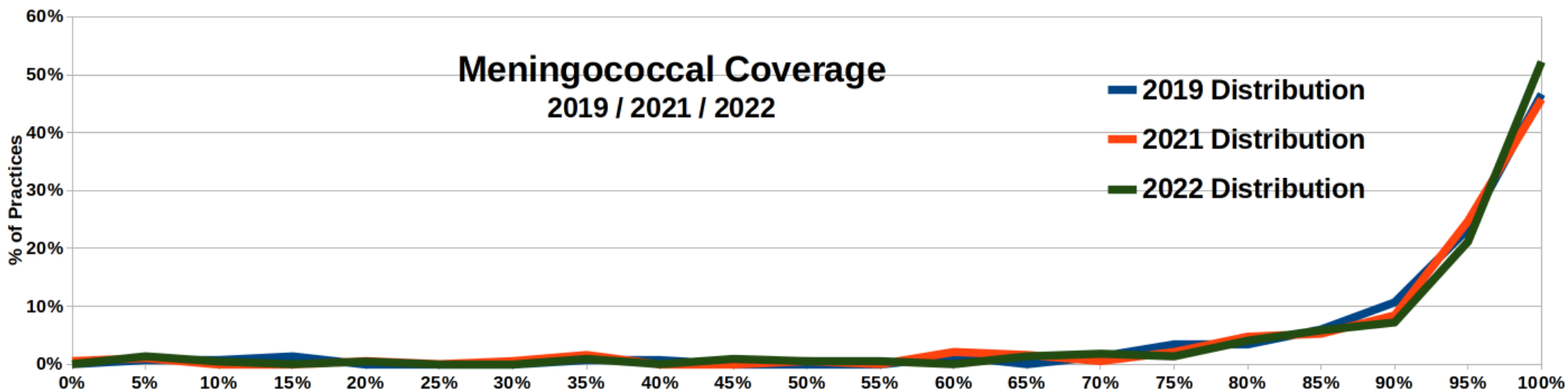
## How to calculate:

Divide the the number of active children between the ages of 13 and 17 by the number of active children between the ages of 13 and 17 who have had 2 meningococcal vaccines.

$$\begin{aligned} &1,000 \text{ (children with 2 Meng)} / 2,000 \text{ (13-17 yos)} \\ &= 50\% \text{ coverage} \end{aligned}$$

# Meningococcal Coverage

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	77%	89%	89%	95%	98%	99%
2021	74%	89%	89%	95%	97%	99%
2022	76%	89%	89%	95%	98%	99%



# Developmental Screening Rate - Adolescents

## What it measures:

The percentage of active adolescents with a well visit in the past year who have also received a developmental screening in the last year.

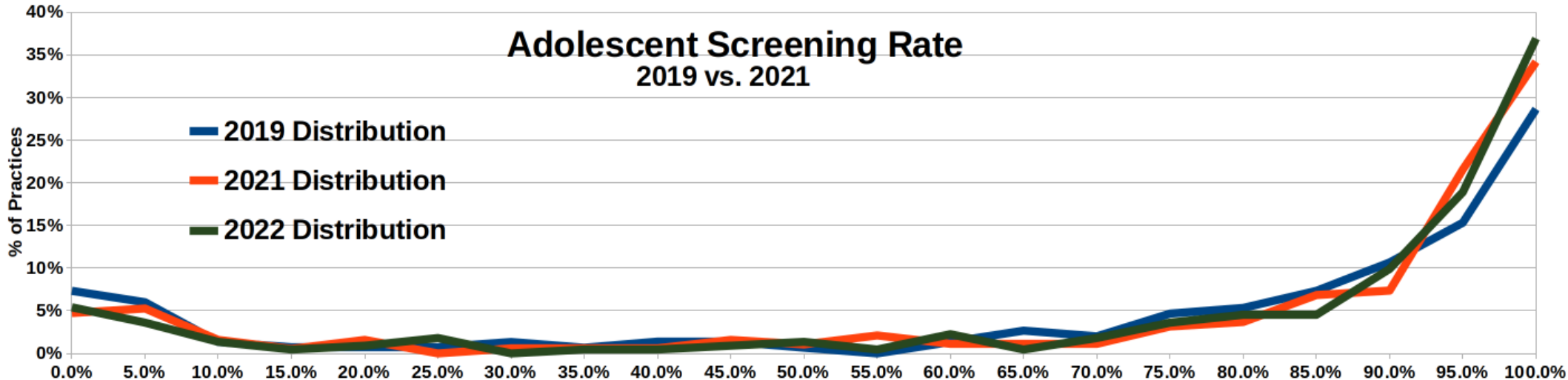
## How to calculate:

Divide the number of active adolescents (11-21) who have had a well visit and developmental screening in the past year by the total number of adolescents with a well visit. Screening CPTs include 96110/1, 96127, 99420, G8510, G8431, or G0444.

$$\begin{aligned} &1,000 \text{ (screened adolescents)} / 2,000 \text{ (adolescents)} \\ &= 50\% \text{ coverage} \end{aligned}$$

# Developmental Screening Rate - Adolescents

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	.4%	62.9%	71.7%	87.1%	95.4%	98.6%
2021	5.8%	73.3%	75.8%	91.8%	96.1%	98.1%
2021	8.4%	75.1%	77.5%	91.9%	96.3%	98.2%



# Developmental Screening Rate - Infants

## What it measures:

The percentage of active 1 year old patients who have received a developmental screening between the ages of 6-12mo.

## How to calculate:

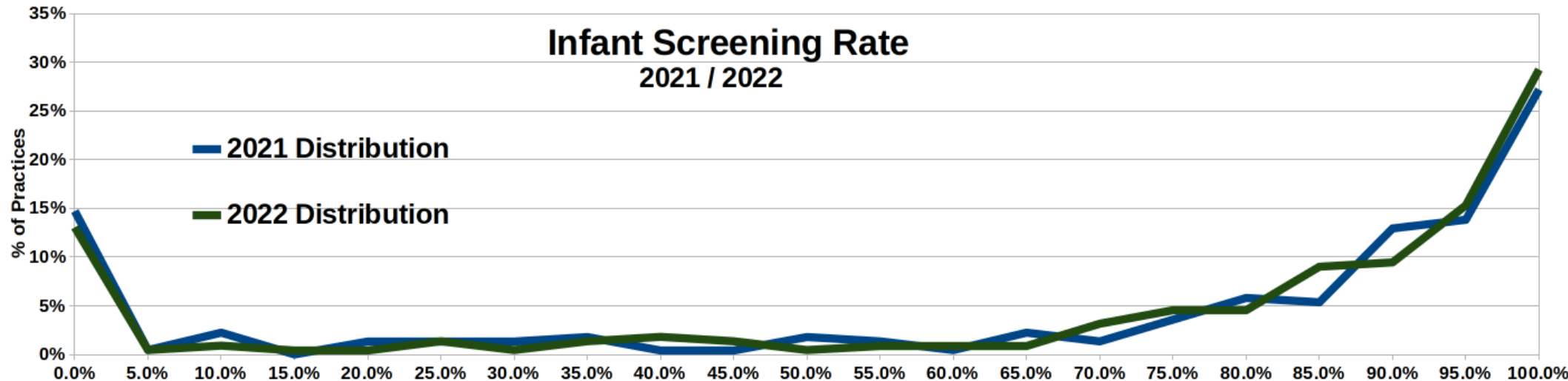
Divide the number of active patients (age 1 yr old) who have had a developmental screening between the ages of 6-12mo by the total number of active patients age 1 year old. Screening CPTs include 96110/1, 96127, 99420, G8510, G8431, or G0444.

$$\begin{aligned} &1,000 \text{ (screened infants)} / 2,000 \text{ (infants)} \\ &= 50\% \text{ coverage} \end{aligned}$$



# Developmental Screening Rate - Infants

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2021	0%	49.3%	68.9%	88.0%	97.0%	99.0%
2022	0%	66.4%	71.6%	87.0%	96.4%	98.9%



# Fluoride Varnish

## What it measures:

The percentage active 1-5yo patients who have received a recommended fluoride treatment at their well visits.

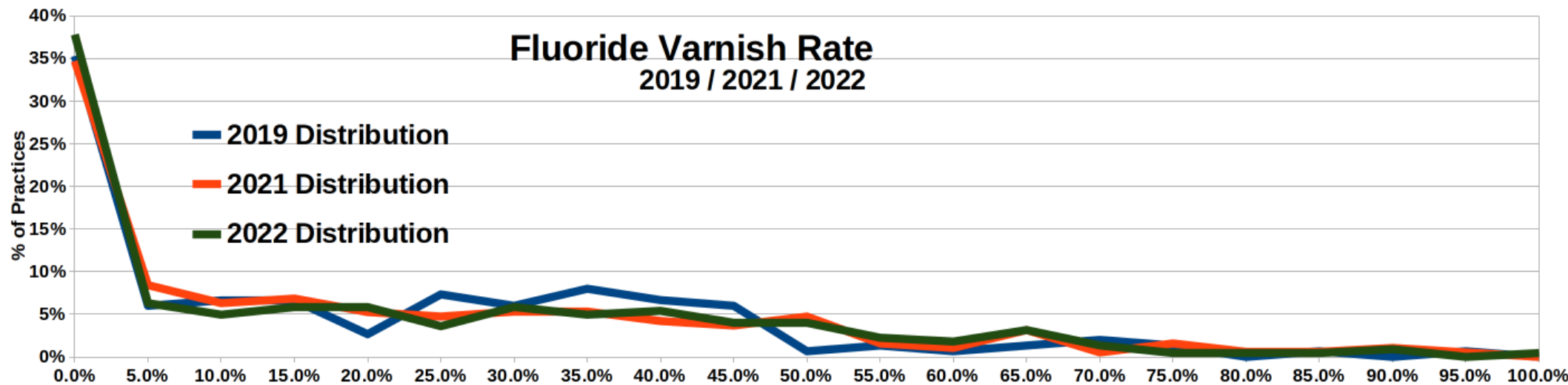
## How to calculate:

Divide the number of active 1-5yo patients who had a well visit in the last year by the number of active 1-5yo who had a well visit in the last year *and* received a fluoride varnish. Fluoride CPTs include 99188 and D1206.

$$\begin{aligned} &1,000 \text{ (treated patients)} / 2,000 \text{ (patients)} \\ &= 50\% \text{ coverage} \end{aligned}$$

# Fluoride Varnish

Year	10th Percentile	25th Percentile	Mean	Median	75th Percentile	90th Percentile
2019	0%	0%	19%	12%	32%	43%
2021	0%	0%	20%	11%	33%	52%
2022	0%	0%	20%	12%	35%	51%



# HEDIS® Weight Assessment and Counseling Measure,

## What it measures:

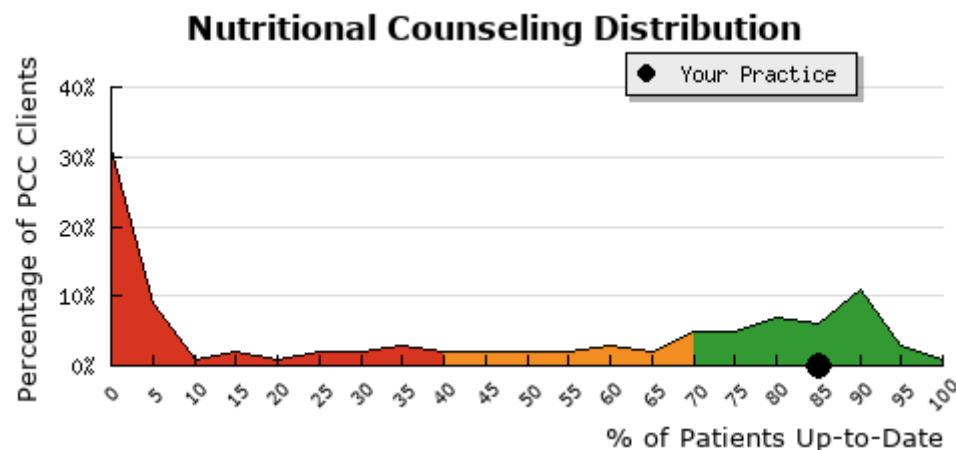
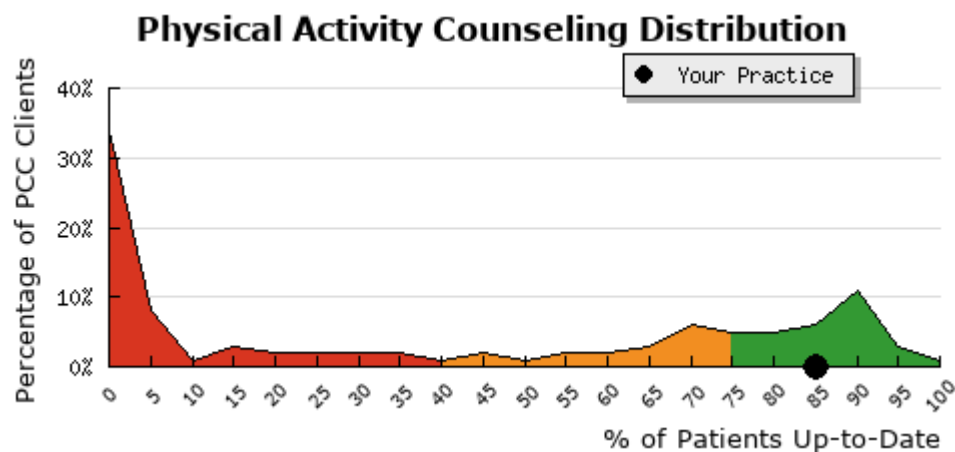
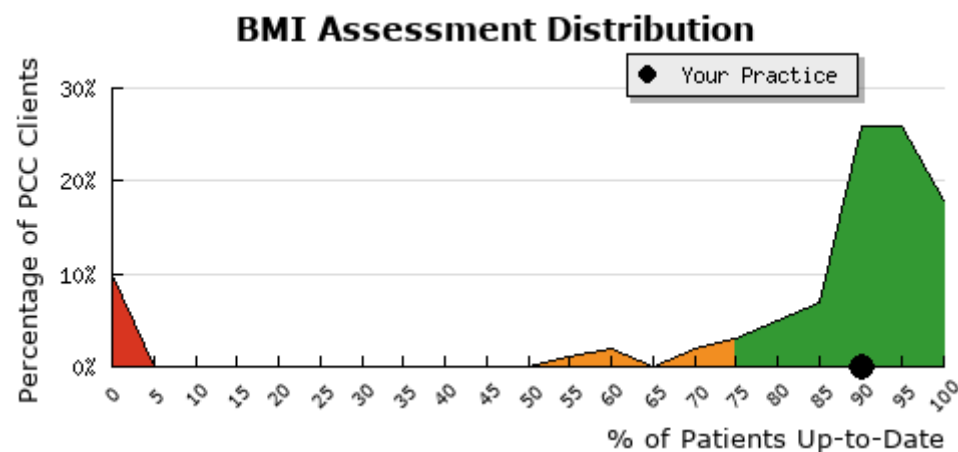
This set of three measures indicates how often your practice assesses body mass index (BMI) for your 3-17 year-old patient population and, separately, how often you provide nutritional and physical activity counseling to these patients.

## How to calculate:

Divide the number of active 3-17yo patients who have recorded BMIs and nutritional and physical activity counseling.

$$\begin{aligned} &1,000 \text{ (patients with BMIs)} / 2,000 \text{ (patients)} \\ &= 50\% \text{ coverage} \end{aligned}$$

# HEDIS® Weight Assessment and Counseling Measure



# References

For more information on this subject, see the following resources:

- AAP's Section on Administration and Practice Management (SOAPM)
- Medical Group Management Association (MGMA)  
<http://www.mgma.com/industry-data/all-data-resources/benchmarking-tools-from-mgma-surveys>
- Confessions of a Pediatric Practice Management Consultant  
(chipsblog.com)

# Comments? Questions?

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