SOA Provider Risk Sharing Boot Camp for Health Actuaries

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- -**Do not** discuss prices for services or products or anything else that might affect prices
- -**Do not** discuss what you or other entities plan to do in a particular geographic or product markets or with particular customers.
- -**Do not** speak on behalf of the SOA or any of its committees unless specifically authorized to do so.
- -**Do** leave a meeting where any anticompetitive pricing or market allocation discussion occurs.
- -**Do** alert SOA staff and/or legal counsel to any concerning discussions
- -**Do** consult with legal counsel before raising any matter or making a statement that may involve competitively sensitive information.

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Introductions

- Colleen Norris
- Jason McEwen
- Dr. Thom Walsh
- Stoddard Davenport

Introduce yourself!

- Your name
- Where you live and the company you work for
- Your favorite activity outside of work
- What are you hoping to gain from this boot camp?

Housekeeping

- The boot camp concept
- Stop us to ask questions throughout. This is meant to be an interactive learning session.
- Consider anti-trust and anti-collusion laws in your conversations with one another
- Cell phones = vibrate or off
- There will be breaks, but feel free to step out

What will be covered in this boot camp?

Day 1

- Overview: big issues in provider risk sharing
- A detailed dive into ACOs
- A presentation from Dr. Walsh on ways to achieve the triple-aim in practice

Day 2

- Attribution techniques and issues
- Population health and quality
- Network considerations
- Tying it all together

Overview

What are the big issues in provider risk sharing?

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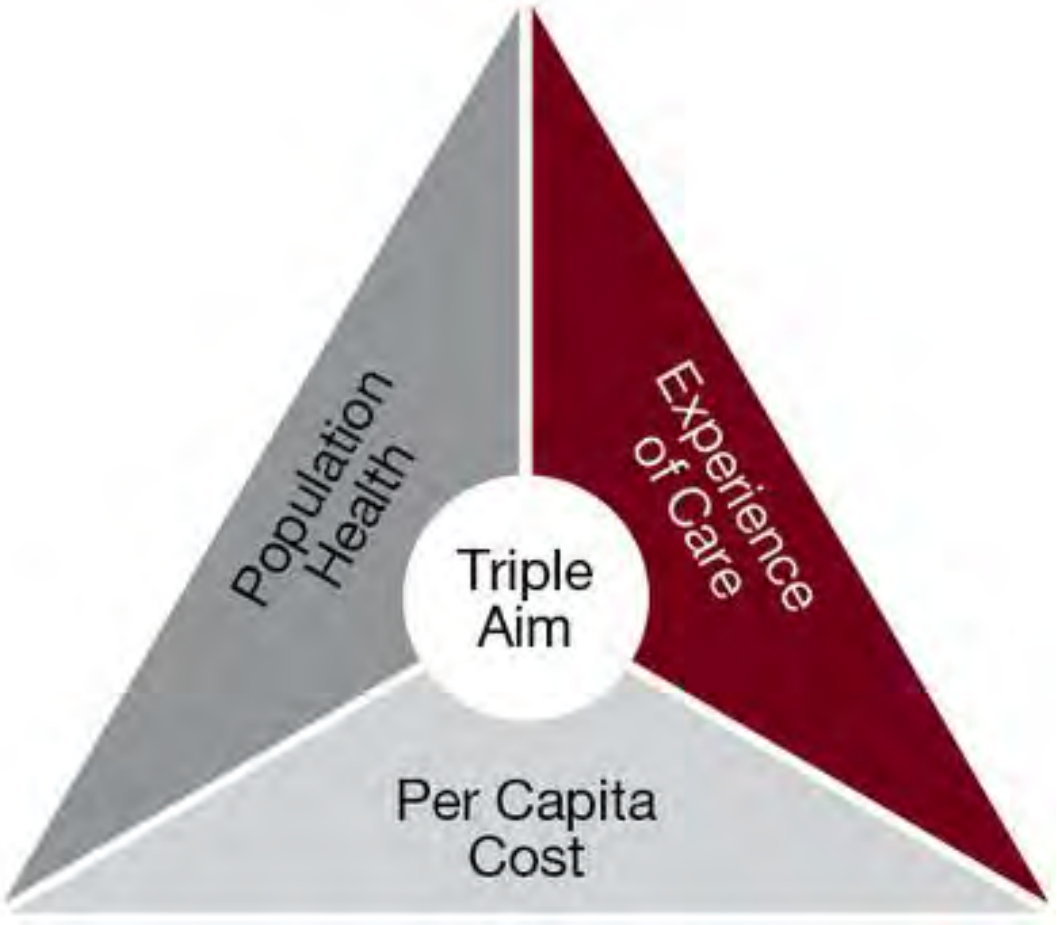
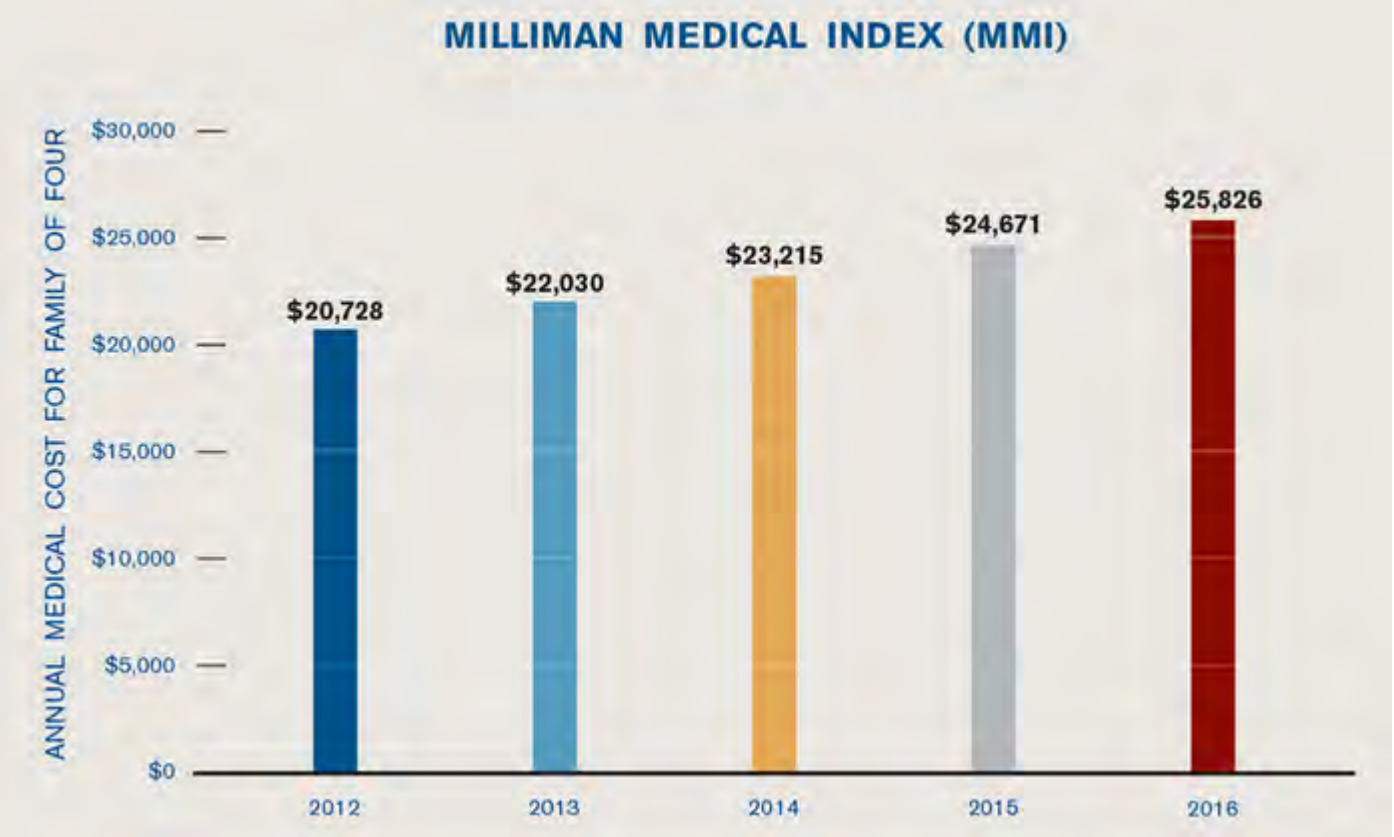
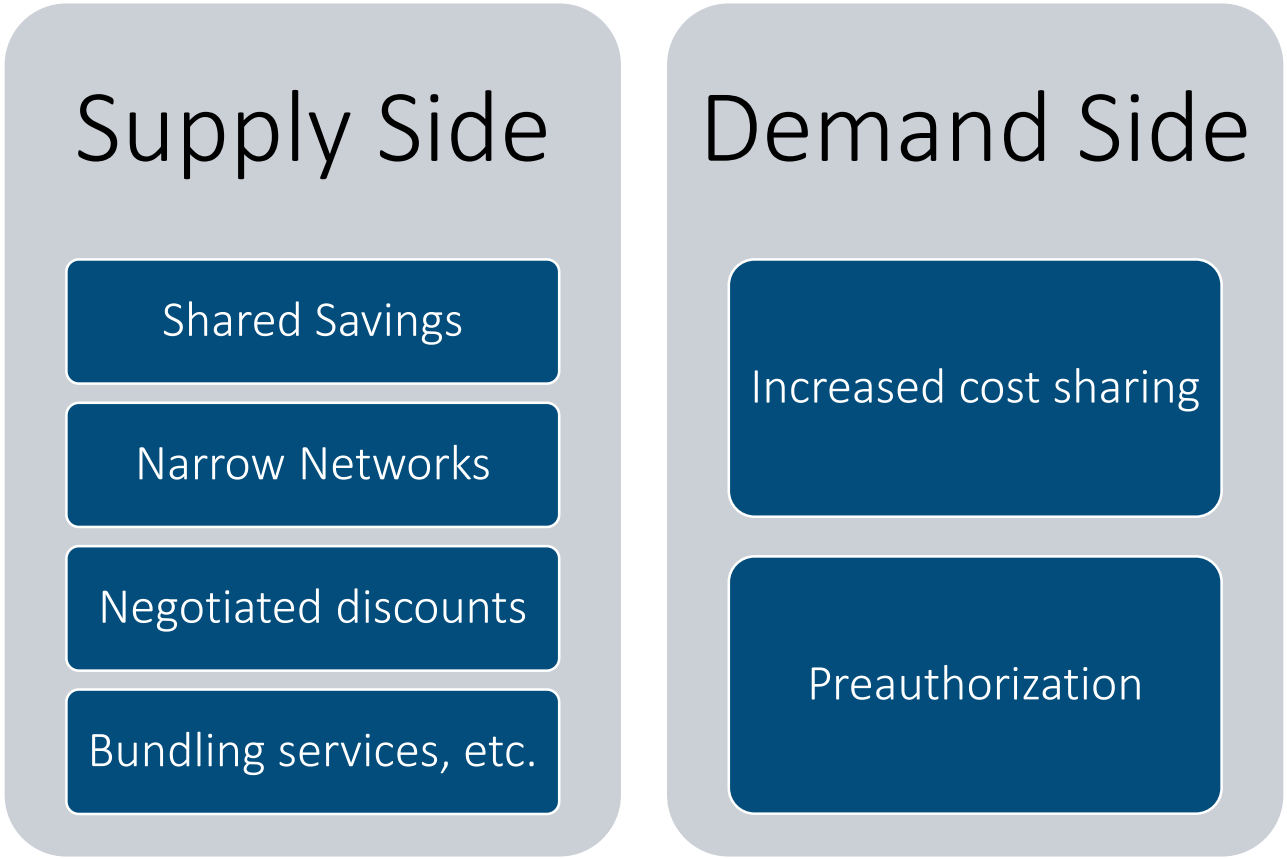
What is provider risk sharing and why is it happening?



What is provider risk sharing and why is it happening?



Approaches to reducing paid costs



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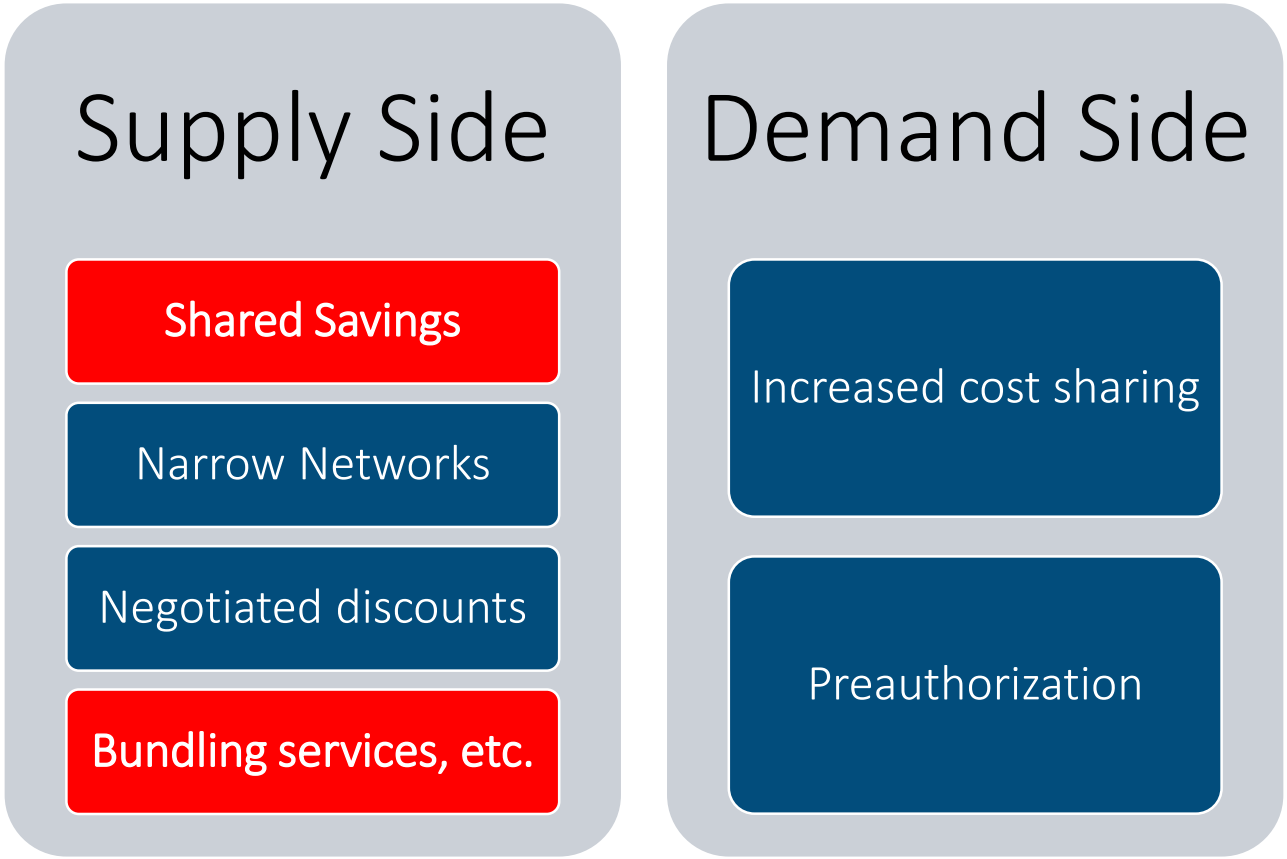
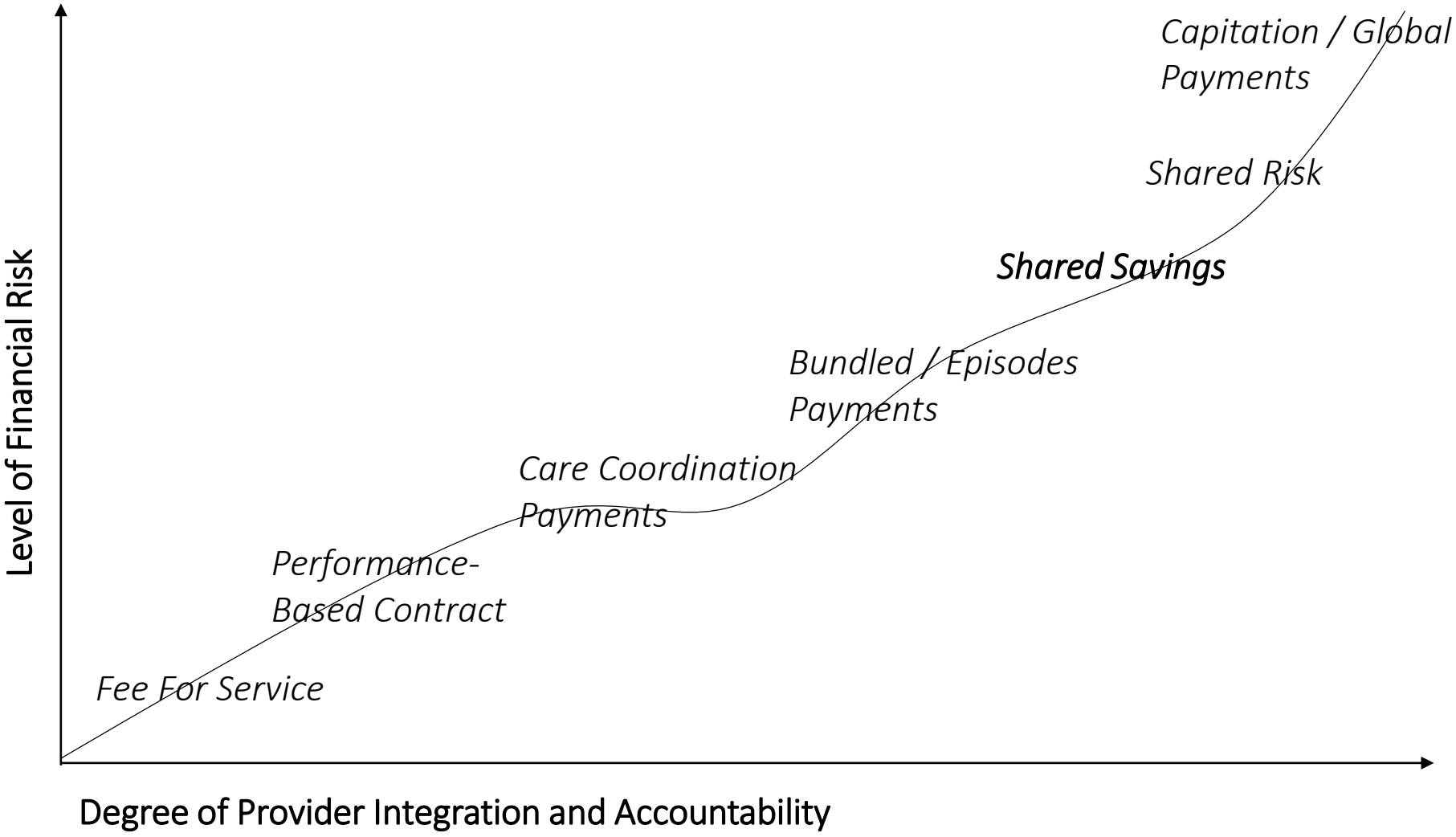


Provider Risk Spectrum



What are the big conceptual issues in the provider risk sharing space?

What is the population being measured?

How will success be enabled?

How will success be determined and measured?

What are the financial benefits and risks to the providers?

What is the state of provider risk sharing in 2018?

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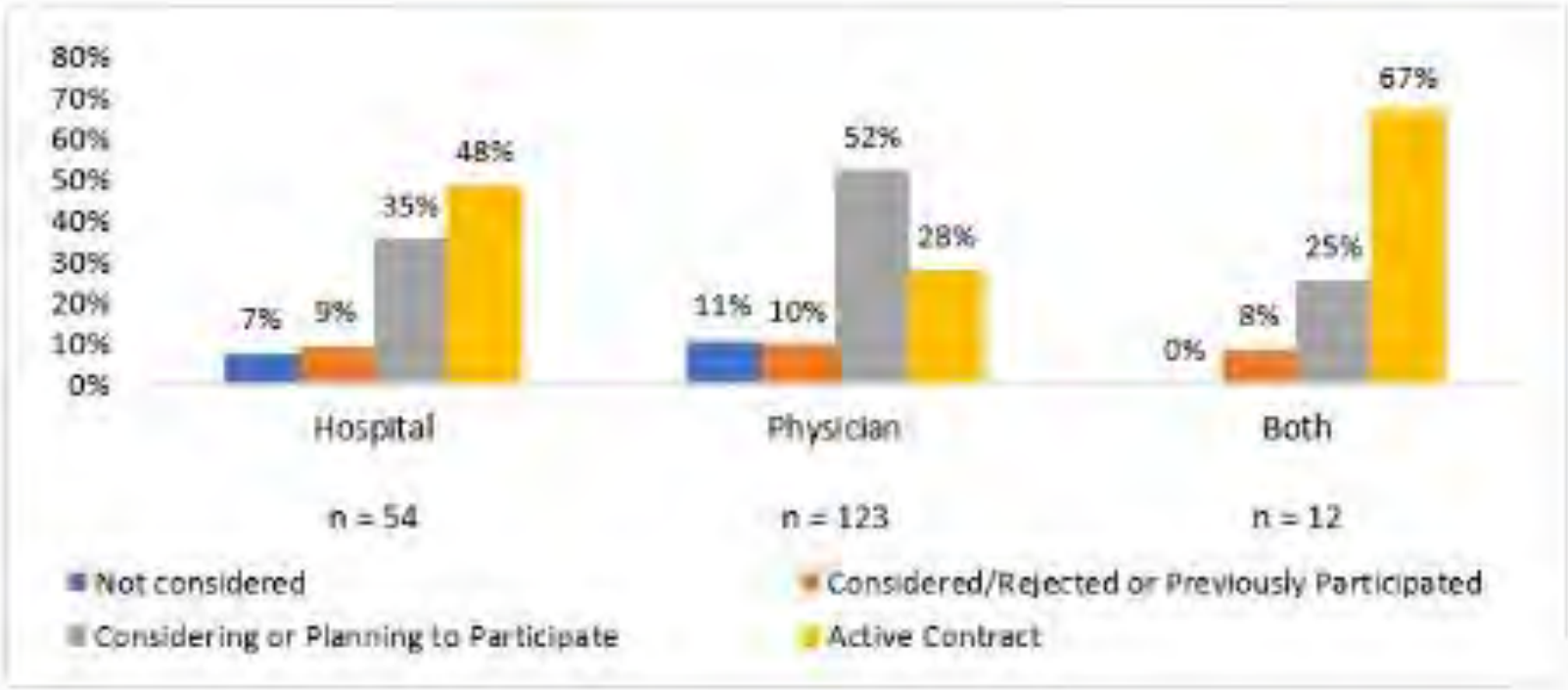
Field	Values	ACO Survey (n=215[1])	ACO Database (n=936)
Contract Type[7]	Medicare***	78.1%	59.7%
	Commercial***	44.2%	49.0%
	Medicaid***	7.4%	8.3%
ACO Lives	<10,000 Lives	17.2%	23.3%
	10,000-50,000 Lives	57.2%	56.9%
	50,001-100,000 Lives	14.9%	11.9%
	>100,000 Lives	10.7%	7.9%
Provider Type	Physician Group-Led	65.1%	66.7%
	Hospital-Led	28.4%	26.4%
	Both	6.5%	6.9%
CMS ACO Programs	MSSP***	70.2%	51.1%
	NGACO*	8.4%	4.8%
	CEC**	0.0%	3.9%
Region[7]	North East	24.7%	23.2%
	South	36.3%	34.5%
	Midwest	23.3%	21.7%
	West	15.8%	20.2%

Source: 2017 Annual ACO Survey conducted by the National Association of ACOs

Plans for Shared Savings with Risk by ACO Type



Source: 2017 Annual ACO Survey conducted by the National Association of ACOs

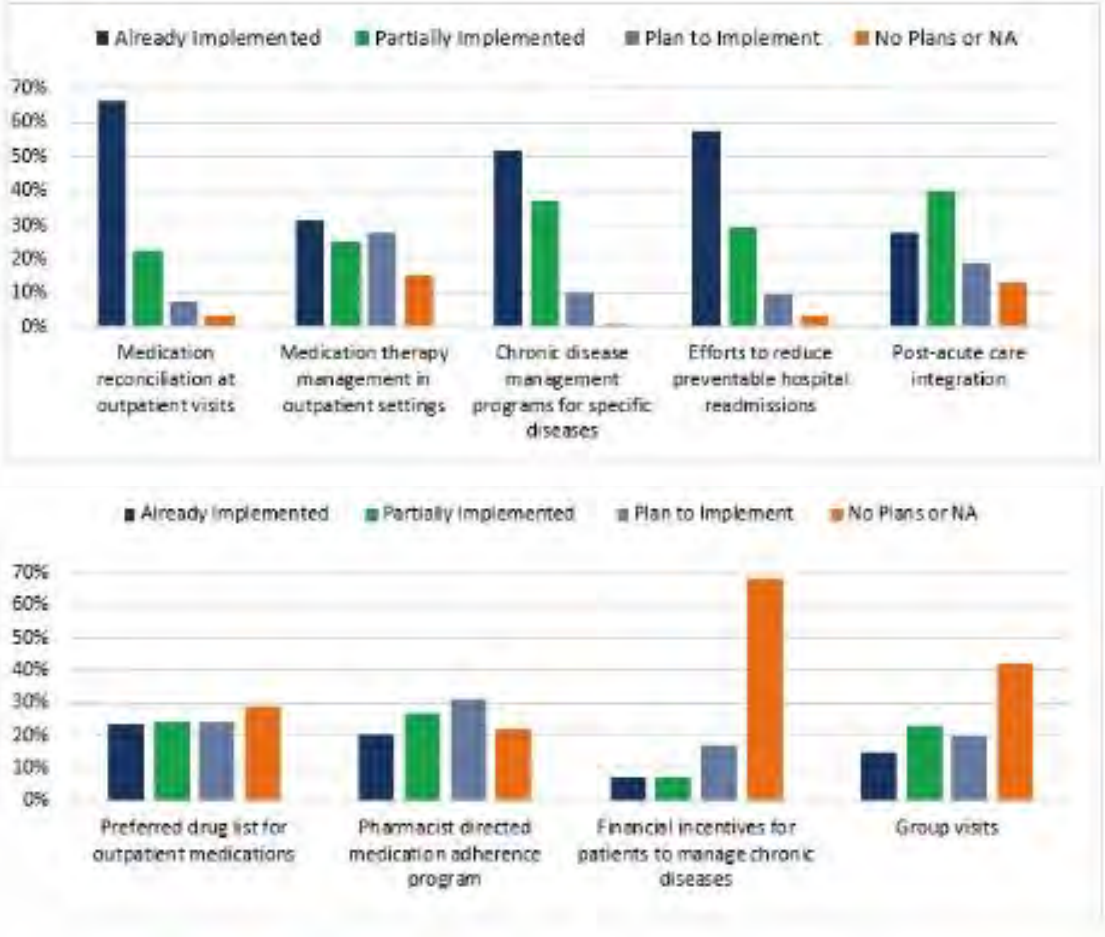
Plans for Shared Savings with Risk by MSSP Start Date

Source: 2017 Annual ACO Survey conducted by the National Association of ACOs

Participation across multiple shared risk arrangements

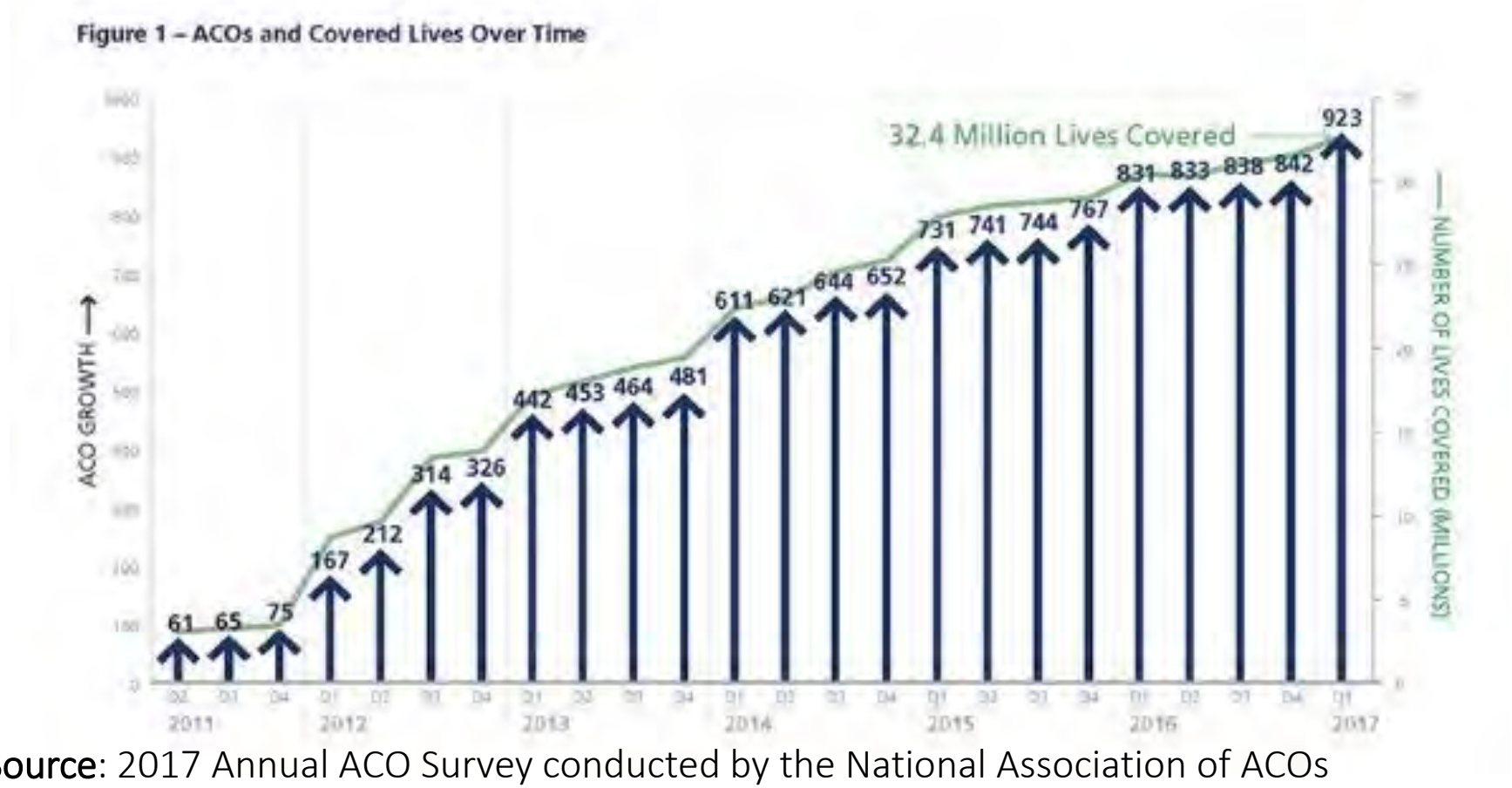
Source: 2017 Annual ACO Survey conducted by the National Association of ACOs

Most and least implemented population health measures



Source: 2017 Annual ACO Survey conducted by the National Association of ACOs

What are the most common ways in which risk is being shared with providers?



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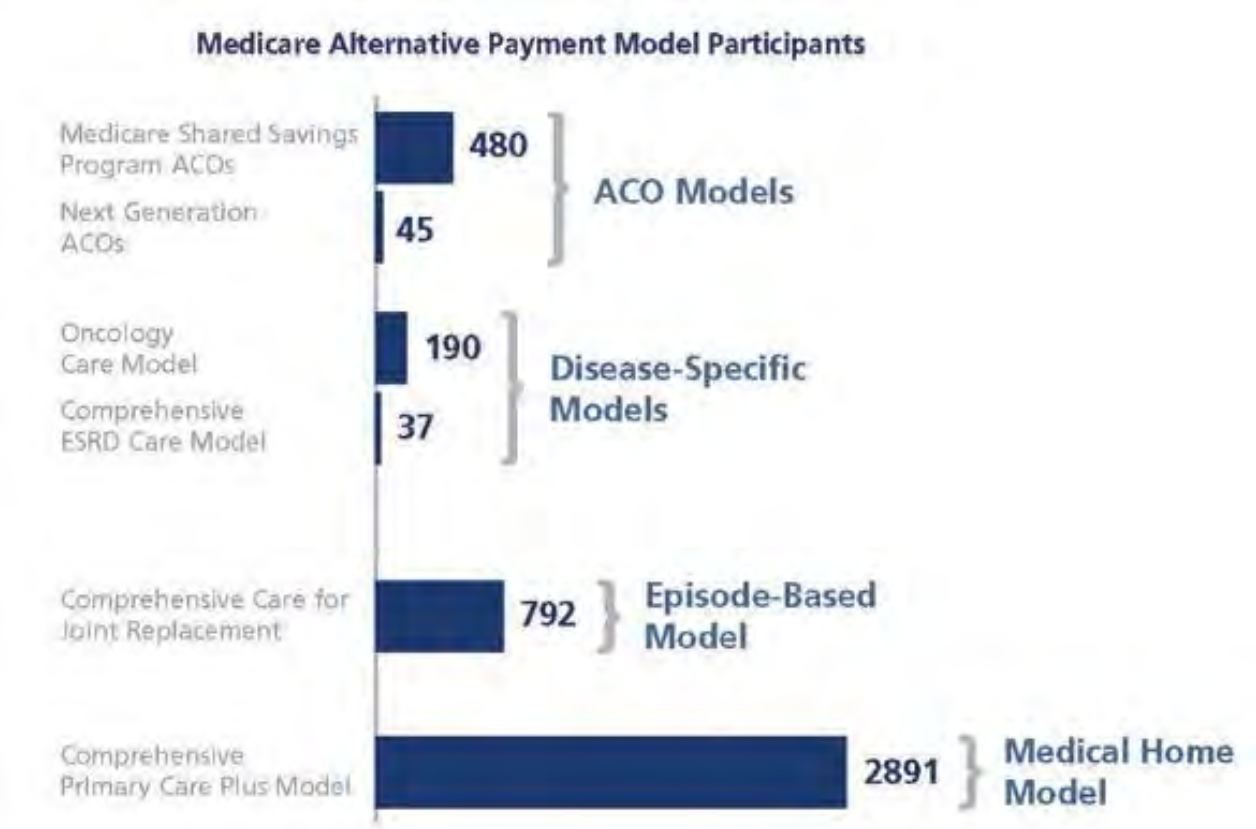

Source: 2017 Annual ACO Survey conducted by the National Association of ACOs

Why is this such an important space for actuaries?

Insurance Risk carved out to providers

Major concepts we will cover in this boot camp

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Key framework for thinking through provider risk sharing arrangements

1. What is the population being measured, and what is the ability for providers to meaningfully impact these individuals?
2. How will success be determined?
3. What are the financial incentives for providers to modify their behavior?

Key topics in population health management

Accountable Care Organizations

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What is an accountable care organization?

When groups of health care providers (such as doctors or hospitals and hospital systems) are responsible for both the total cost and the quality of care for a group of patients, they focus on activities like reducing unnecessary tests and improving communication between providers. That is good news for patients who get better care. And good news for everyone who pays for health care—freeing up resources to be better spent on things that matter most.

- Dartmouth Institute

For the purposes of this discussion, we will define an ACO loosely as follows:

1) Patients are aligned with a provider or provider group.

2) The provider or provider group is accountable for the total cost of care for the patient.

3) If total cost of care for aligned patients falls below a target, the payer and provider group will share in savings.

History and purpose of ACOs

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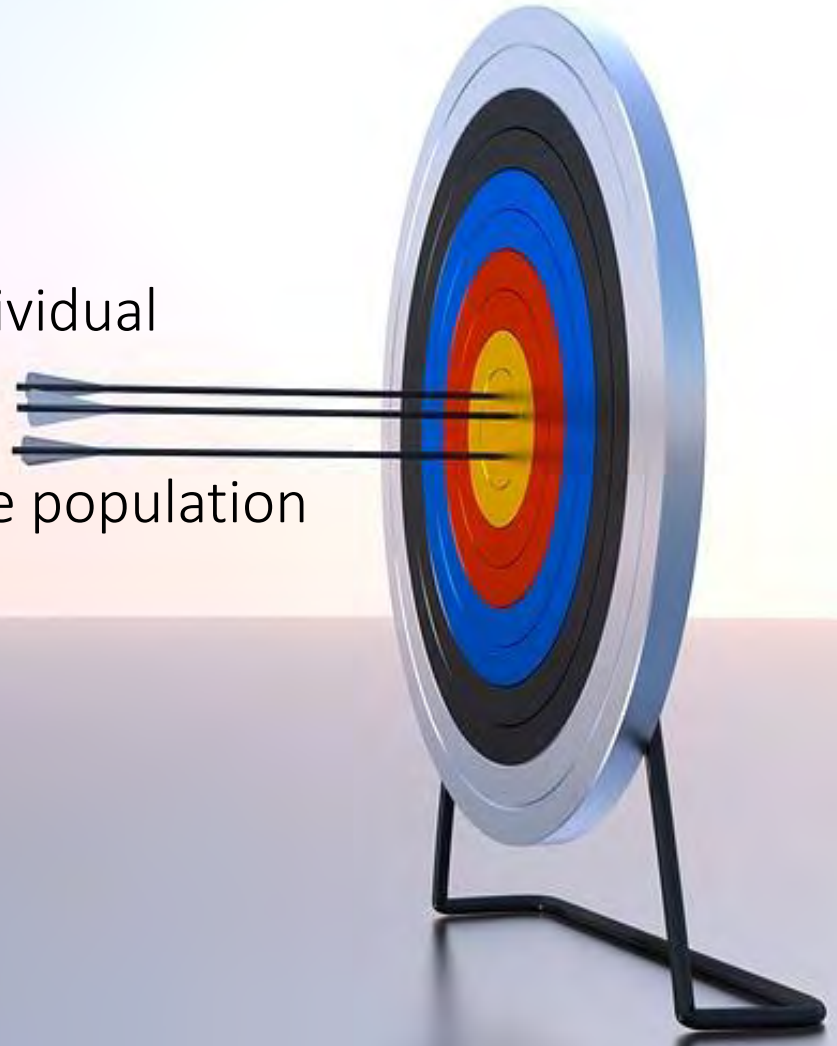
Triple Aim

- Better care for the individual
- Lower costs per capita
- Improved health of the population



History of ACOs

- Elliot Fisher first coined the term “Accountable Care Organization” in 2006 during a meeting with MedPAC
- ACO model was codified into law within the ACA in 2010
- Pioneer Model (CMMI) was first Medicare ACO in January 2012, and MSSP (CMS) started in April 2012

The longer history of ACOs…

- In the 90s, HMOs and MCOs provided capitation to providers.
- Capitation in the 90s was seen as a partially failed experiment because (among other reasons):
  - Some providers were to small to absorb that level of risk and / or the capitation rate failed to keep pace with the cost of providing services.
  - Patients were not used to care being managed.
  - Some providers took the capitation payments and then rationed care as a way to make a profit.

Medicare ACOs – A History

- Pioneer ACO (2012 – 2016)
- Medicare Shared Savings Program (2012 – current)
- Next Generation ACO (2014 – 2020)

Define the population

Attribution, and other alignment approaches

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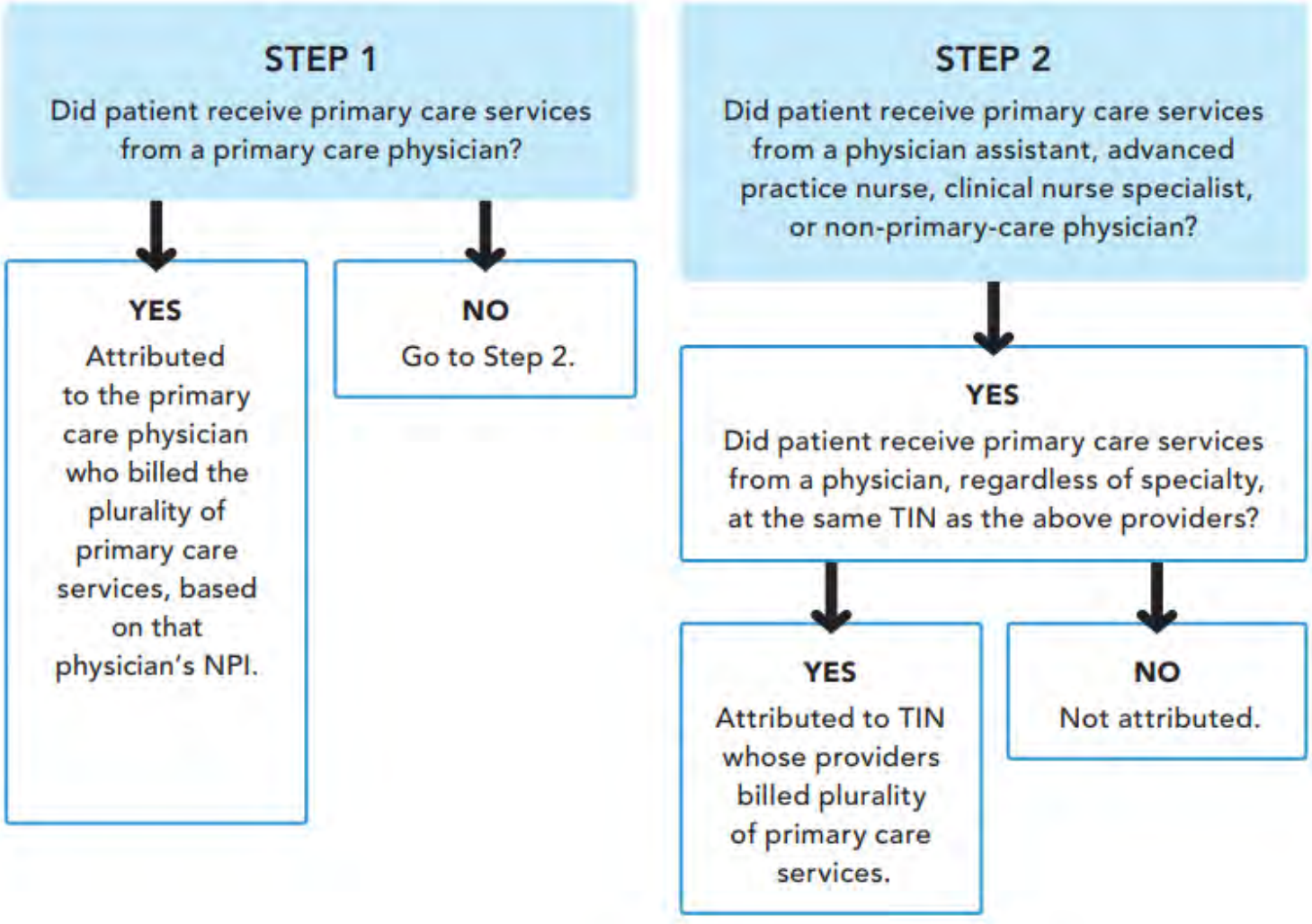
Attribution

- Providers will be held accountable for the patients they are attributed
- Important to attribute in a manner that allows the providers to have control over the costs assigned to them

Identifying the provider

- Claims based approach
- What provider types are eligible?
  - Who to include as a Primary Care Physician?
  - For example, should endocrinologists count as a PCP for patients with Diabetes?
  - How do specialists come in? What about mid-levels?
- What metric to determine the primary doctor?
  - Plurality of visits
  - Plurality of costs
- Election-based PCPs

Medicare's Two-Step Approach



Medicare Attribution Quiz

- Saw Dr. Kirby last year for a Medicare annual wellness visit, two chronic disease visits, and one acute visit.
- She has also seen her gynecologist (Dr. Li) for well-woman exams in the past two years.
- She saw Dr. Kirby twice this year for a chronic disease visit and an acute visit.
- After Dr. Kirby disclosed his plans to retire, she established care with a new family physician, Dr. Mendoza. She has since come in for a cold and scheduled her annual wellness visit.

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Attributed to Dr. Kirby

Medicare Attribution Quiz – The Sequel

- Sees her family physician, Dr. Prativadi, only when she is sick but periodically calls for health advice.
- She normally sees her gynecologist (Dr. Li) once a year for a well-woman exam but did not have a physical the last two years because of her schedule.
- Her most recent contact with any type of clinician was an urgent care visit for a urinary tract infection.

Medicare Attribution Quiz – The Sequel

- Sees her family physician, Dr. Prativadi, only when she is sick but periodically calls for health advice.
- She normally sees her gynecologist (Dr. Li) once a year for a well-woman exam but did not have a physical the last two years because of her schedule.
- Her most recent contact with any type of clinician was an urgent care visit for a urinary tract infection.

Not Attributed

Time Frame for Attribution

- Retrospective attribution
  - Assigned population is based on services that happened *during* the performance year
- Prospective attribution
  - Assigned population is based on services that happened *prior to* the performance year
- Hybrid approach
  - Prospectively assigned population, with the ability for a patient to transition PCPs within the year and have split attribution of costs
- Member-selected PCP
  - Form of prospective attribution

Retrospective Attribution

- Pros
- Cons

Prospective Attribution

- Pros
- Cons

Hybrid Approach

- Pros
- Cons
- Poll
  - [Option A] The assignment change should be effective the date that the patient reaches the plurality of care with a new provider
  - [Option B] The assignment change should be effective retrospective to the first visit with the new provider

Member-Selected PCPs

- Pros
- Cons

Items to consider when selecting the timing

- What is the difference between the two groups of patients?
- How will the providers react to each option?
- How will the timing impact the financial measurements?
  - E.g. Trend, risk adjustment

Ways attribution can (and will) fail

- Issues with TIN based attribution
  - Moving providers in and out of TIN
- Example: # of cancer docs increased dramatically
- Providers who are in multiple TINs

Define the benchmark

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Defining the benchmark

Performance year experience

vs.

Benchmark Target

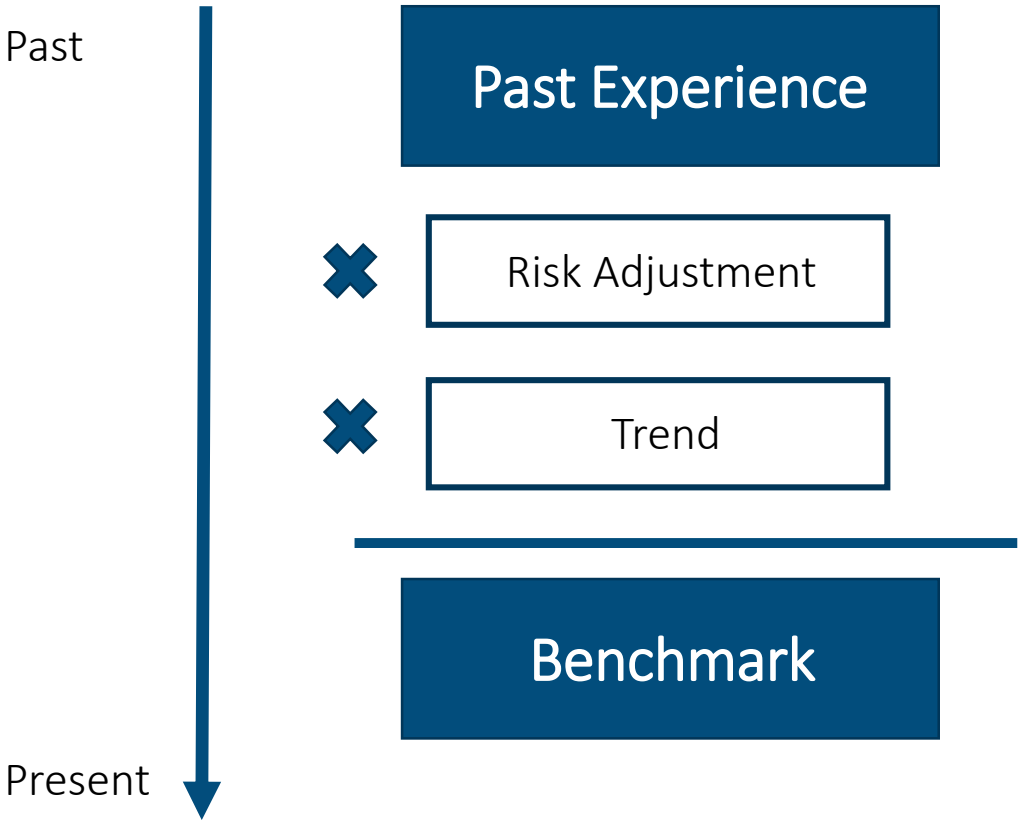
?

How do you create a valid counterfactual?

- What are CMS's approaches to setting up a benchmark in the Medicare ACO programs?
- Common approaches used by commercial and other ACOs.
- Innovative approaches to setting up a benchmark.

Throughout, we will apply our actuarial skill set to poke holes in each approach, and consider pros and cons from both the perspectives of the provider and payer.

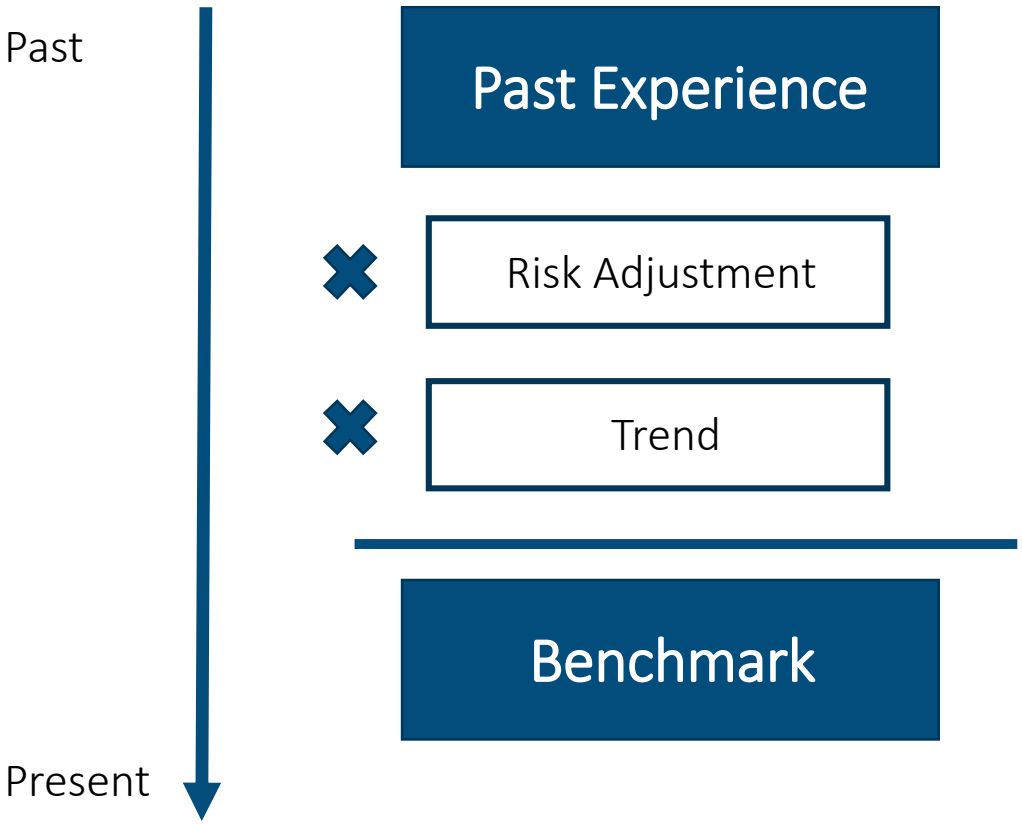
Basic approach



Major Considerations:

- How many years of past experience do you use?

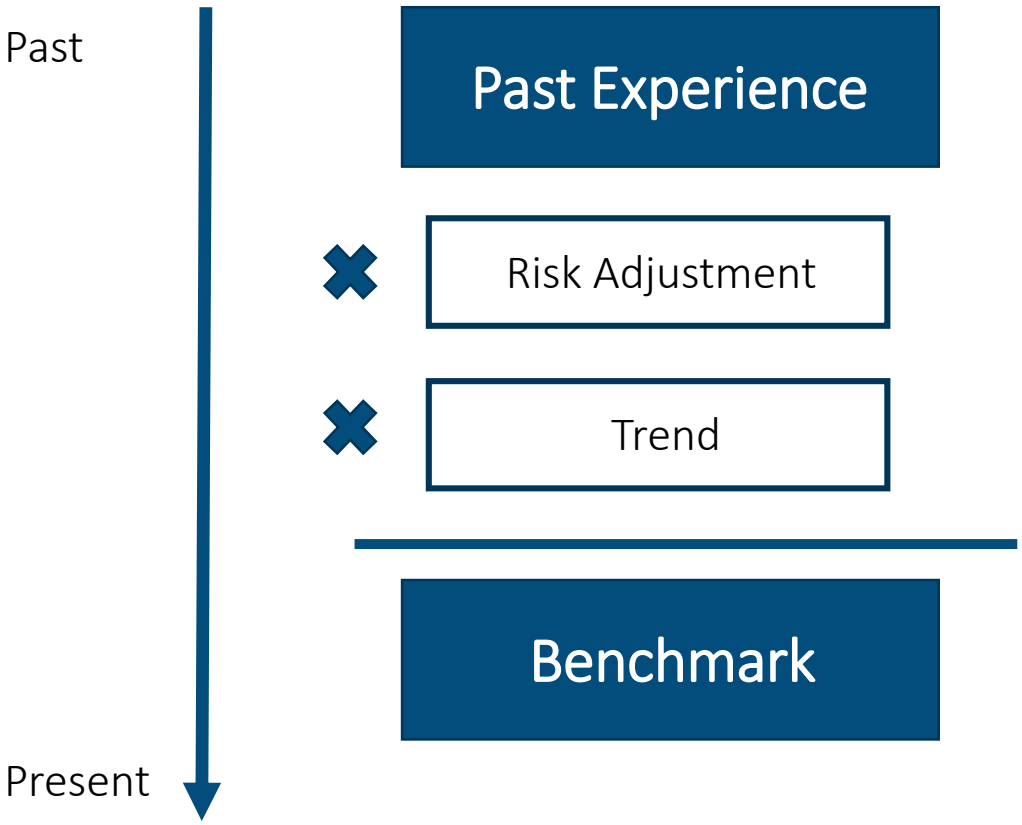
Basic approach



Major Considerations:

- How many years of past experience do you use?
- How often do you update or roll forward the experience year(s) used?

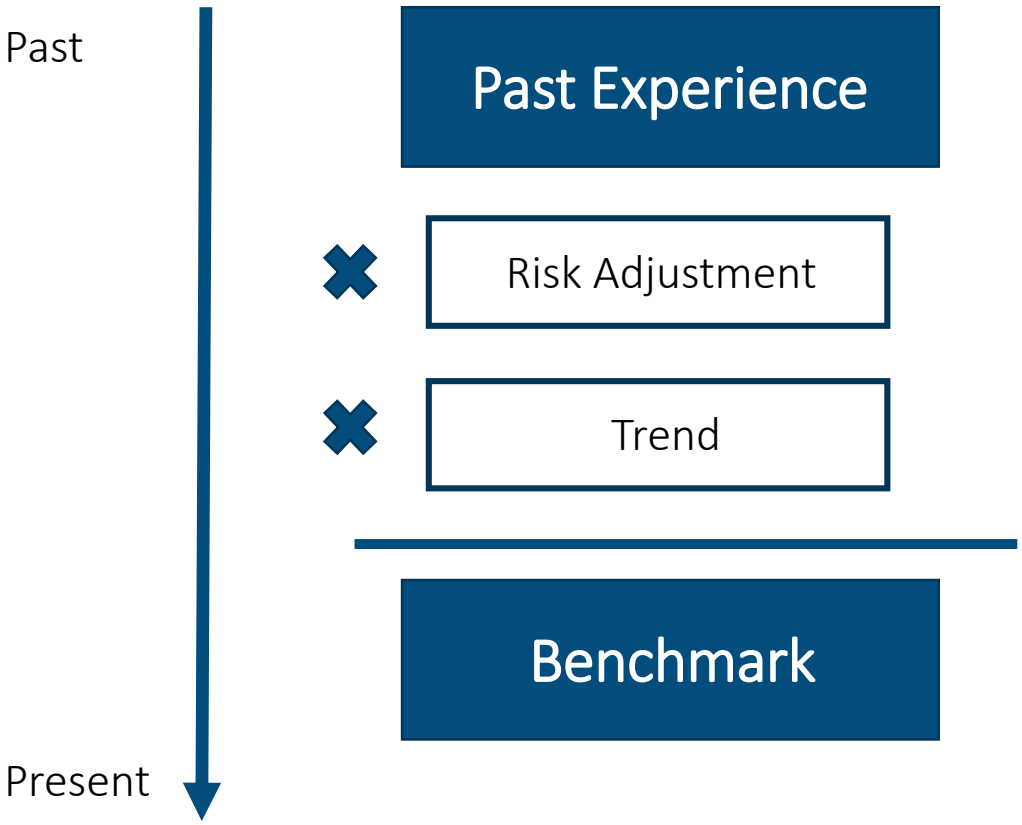
Basic approach



Major Considerations:

- How many years of past experience do you use?
- How often do you update or roll forward the experience year(s) used?
- Exactly what experience (providers / patients) is included in the past experience used in the benchmark?

Basic approach



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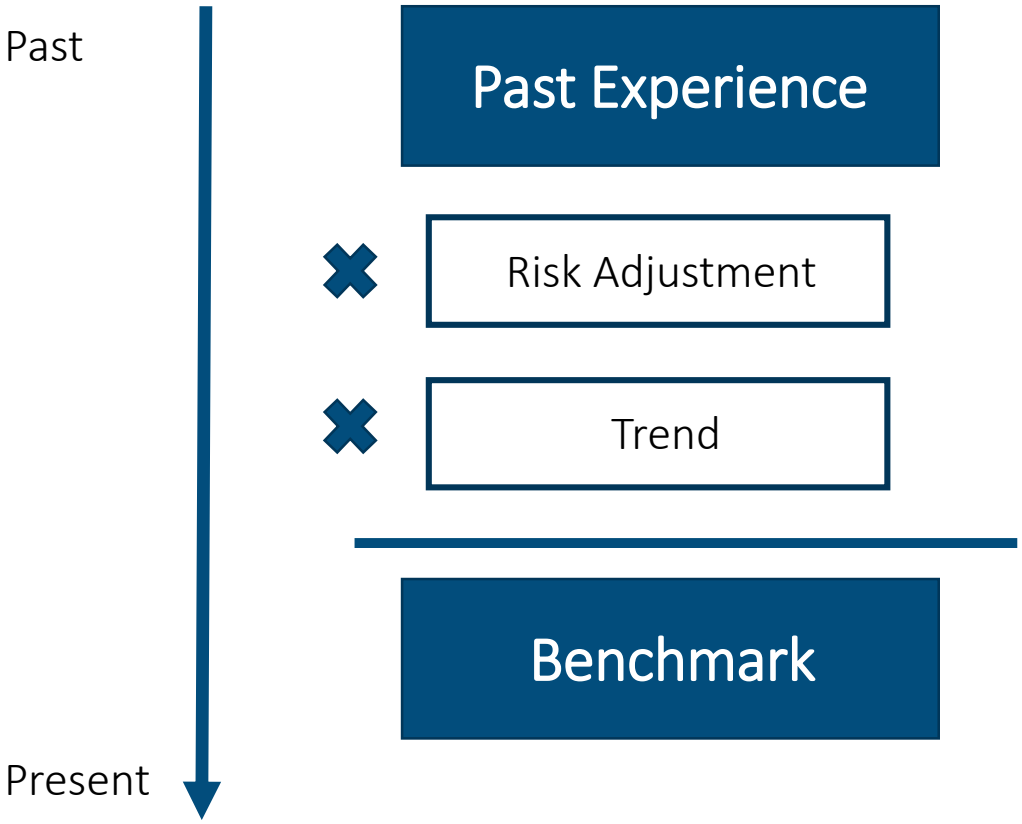
- Exactly what experience (providers / patients) is included in the past experience used in the benchmark?
- **How do you set up reasonable and accurate risk adjustment?**

Basic approach



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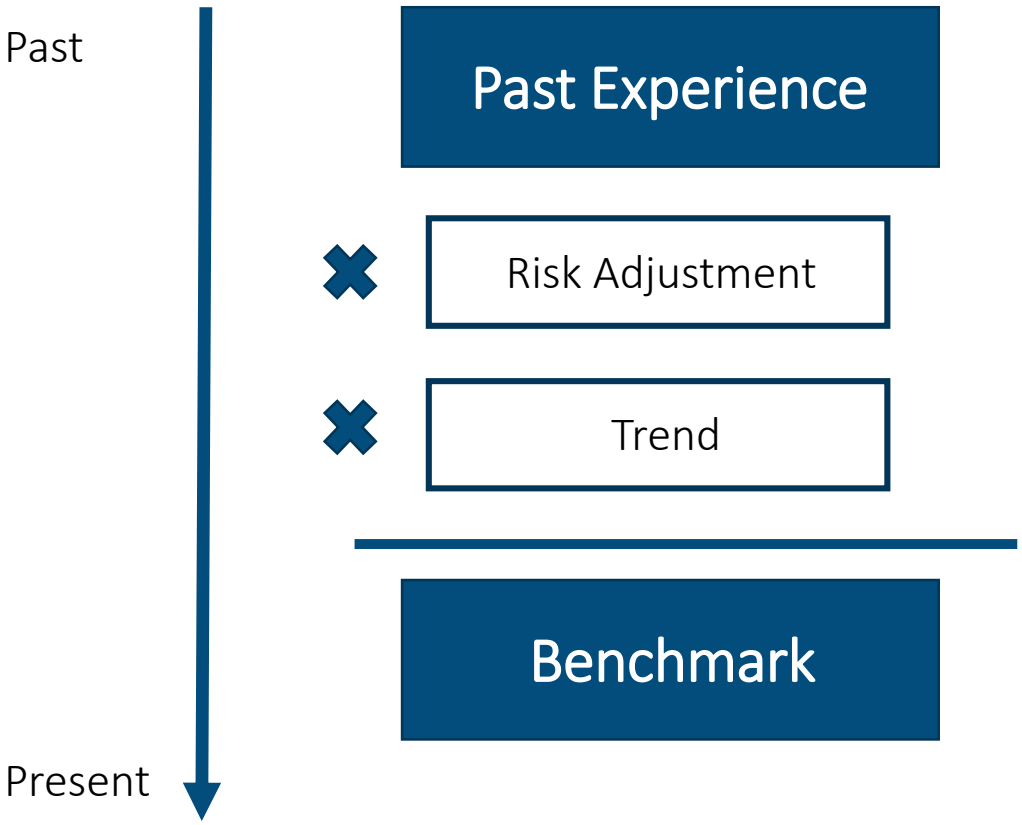
- How often do you update or roll forward the experience year(s) used?
- Exactly what experience (providers / patients) is included in the past experience used in the benchmark?
- How do you set up reasonable and accurate risk adjustment?
- **How do you normalize for coding improvement?**

Basic approach



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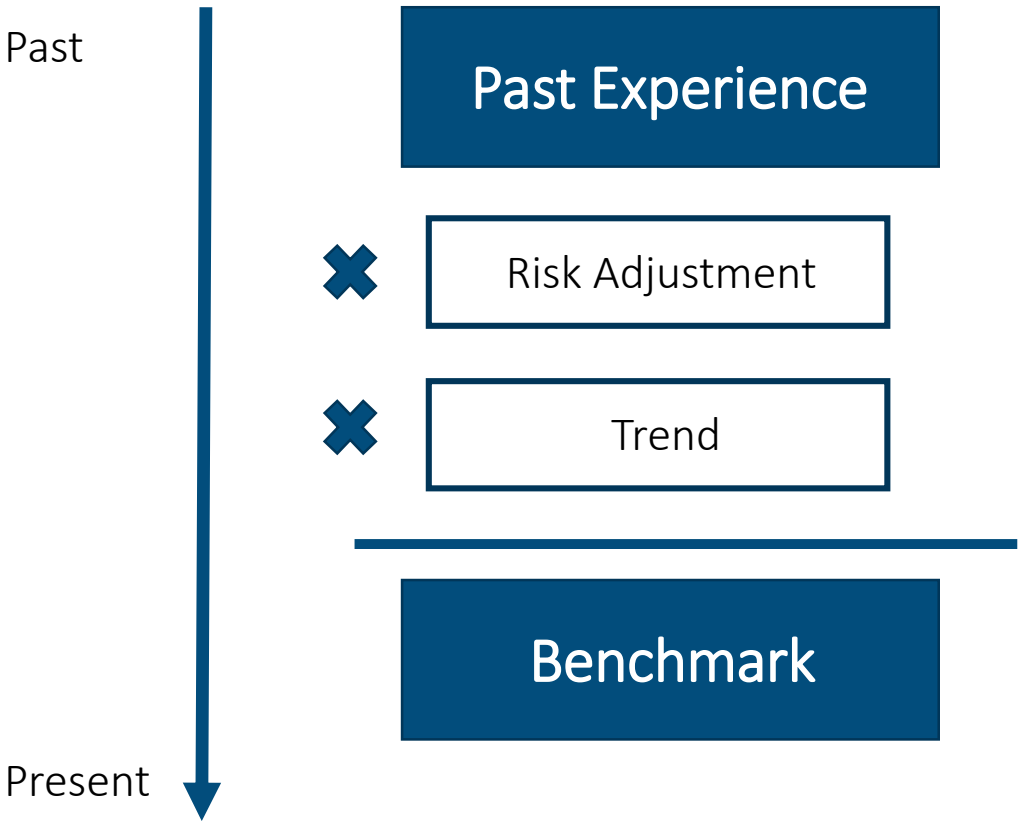
- Exactly what experience (providers / patients) is included in the past experience used in the benchmark?
- How do you set up reasonable and accurate risk adjustment?
- How do you normalize for coding improvement?
- **How do you set a reasonable trend?**

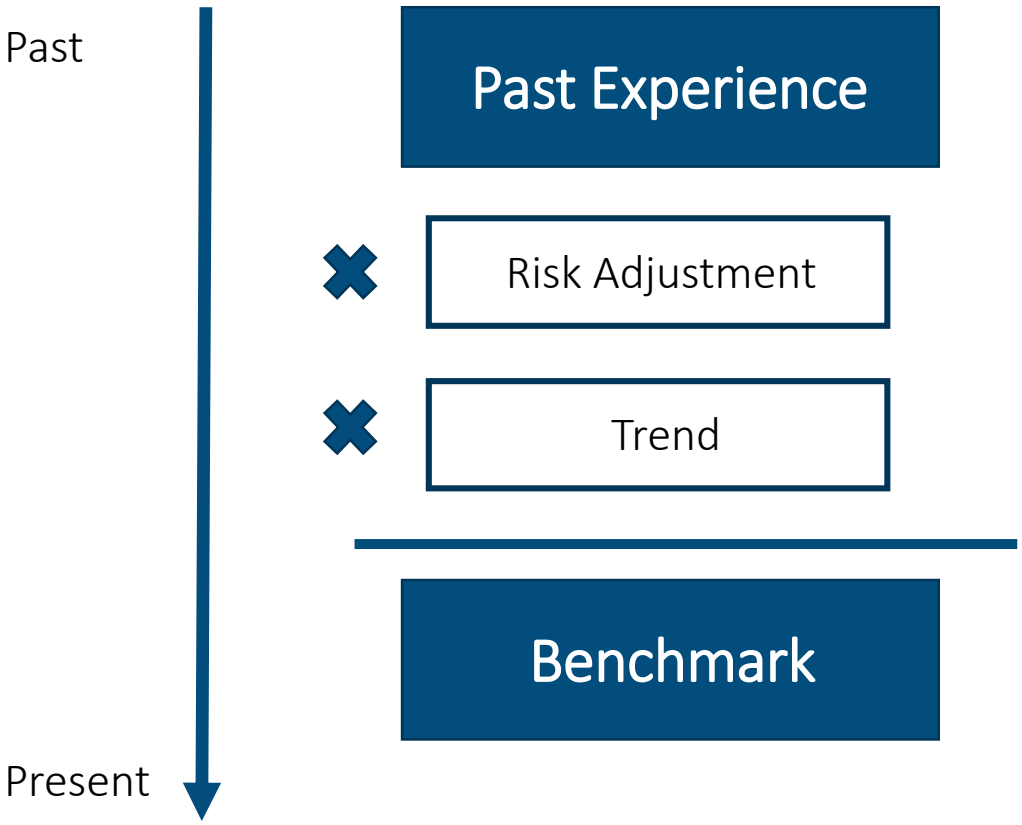
Basic approach



Major Considerations:
…continued

- How do you keep ACOs from having to compete against their past performance?

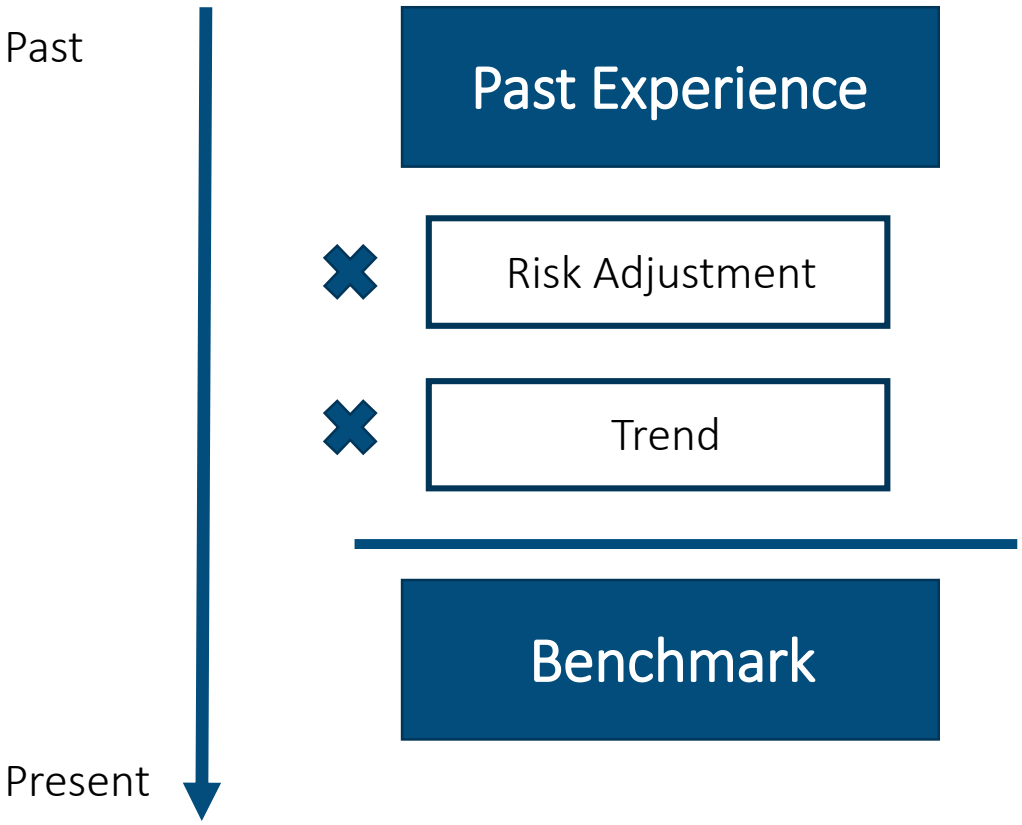
Basic approach



Major Considerations:
…continued

- How do you keep ACOs from having to compete against their past performance?
- How do you make this structure appealing for ACOs or providers who are already reasonably efficient?

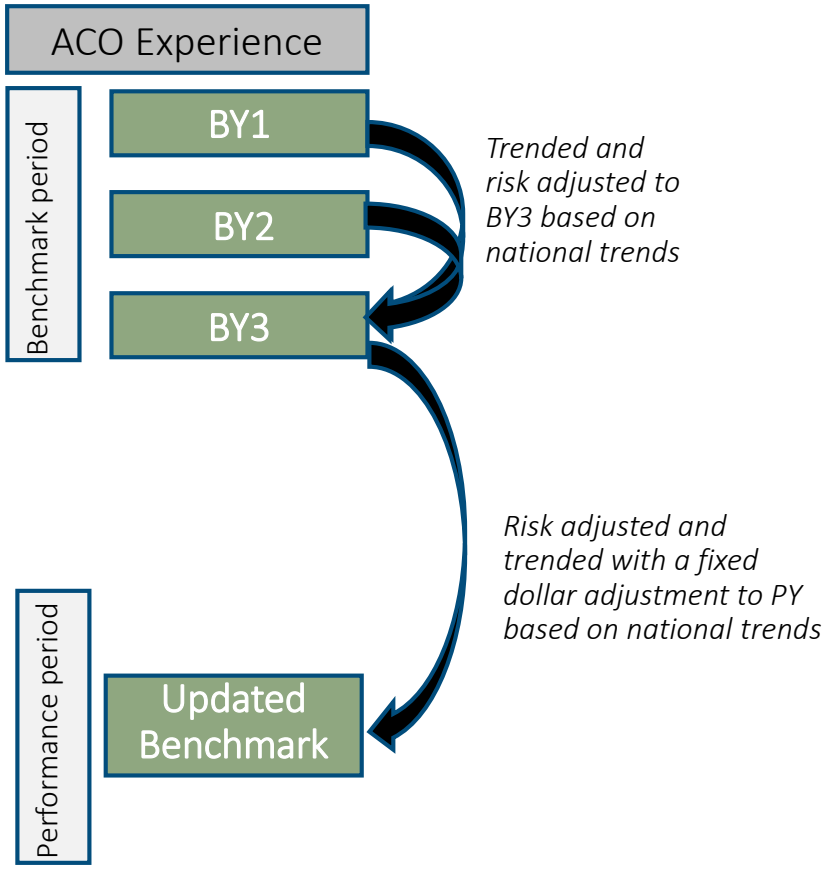
Basic approach



Major Considerations:
…continued

- How do you account for outliers and individuals with very high claims?
- How do you keep ACOs from having to compete against their past performance?
- How do you make this structure appealing for ACOs or providers who are already reasonably efficient?
- **How do you make this feel fair and transparent for providers?**

Medicare's approach – How many years of past experience?



How many years of past experience do you use?

In the MSSP program, CMS has chosen to use a blend of 3 years of experience data as the basis for the benchmark.

Using multiple years of experience as the basis for a benchmark

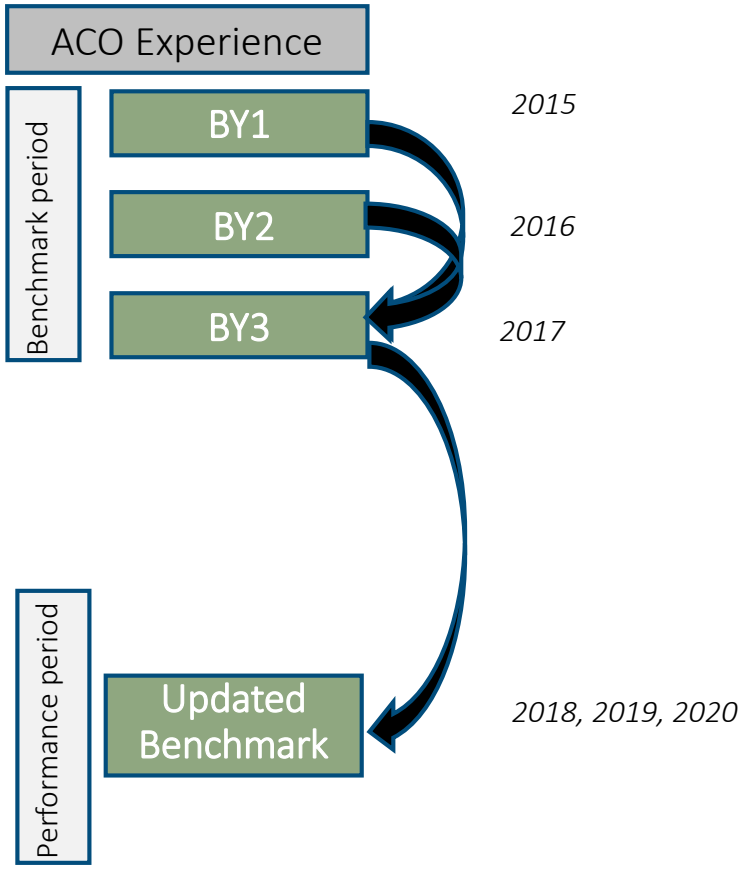
Pros

- Using multiple years can help smooth out single-year variations in costs or risk scores.
- Using multiple years of data provides additional credibility, especially for smaller ACOs.

Cons

- The first year of data in the benchmark period will be quite dated even at the beginning of the first performance period.
- Need to worry about how to accurately trend within the benchmark period.

Medicare's approach - MSSP



How often do you update or roll forward the experience year(s) used?

In the MSSP program, CMS has chosen to update the experience years when the contract is renewed.

To date the experience years have been updated every 3 years. Starting in mid-2019, the experience years used as the basis for the benchmark will be updated every 5 years.

Updating the experience years used infrequently *(such as every 3 – 5 years)*

Pros

- Infrequent rebasing means that there is theoretically more stability in the benchmark, since annual updates will only account for another year of trend and risk adjustment.
- The ACO needs to worry about competing against their past performance less often.

Cons

- The benchmark experience is very dated by the end of the contract period, and may or may not reflect current practice patterns.
- Over time the effects of chosen trend become are amplified.

Medicare's approach - MSSP

Exactly what experience is included in the past experience used in the benchmark?

In the MSSP program, CMS applies the same attribution logic used in the performance period to each of the benchmark years. The individuals identified in the attribution algorithm are used as the basis for the benchmark experience.

Alignment and performance periods in MSSP

Alignment Period (beneficiary identification)

Performance Period (expenditures)

Prospective Assignment - MSSP Track 1+ | Track 3

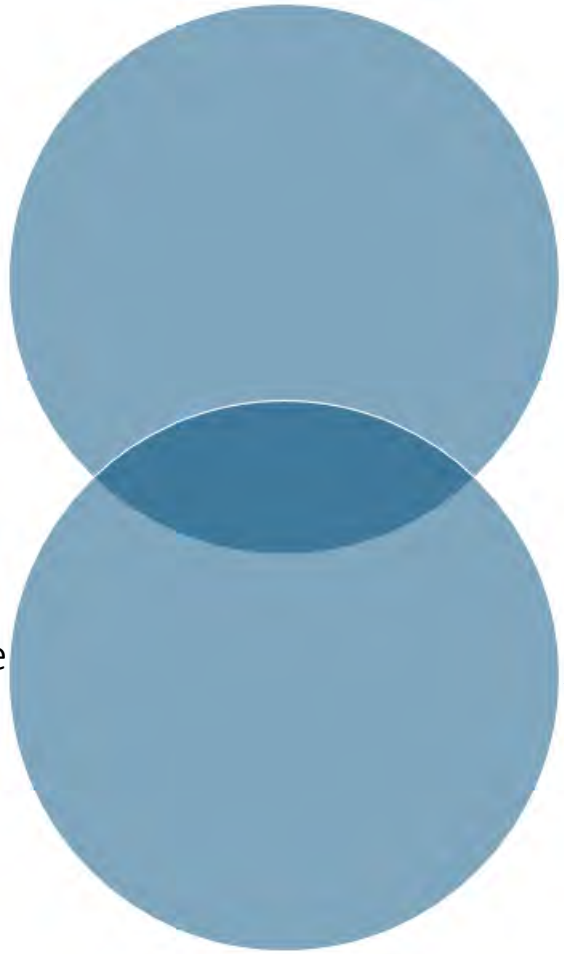
Period	Category	Prior to Benchmark Years								Benchmark Years (BY)												Performance Years (PY)											
		2 Yrs Prior to BY1				1 Yr Prior to BY1				BY1				BY2				BY3				PY1				PY2				PY3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Benchmark Period	Beneficiary Assignment Period																																
	Expenditure Period																																
Performance Period	Beneficiary Assignment Period																																
	Expenditure Period																																

Retrospective Assignment - MSSP Track 1 | Track 2

Benchmark Period	Beneficiary Assignment Period																																
	Expenditure Period																																
Performance Period	Beneficiary Assignment Period																																
	Expenditure Period																																

SOURCE: Medicare Shared Savings Program Shared Savings and Losses and Assignment Methodology Specifications.pdf, version 5

How does this work in practice?



Benchmark Years

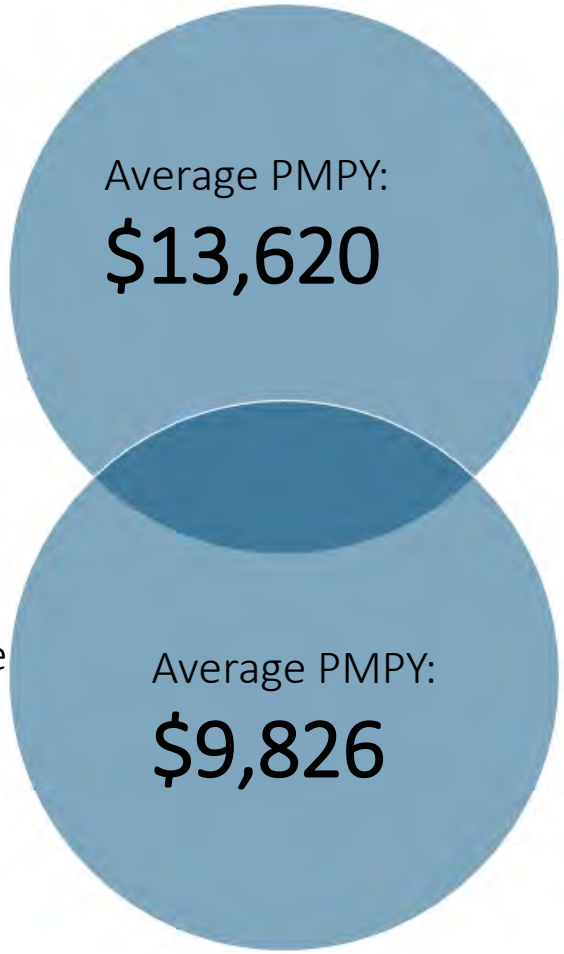
Performance Period

Patients who ***would have*** been assigned based on practice patterns in BY1, BY2, or BY3.

Assignment occurs at a provider tax identification number (TIN) level

Patients assigned based on practice patterns in the performance period (PY).

Changes in practice patterns



Provider TIN used to serve higher-risk and hospital-based patients.

Assignment occurs at a provider tax identification number (TIN) level

Provider TIN now serves average-risk members and no longer sees hospital-based patients.

Irregular attribution patterns

- Irregular attribution patterns happen most often with specialists or other secondary providers.
- If costs of the assigned population are significantly different than average, this can drive volatility in both the benchmark and performance year costs.
- This problem comes up most frequently with hospitalists.

Changes in practice size

- In the MSSP program, assignment happens at the TIN level. There is no mechanism to deal with a TIN that grows or shrinks in terms of the number of providers within it.
- This can cause unintended consequences if a TIN with higher or lower-than-average PMPY expenses expands or contracts.

Applying attribution logic in the benchmark period

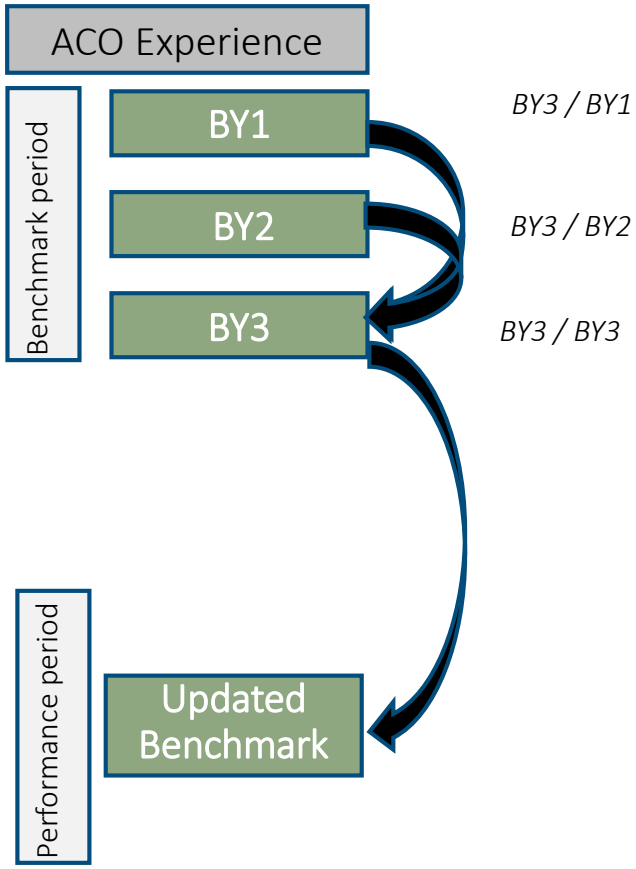
Pros

- Methodologically consistent

Cons

- Fails to account for changes in practice patterns.
- Fails to account for growth or contraction in a TIN

Medicare's approach – risk adjustment



How do you set up reasonable and accurate risk adjustment?

In the MSSP program, CMS uses the same prospective risk adjustment model that is used for Medicare Advantage.

CMS uses risk score ratios to adjust between benchmark years, and to date a complicated approach to risk adjust between BY3 and the performance year (PY).

Using the CMS prospective risk adjuster

- The CMS HCC risk adjuster has an r-squared value of just 12.5%*.
- By comparison, competitive concurrent commercial risk adjustment models have r-squared values of 60% - 70%.

These r-squared values are calculated at an individual level.

*** Source**: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/downloads/Evaluation_Risk_Adj_Model_2011.pdf

Risk adjusting between BY3 and the performance period – old approach

New members

- Use PY / BY3 risk ratio

Continuing members

- If PY / BY3 risk ratio is less than 1.0, use risk ratio
- If PY / BY3 risk ratio is greater than 1.0, multiply BY3 risk score by a “demographic factor”.

Risk adjusting between BY3 and the performance period – new approach

- For all beneficiaries, use the PY / BY3 risk ratio, but cap it at +/- 3%.

Risk adjusting the benchmark experience – old approach

Pros

- Use of prospective risk scores means that performance year risks scores are theoretically available part-way through the performance year.
- Risk score capping mechanism for continuing members limits incentives to up code and maximize risk scores.

Cons

- Use of prospective risk adjustment model means that risk scores are less accurate and cannot capture acute events that occur during the year.
- Risk score capping mechanism is opaque, and fails to account for legitimate increases in the risk score for continuing members.

Risk adjusting the benchmark experience – new approach

Pros

- Enables risk adjustment mechanism to capture legitimate increases in the morbidity of the continuing population.

Cons

- May incentivize some providers to put an increased focus on risk coding to hit the 3% cap.
- Over the duration of a 5 year contract, a corridor of +/-3% may not be sufficient to capture true changes in morbidity, especially if there are meaningful changes in practice patterns.

Medicare's approach – Risk Score normalization

How do you normalize for coding improvement?

In the MSSP program, CMS has chosen to normalize the risk scores to the national average.

National

Medicare Enrollment Type	2013	2014	2015	2016	% Change 2015 -> 2016
ESRD	1.018	1.006	1.044	1.075	2.97%
Disabled	1.032	1.027	1.097	1.116	1.73%
Aged/dual	1.607	1.590	1.682	1.691	0.54%
Aged/non-dual	0.946	0.940	0.992	1.001	0.91%

Medicare's approach – Risk Score normalization

National

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Aged/non-dual	0.946	0.940	0.992	1.001	0.91%

National Assignable

Medicare Enrollment Type	2013	2014	2015	2017	% Change 2015 -> 2017
ESRD	1.046	1.034	1.074	1.114	3.69%
Disabled	1.139	1.139	1.218	1.287	5.70%
Aged/dual	1.652	1.632	1.739	1.801	3.56%
Aged/non-dual	1.004	1.001	1.055	1.058	0.33%

Normalizing for coding improvement

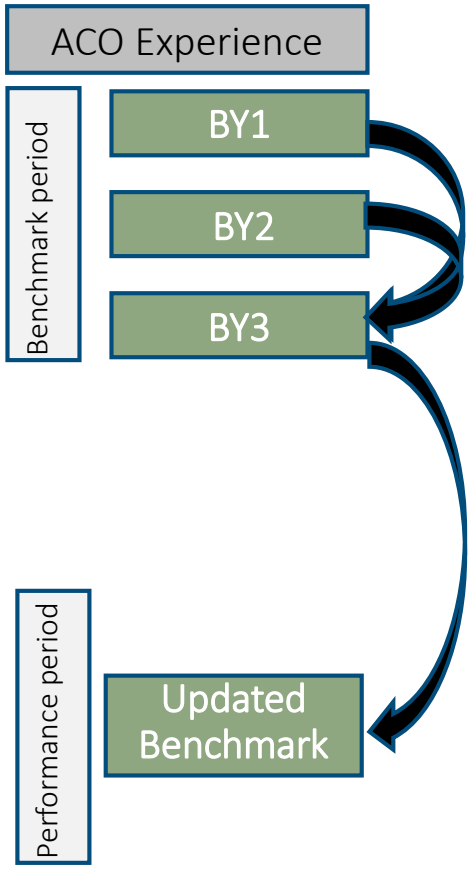
Pros

- Ensures that risk score ratios are properly normalized to be on a proper basis for comparison over time.
- Results in more accurate, neutral measurement for the payer.
- Mathematically consistent with trend.
- More protective for the payer.

Cons

- Since normalization factors for the performance period are not known until after the fact, ACOs have are uncertain in predicting their final benchmark.
- Since the margin of savings for ACOs is often low, small changes in the normalization factor can cause outsized effects.

Medicare's approach - Trend



How do you establish a reasonable trend?

In the MSSP program, CMS has tested using both national and regional trend.

Program start through 2016: National expenditures

National

Medicare Enrollment Type	2013	2014	2015	2016	Annualized Change 2015 -> 2016
ESRD	$73,727	$74,422	$74,299	$75,151	1.15%
Disabled	$8,177	$8,435	$8,765	$8,945	2.05%
Aged/dual	$14,857	$14,963	$15,355	$15,408	0.34%
Aged/non-dual	$7,968	$8,047	$8,362	$8,469	1.27%

Starting in 2017: National *assignable* expenditures

National Assignable

Medicare Enrollment Type	2013	2014	2015	2017	Annualized Change 2015 -> 2017
ESRD	$79,563	$80,529	$80,391	$81,813	0.88%
Disabled	$10,176	$10,573	$10,869	$11,494	2.84%
Aged/dual	$15,762	$16,005	$16,510	$16,999	1.47%
Aged/non-dual	$9,308	$9,486	$9,794	$10,251	2.31%

Phasing in starting in 2017 – regional expenditures

County	Number of assigned beneficiaries living in the county	Average PBPY expenditures of assignable beneficiaries living in county		
		2014	*2015*	*2016*
San Diego	35,000	$9,652	$10,126	$10,314
Orange	5,000	$10,069	$10,510	$10,652
Riverside	2,000	$9,730	$9,973	$10,244
Imperial	1,000	$8,587	$8,560	$9,097
Los Angeles	750	$9,972	$10,449	$10,671
San Bernardino	50	$8,920	$9,173	$9,509
Weighted Average		**$9,684**	**$10,132**	**$10,327**
Trend			***4.63%***	***1.93%***

Are there any problems with this approach?

Phasing in starting in 2019 – Adjusted regional expenditures

County	ACO Beneficiaries	Assignable beneficiaries
Delta	2,357	3,263
Garfield	2,339	3,858
Mesa	4,844	10,462
Montrose	3,867	4,323
Total	**13,407**	**21,906**

Percent regional penetration **61.20%**

Weight on national trend	61.20%
Weight on regional trend	38.80%

Medicare's regional approach to a reasonable trend

Pros

- Regional trends more accurately capture local market dynamics.
- National / regional blending limits the effect of an ACO having to compete against their own utilization reduction activities.

Cons

- The values used to trend the benchmark are not fully known until after the performance period, making it difficult for the ACO to predict savings.

General challenges with setting ACO trend

- In some ways establishing trend in the MSSP program is ***easier*** because of the large reference population, relatively stable eligibility criteria, and standard reporting over time.
- Establishing trend can be much more difficult in commercial or other populations:
  - Any individual payer will not have the same volume of data as CMS that can be used to set trend. There are external trend benchmarks, but the timing is lagged and the underlying data opaque.
  - The actuaries must consider the impact of benefit design changes on utilization levels.
  - The actuaries must consider the social factors that impact utilization, and how that will impact trend.
  - Changes in eligibility or type of beneficiaries covered can significantly impact trend. This is particularly true with Medicaid.

This is an area where payers and providers will need actuaries to consider the issues and advocate on their behalf in negotiations.

Medicare's approach – accounting for outliers

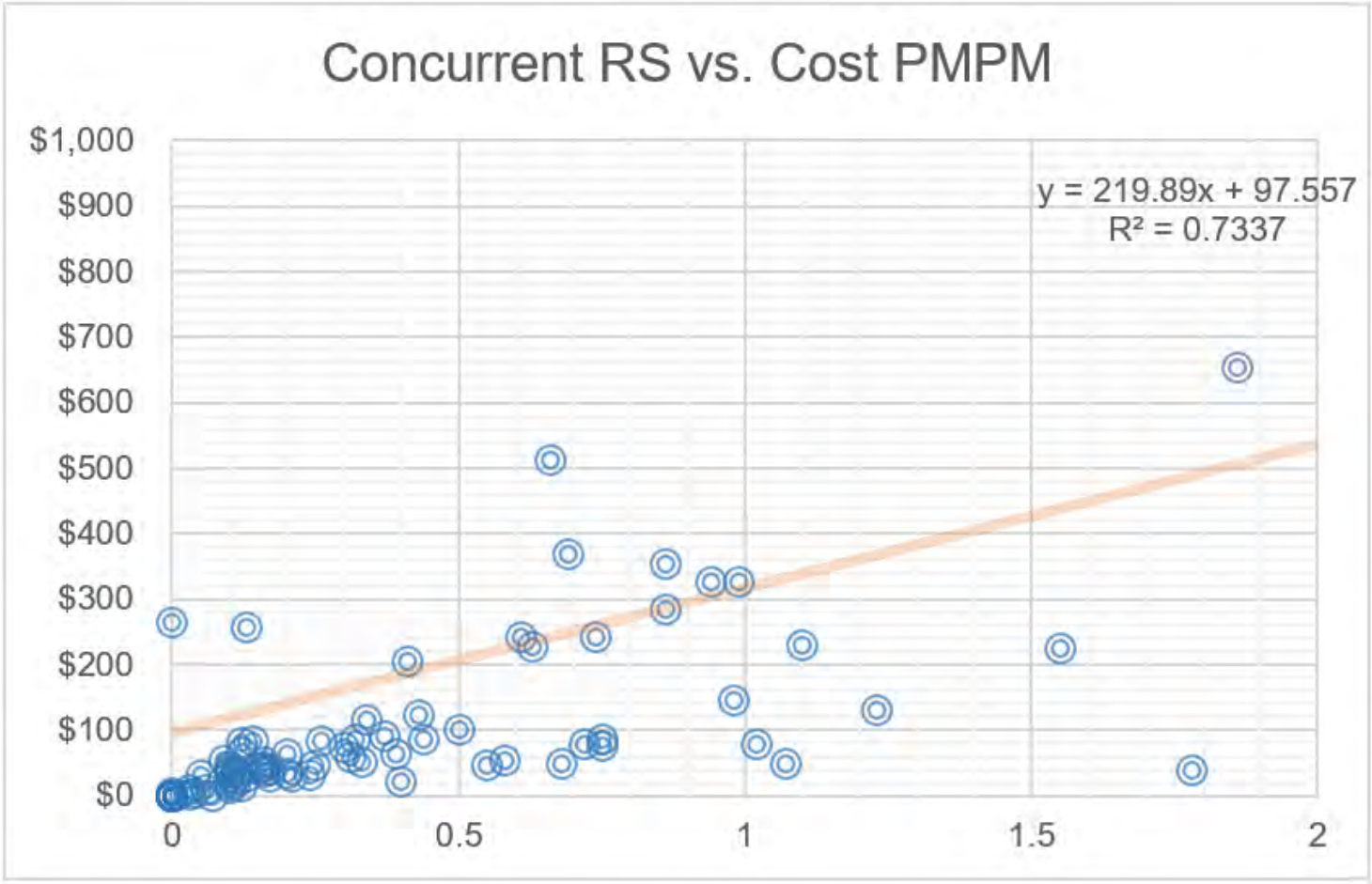
How do you limit the effect of very high cost claimants?

- *CMS truncates annualized expenditures at the 99th percentile of per capita expenditures for the national assignable population.*

In 2017 the truncation levels were:

- *Aged / non-Dual:* *$125,790*
- *Aged / Dual:* *$189,563*
- *Disabled:* *$136,466*
- *ESRD:* *$427,506*

Accuracy of risk adjustment for high-cost claimants



Medicare's approach to dealing with outlier cases

Pros

- An outlier cutoff limits and ACOs exposure to the highest cost cases, which are somewhat stochastic in nature and drive volatility in the benchmark and performance periods.

Cons

- The relationship between risk score and costs starts to break down before the truncation point, meaning that ACOs still have some exposure to irregular frequency of high-cost cases.

Medicare's approach – avoid competing against past performance

How do you keep ACOs from having to compete against their past performance?

CMS has tried out two approaches:

- *A benchmark adjustment to account for past savings*
- *Blending in regional experience to dilute the effect of ACO past performance*

Original approach

- Prior savings were added back into the benchmark upon renewal.
- The challenge with this approach was that it continued to reward ACOs who initially entered the program with high (and inefficient) spending levels, with not leveling mechanism for ACOs who were already efficient when entering the program.

Regional approach

- To establish the benchmark, ACO experience is blended with regional experience, based on the ACO's footprint by county.
- This raises the benchmark for efficient ACOs, and lowers the benchmark for inefficient ACOs.

Medicare's approach to limiting competition against past performance

Pros

- Raises the benchmark for efficient ACOs, regardless of if they entered the program with efficient care patterns or if they achieve efficiency at some point during their program participation.

Cons

- ACOs are still competing against their past performance (and savings) at a rate of about 50%.
- There is no mechanism for adjusting the benchmark for ACOs that operate in a particularly efficient region.
- Regional blending may deter participation for ACOs that are currently inefficient.

Proposed alternatives for benchmarking

Researchers at Harvard:

- Have advocated removing the regional adjustment from the benchmark, and rather using the regional adjustment to set the shared savings / shared loss rate.
- Recommend using multilevel statistical modeling approaches to estimate ACO-specific update factors that reflect regional and national trends, to be applied annually.

Alternate measurement of savings

- Dobson | DaVanzo (MSSP) and NORC (Next Gen) studies shows drastically different shared savings results when using difference-of-difference methods rather than calculating savings as the difference between benchmark and performance year costs.

NGACO name	Gross impact (NORC)	Shared savings/(Loss)	Net impact	Still NGACO in 2018?
NGACO 1	$11.9	($6.2)	$18.1	No
NGACO 2	$12.6	($5.2)	$17.8	No
NGACO 3	$26.5	$10.7	$15.8	Yes
NGACO 4	$15.3	$5.7	$9.6	Yes
NGACO 5	$8.6	$0.9	$7.7	No
NGACO 6	$7.8	$1.3	$6.5	Yes
NGACO 7	$5.0	($0.7)	$5.7	Yes
NGACO 8	$4.6	($0.1)	$4.7	Yes
NGACO 9	($1.0)	($5.2)	$4.2	No
NGACO 10	$9.7	$6.5	$3.2	Yes
NGACO 11	$0.5	($2.1)	$2.6	Yes
NGACO 12	$5.2	$3.9	$1.3	Yes
NGACO 13	($2.2)	$0.3	($2.5)	Yes
NGACO 14	$2.2	$4.7	($2.5)	Yes
NGACO 15	($3.3)	$1.4	($4.7)	Yes
NGACO 16	($6.6)	($0.9)	($5.7)	No
NGACO 17	$1.8	$10.5	($8.7)	Yes
NGACO 18	$1.3	$12.3	($11.0)	Yes
Total	$100.1	$38.0	$62.1	

How do you make this feel fair and transparent for providers? How do you make this appealing for efficient providers?

Financial Incentives

Provider risk sharing

SOCIETY OF ACTUARIES

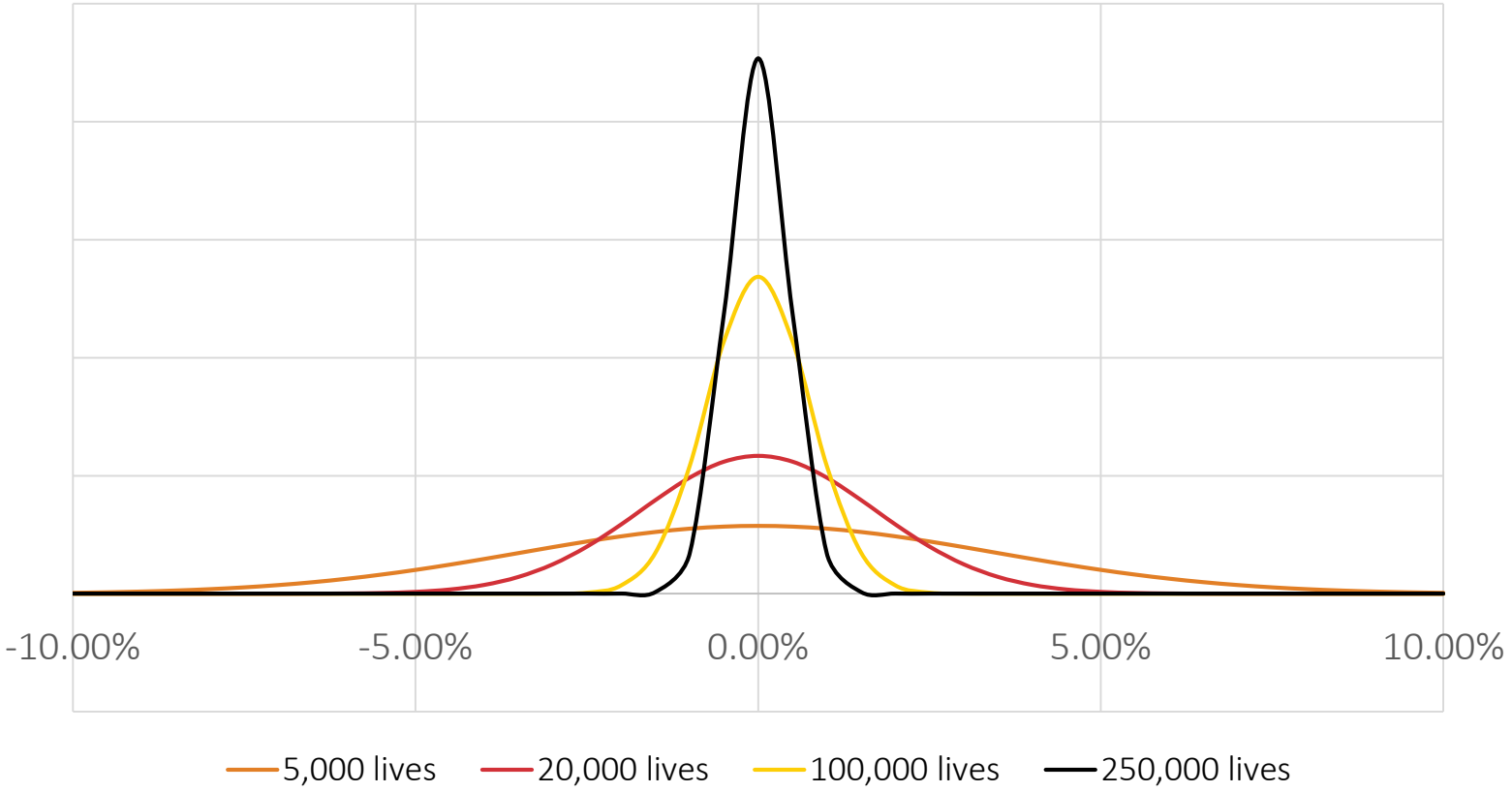
What do I do with all this money?

Minimum Savings / Loss rate

- Savings/losses only implemented once the “trigger” is hit
- Can help ensure savings or loss are more likely due to performance reasons than random variation

Variability of performance year outcomes by ACO size – Medicare FFS

Ratio of risk adjusted PY / BY expenditures



Risk Sharing Caps

- It is important to understand the financial makeup of the provider organizations entering risk. At a certain point losses may bankrupt physician-led ACOs
- Total cost of care limits
- Revenue-based limits

Provider Loss Funds

- In downside arrangements, it may be prudent to set up a fund to cover potential downside losses
- This can be done in many ways including:
  - IBNR-based approach
  - Monthly payments into escrow account
  - Up-front risk set aside
- What is the appropriate amount to set aside?
- How often should this amount be changed?

Quality

- All-or-nothing threshold compared to multiplier of shared savings
- Which quality metrics should be used?

Percentage of shared savings

- What is the right level to sufficiently incentivize and reward providers?
- Should the savings and loss percentages be mirrored?
- Varying savings/loss percentages by magnitude of savings/loss

One-sided vs Two-sided

- How many years should an organization be allowed to be in one-sided risk?
- What risks are present to the payer in one-sided arrangements?

Distribution of Shared Savings

- Separate from the calculation of savings in total
- Credibility of contribution to savings at the individual provider level
- Savings sharing between specialists and PCPs

Data Sharing

SOCIETY OF ACTUARIES

Examples of data sharing challenges

- Removed claims
- Removed or masked reimbursement amounts for services provided outside the ACO.
- Removed or masked diagnosis codes.
- Data use agreements

Challenges in data sharing

Challenge: Facilitating data transfer between payer and ACO.

Solution: Frequently, the payer will provide periodic (monthly, quarterly, annually) cuts of claims data for members belonging to the ACO.

Downstream problems: Delays in data sharing mean that the ACO has a delay in monitoring patient claims, particularly those that occur outside of the ACO.

Challenges in data sharing

Challenge: Allowed dollar amounts may give the ACO insight into its competitors' insurer-provider reimbursement contracts, revealing proprietary information.

Solution: Many payers mask or remove allowed or paid dollar amounts for claims that occur outside the ACO.

Downstream problems: The ACO, which is often responsible for total cost of patient care, has no transparency into the cost of care occurring outside the ACO.

Challenges in data sharing

Challenge: The payer may be concerned that sharing all diagnosis codes might violate patient privacy or result in patient discrimination.

Solution: The payer might mask certain diagnosis codes.

Downstream problems: The provider cannot get a full view of a beneficiary's health for whom they are responsible. Also, the ACO will not be able to replicate risk scores, creating an information asymmetry.

Challenges in data sharing

Challenge: The payer would like to protect proprietary claims data, how it is used, and who it is shared with.

Solution: The payer may put in place data use agreements to limit acceptable data use.

Downstream problems: Payers often rely on 3rd parties to assist in processing and interpreting claims data. Restrictive data use agreements might limit providers' ability to leverage claims data to meaningfully impact care.

How have you seen this play out in your company?

SOA Provider Risk Sharing Boot Camp for Health Actuaries

Introduction to Population Health Management

STODDARD DAVENPORT

SOCIETY OF ACTUARIES

Objectives

To understand:

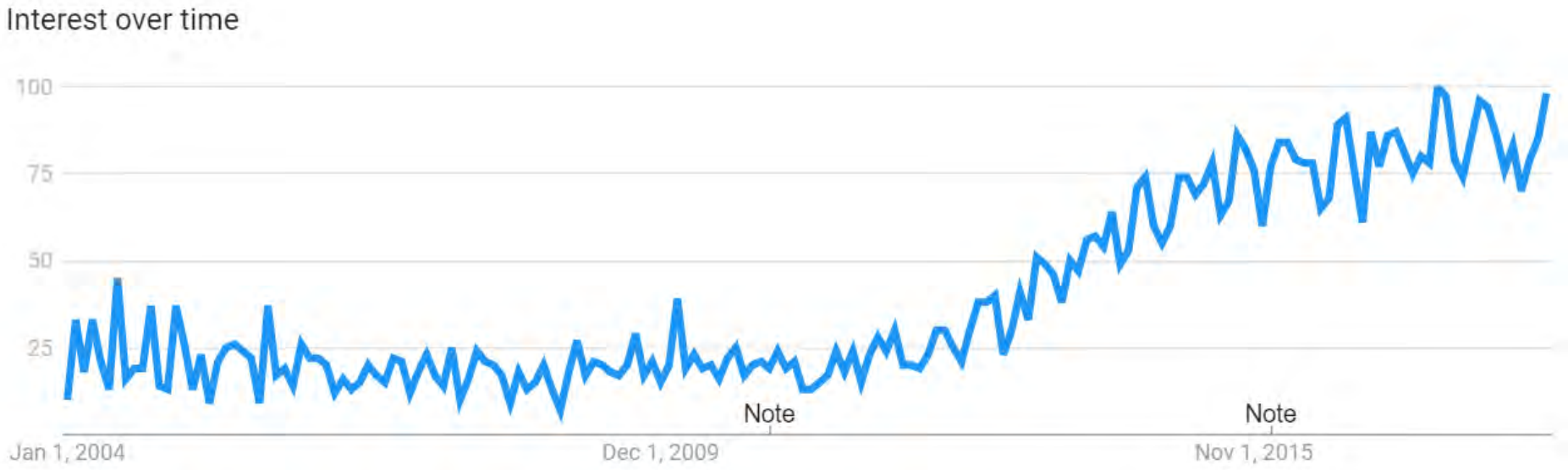
- What population health means
- The context for considering population health
- Basic principles of population health management
  - Defining the population
  - Understanding their health outcomes
  - Designing and implementing interventions
  - Measuring success
  - Learning from the past and continually improving

Defining the terms

SOCIETY OF ACTUARIES

What is population health?

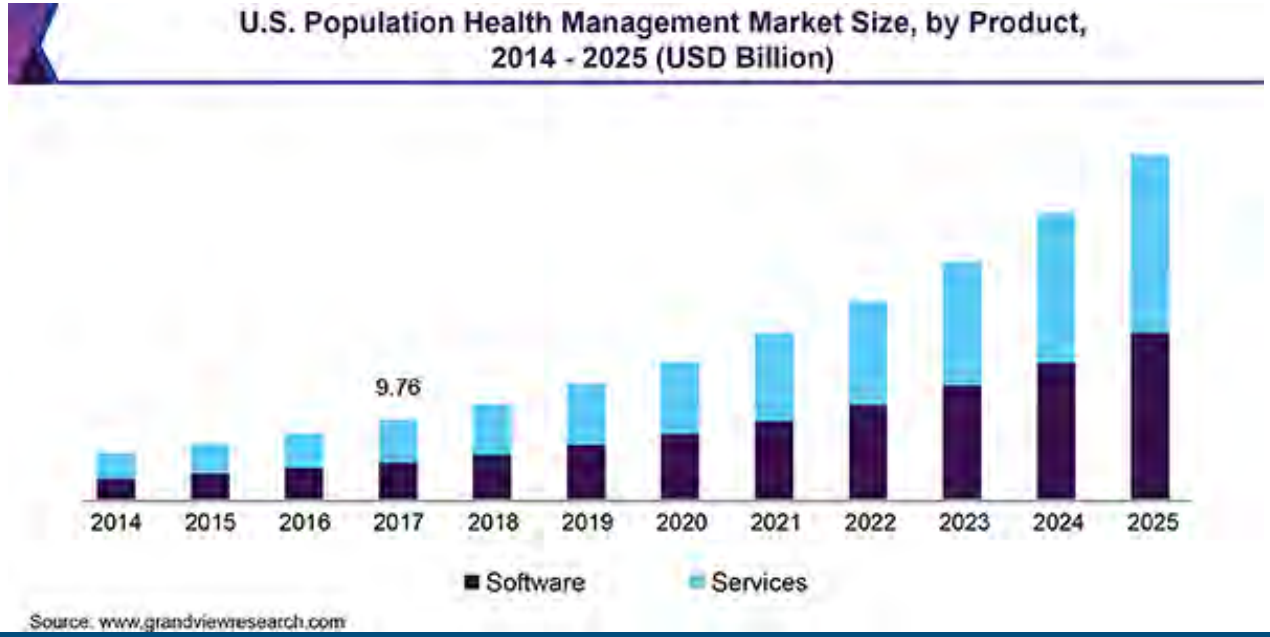
- Population health has become an industry buzzword
- 5x as much interest as a decade ago



Source: Google Trends data for “population health”

Just in the last month . . .

- **Half** of Medicaid managed care plans launching population health models (Forbes, October 2018)
- Healthcare executives rank population health as one of the **top challenges for 2019** (Healthcare Informatics, October 2018)
- Population health management market expected to reach **$41+ billion** by 2025, with ~20% growth rate (Grand View Research, October 2018)



Atrius Health
Reducing hospitalizations

LEE HEALTH
Community organization

children's health
Telemedicine

Montefiore
Inspired Medicine
Healthier food

FirstHealth OF THE CAROLINAS
Diabetic outcomes

Nemours
Children's Health System
Patient coordinators

CHRISTIANA CARE HEALTH SYSTEM
Predictive analytics

ARIA HEALTH
Preventative screenings

Catholic Health Initiatives
Reducing care complications

CHOC Children's
Continuity of care

HealthEast Care System
Reducing hospitalizations

Bassett Healthcare Network
Bassett Medical Center
Treatment compliance

Baystate Health
Medical-behavioral comorbidities

Mercyhealth
A passion for making lives better.™
Socioeconomic barriers

NorthShore University HealthSystem
Inherited cancer risks

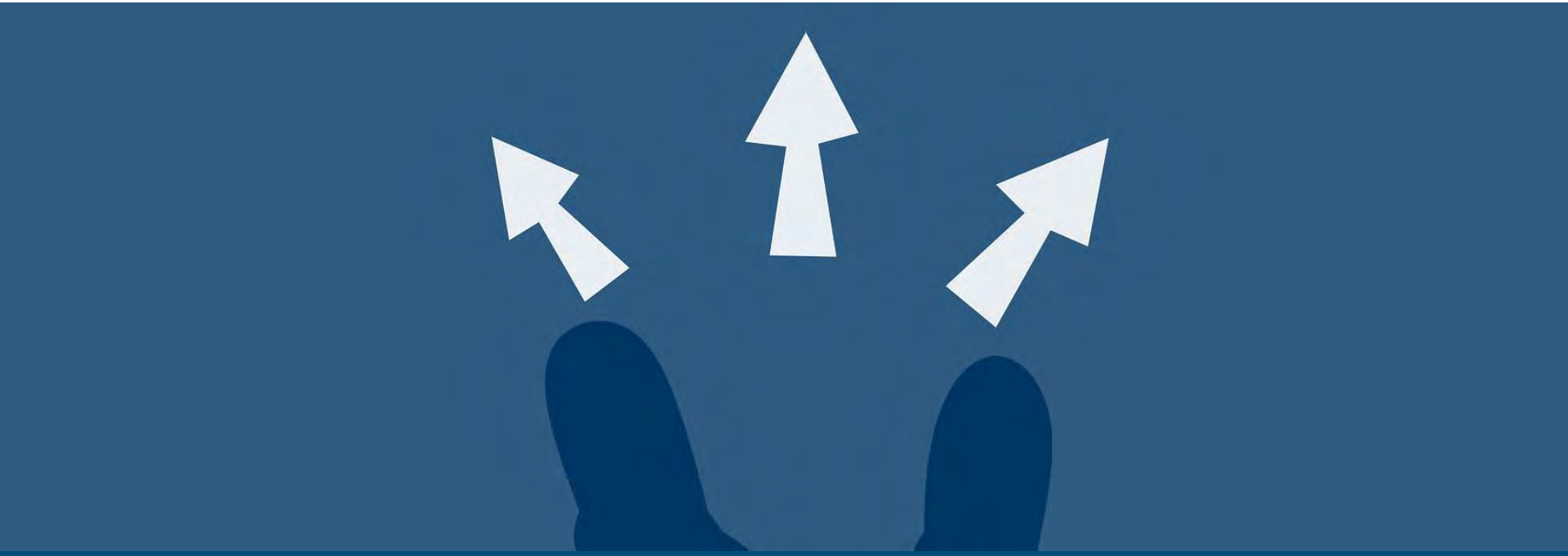
CONE HEALTH
Environmental evaluations

St. Joseph

Hoag Health
Lifestyle management

What is population health?

- “Population health” programs are becoming ubiquitous, but are we all talking about the same thing?



What is population health?

The classic definition:

"The health outcomes of a group of individuals, including the distribution of such outcomes within the group."

Includes:

- Health outcomes
- Patterns of health determinants
- Policies and interventions that link these two.

-From David Kindig, MD, PHD and Greg Stoddart, PhD

American Journal of Public Health, November 15, 2002

Further considerations . . .

What is health?

- From the World Health Organization:

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

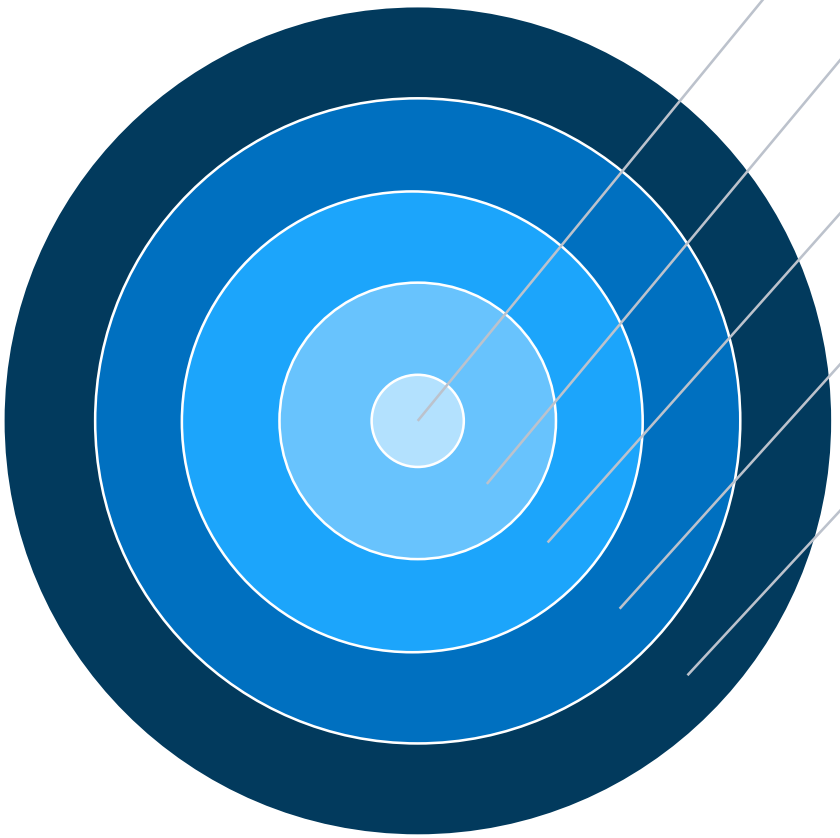
Who is the population?

- Not everybody – a defined group
- Attribution and empanelment

What are determinants?

- Social, economic, and physical environments
- Individual characteristics and behaviors
- Health care services

Models of health: socio-ecological framework



Individual traits → *Age, sex, race, genetics, biology of disease, etc.*

Individual behaviors → *Exercise, nutrition, sexual behaviors, etc.*

Interpersonal networks → *Social, family, and community networks*

Living and working conditions → *Psychosocial factors, employment status, occupation and job-related hazards, income, education, natural and built environments, public health services, health care services*

Broad environmental conditions → *Social, economic, cultural, health, and environmental conditions, including policies at the global, national, state, and local levels*

Adapted from Whitehead M and Dahlgren G. What can be done about inequalities in health? *Lancet*. 1991;338(8774):1059-63

Putting health at the center of the health care system

"Health service organizations are social enterprises with an economic dimension rather than an economic enterprise with a social dimension"

-Kurt Darr, JD, MHA, DsC and leading health care ethicist

Ethics in Health Services Management, 4th ed. (2004)

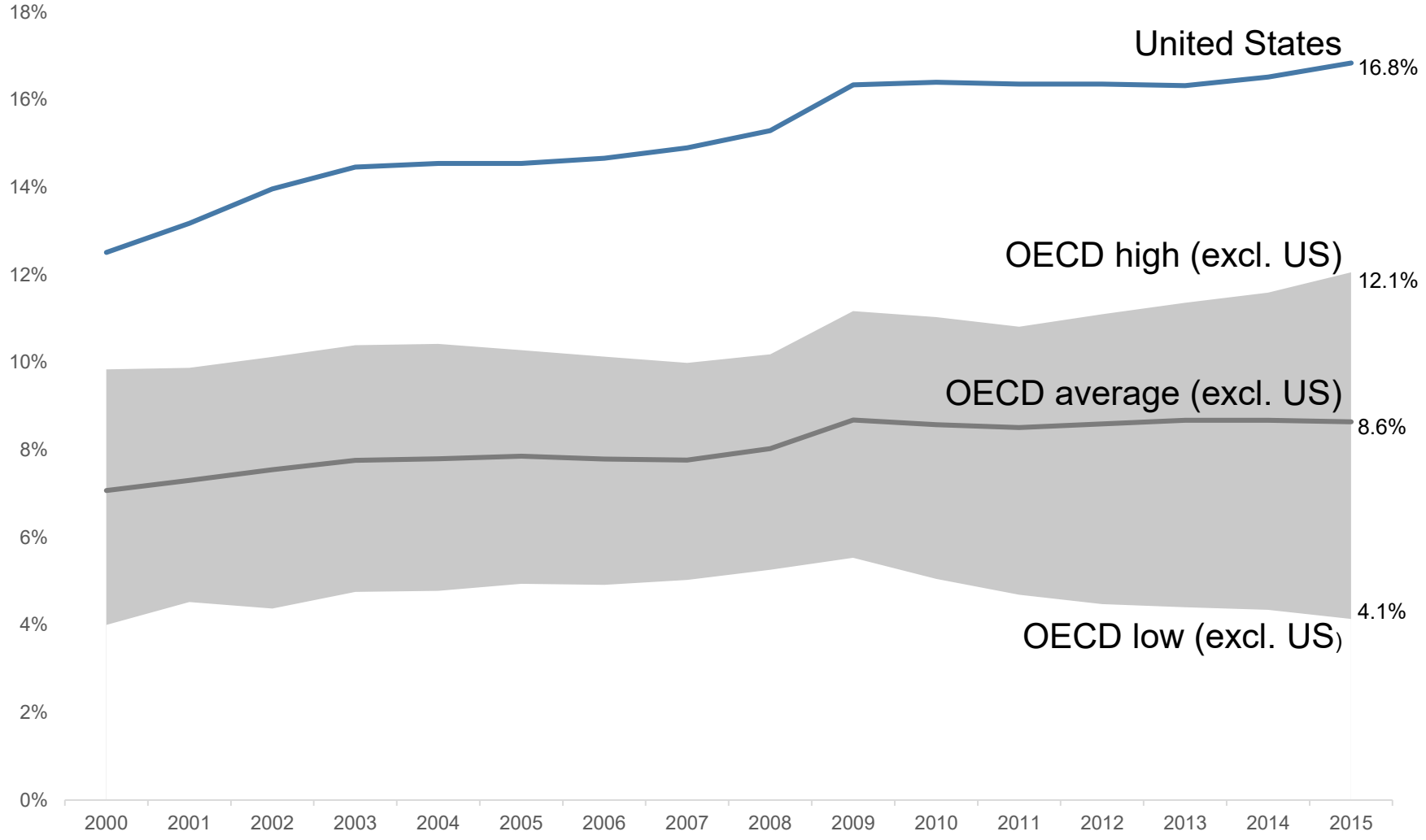
How are we doing?

SOCIETY OF ACTUARIES

How is the U.S. health care system performing?

1. It's expensive

Total Health Care Spending as a Percentage of GDP, United States and other OECD Members, 2000-2015



Source: The World Bank, World Health Organization Health Expenditure database.

How is the U.S. health care system performing?

1. It's expensive

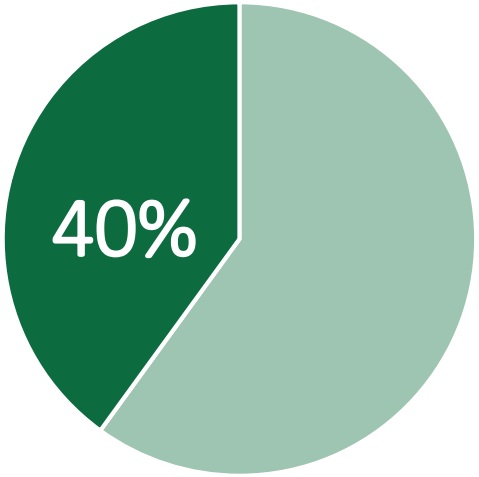
Average annual healthcare costs for a family of four

Source: Milliman Medical Index

How is the U.S. health care system performing?

1. It's expensive

2018 median household Income for a family of four

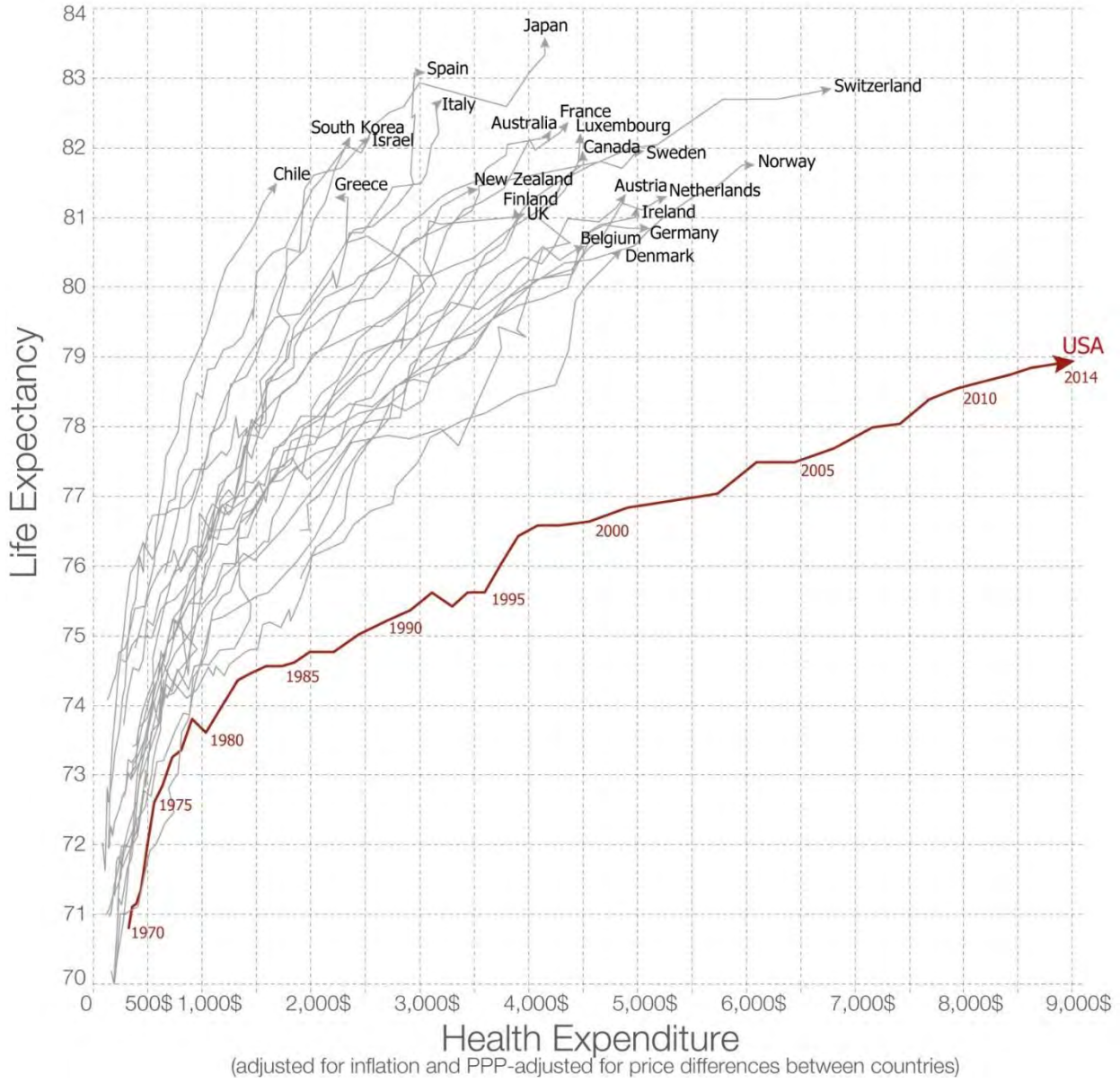


OR

MSRP – Brand New 2018 Toyota Rav4 Hybrid

How is the U.S. health care system performing?

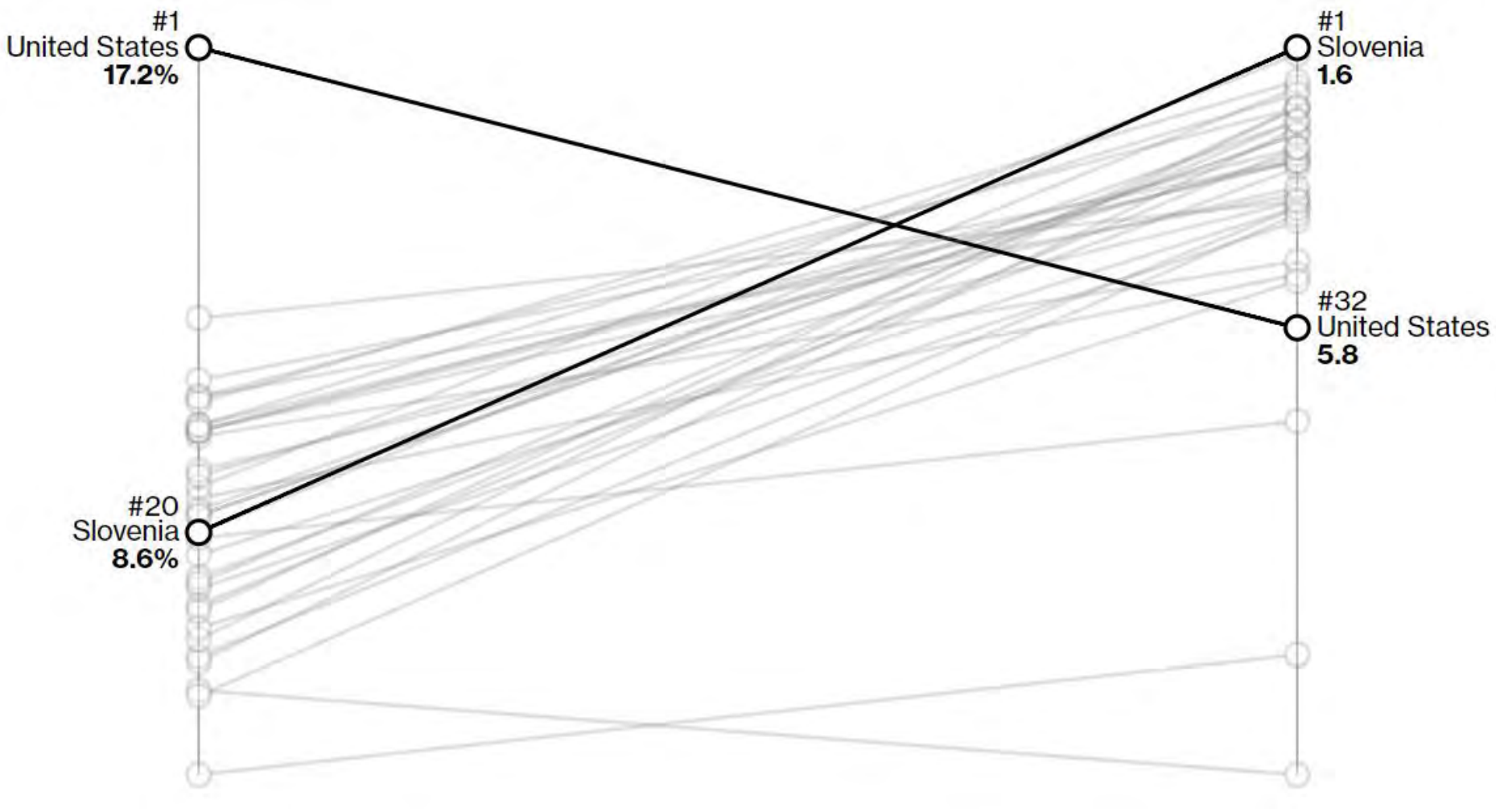
1. It's expensive
2. The outcomes are mediocre



Source: *Link between health spending and life expectancy: US is an outlier.* By Max Roser at OurWorldInData.org

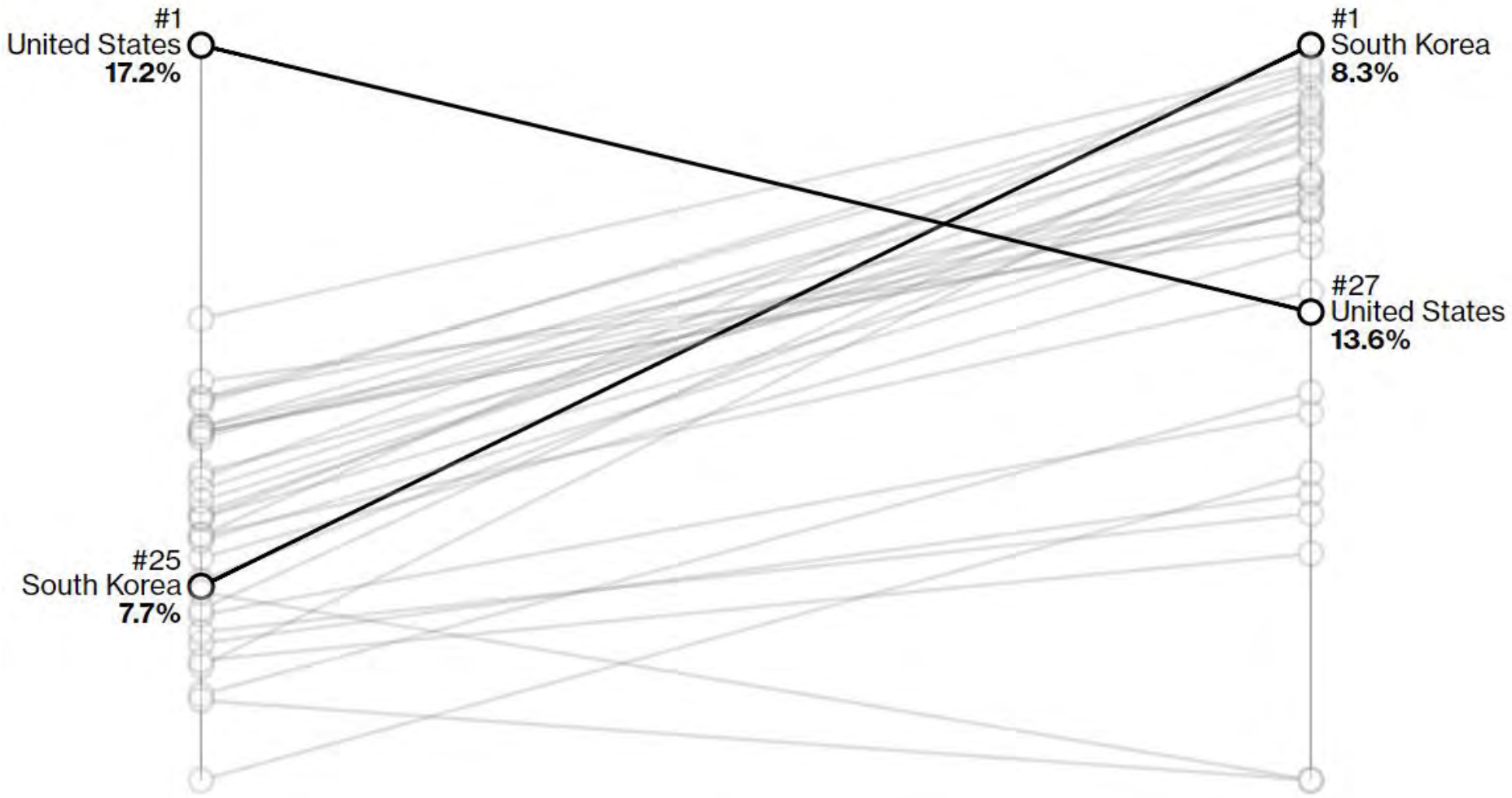
Healthcare spending
(percentage of GDP)

Infant mortality
(per 1,000 live births)



Source: *Americans Die Younger Despite Spending the Most on Health Care.* By Laurie Meisler, Blomberg

Healthcare spending (percentage of GDP) Premature death* (probability)



*From noncommunicative disease

Source: *Americans Die Younger Despite Spending the Most on Health Care.* By Laurie Meisler, Bloomberg

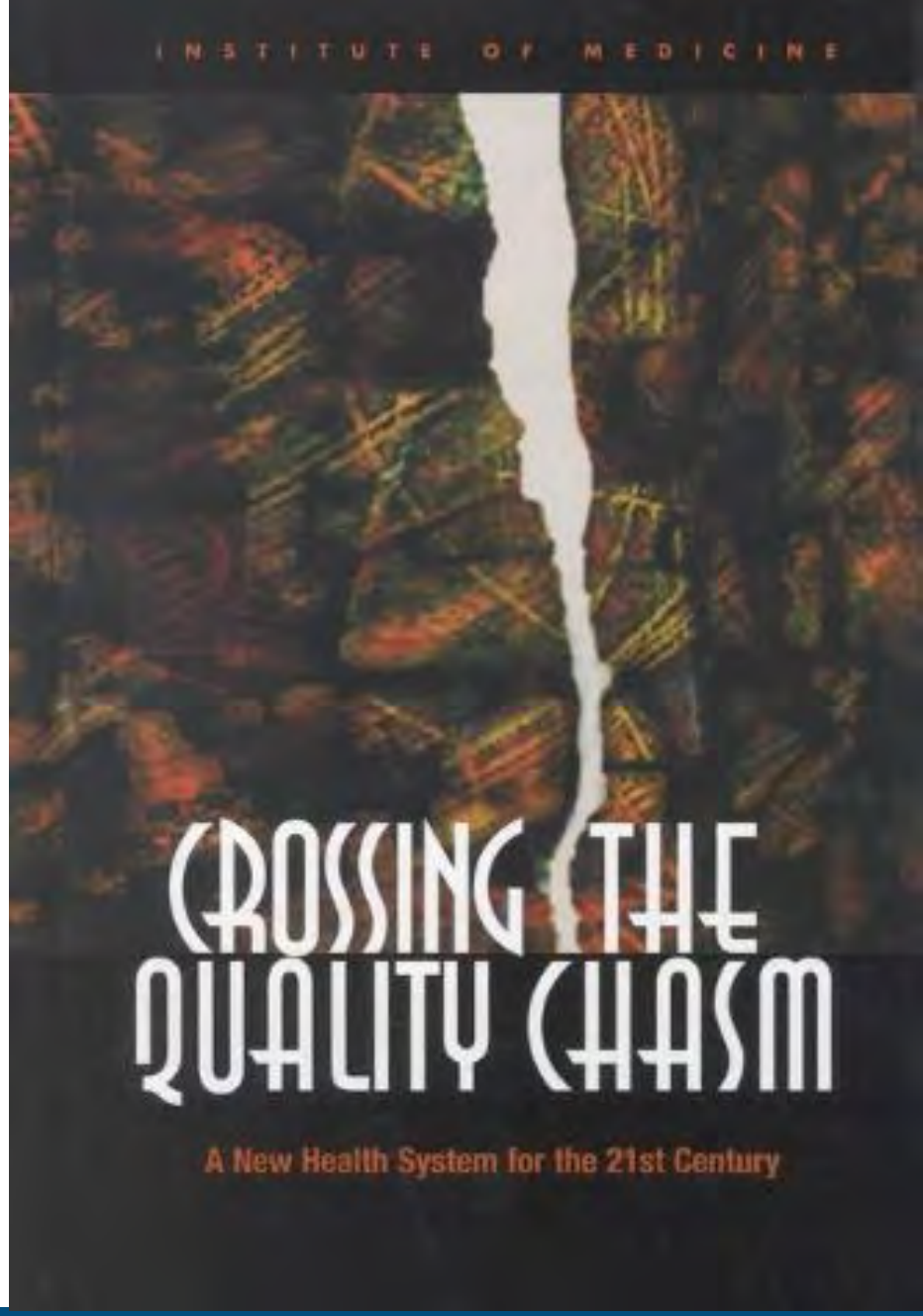
How is the U.S. health care system performing?

1. It's expensive
2. The outcomes are mediocre
3. **The quality is not consistent**

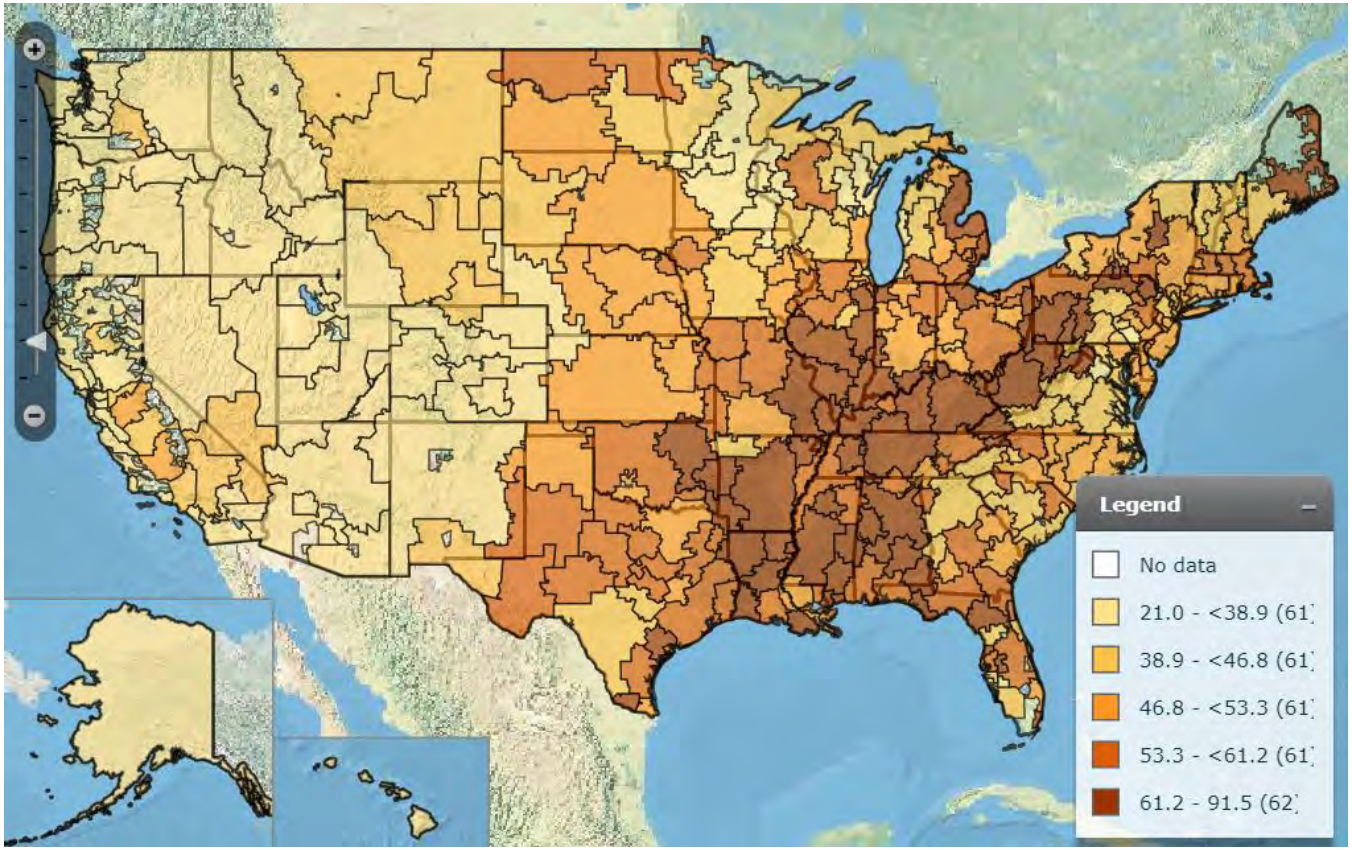
"The U.S. health care delivery system does not provide consistent, high quality medical care to all people. Americans should be able to count on receiving care that meets their needs and is based on the best scientific knowledge--yet there is strong evidence that this frequently is not the case. Health care harms patients too frequently and routinely fails to deliver its potential benefits. Indeed, between the health care that we now have and the health care that we could have lies not just a gap, but a chasm."

-Institute of Medicine, 2001

(Now called the Health and Medicine Division of the National Academies of Sciences, Engineering, and Medicine)



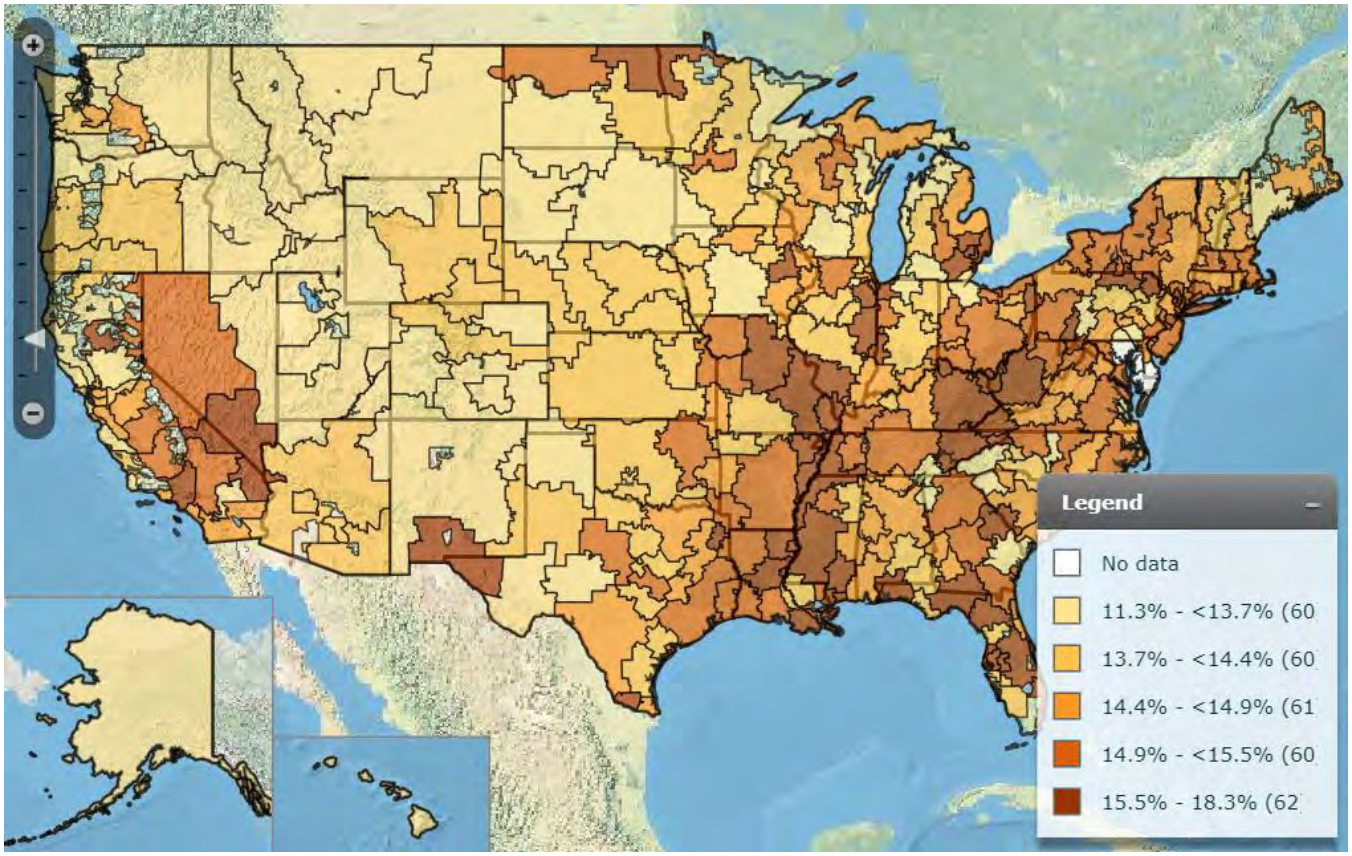
Disparities in outcomes



Potentially avoidable admissions per 1,000 Medicare enrollees, 2015

Source: Dartmouth Atlas of Health Care

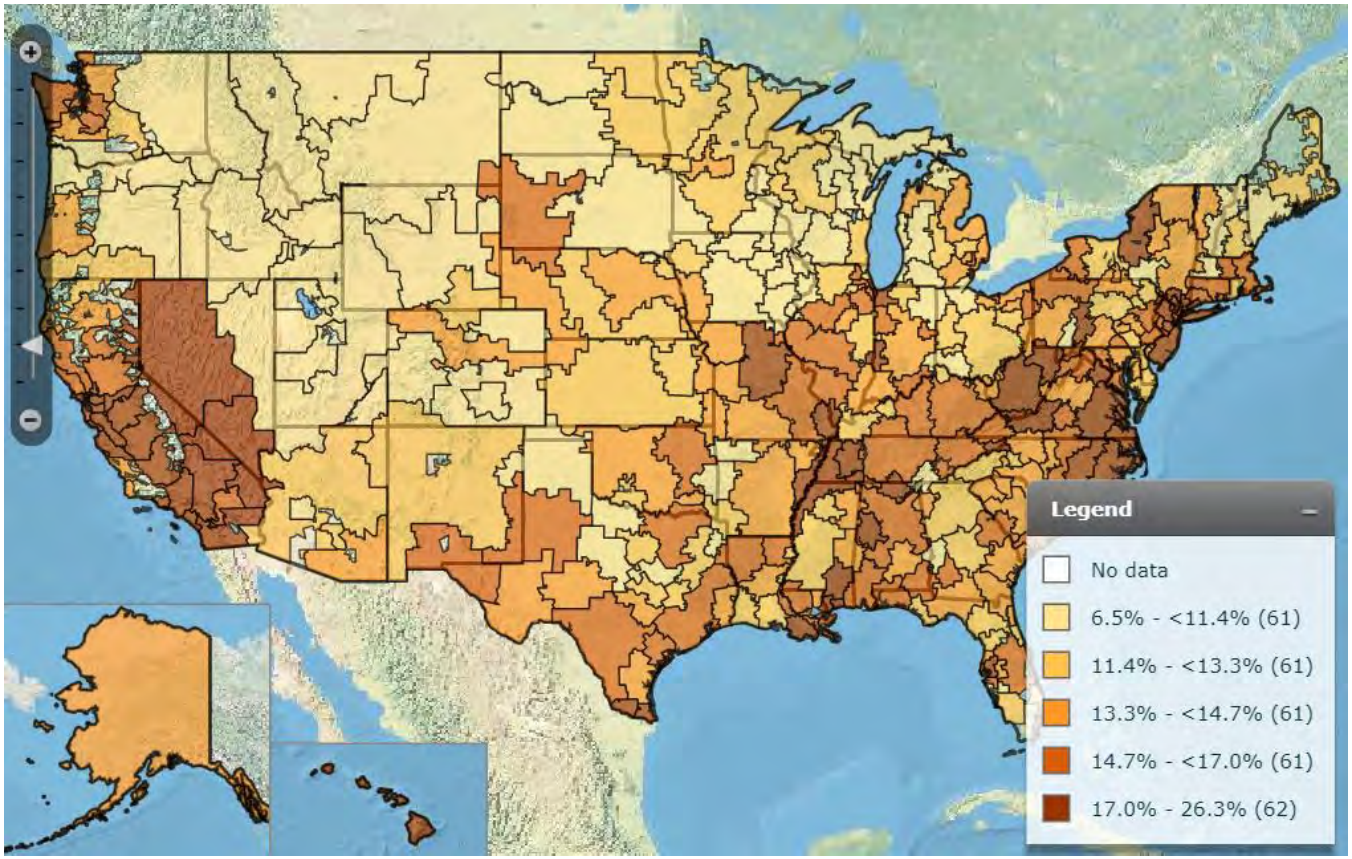
Disparities in outcomes



Percent of Medicare patients readmitted w/in 30 days of discharge, 2015

Source: Dartmouth Atlas of Health Care

Disparities in outcomes

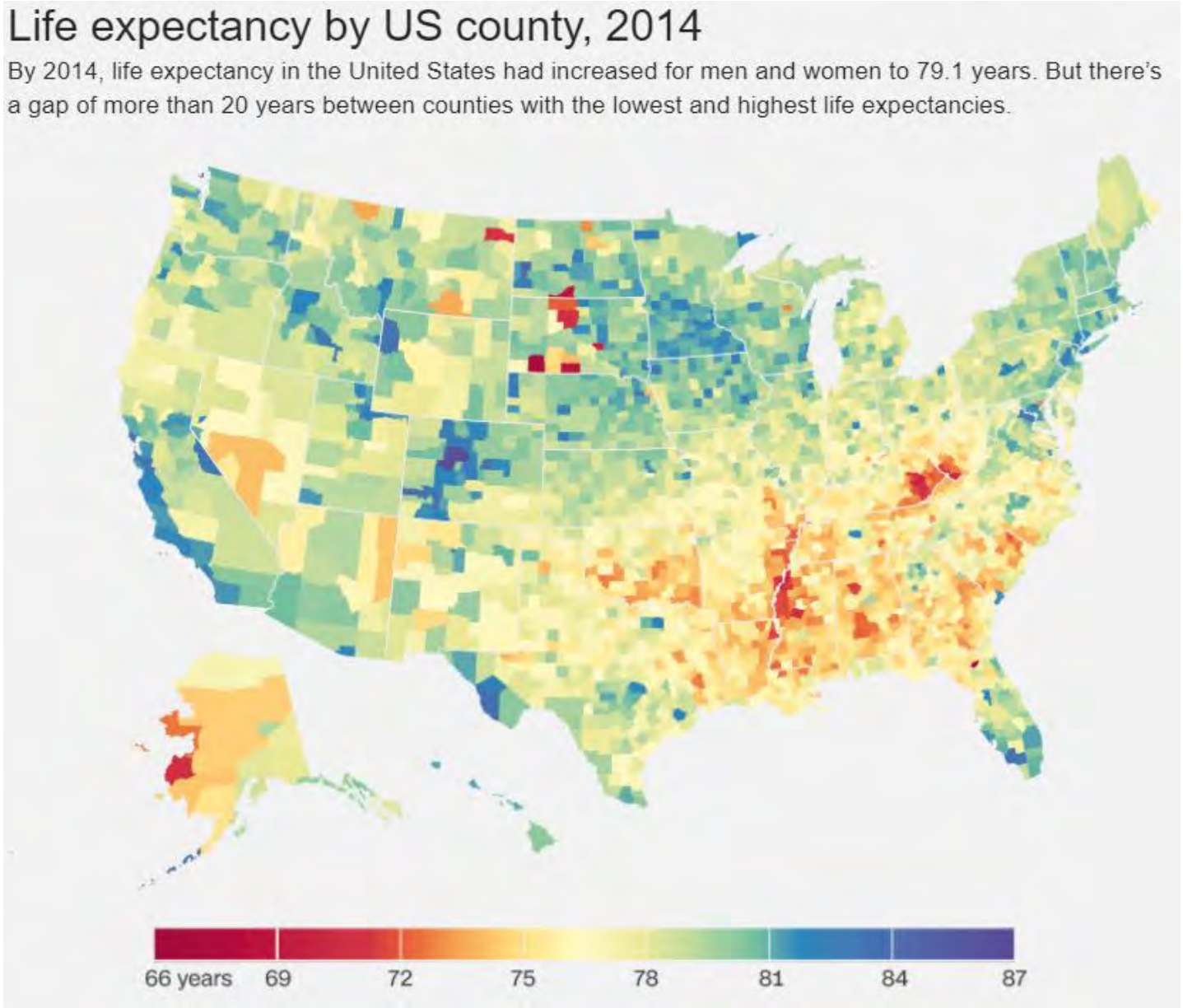


Percent of deaths associated with an ICU admission, 2014

Source: Dartmouth Atlas of Health Care

Life expectancy by US county, 2014

By 2014, life expectancy in the United States had increased for men and women to 79.1 years. But there's a gap of more than 20 years between counties with the lowest and highest life expectancies.



Source: JAMA Internal Medicine, visualization from CNN

Life expectancy by US county, 2014

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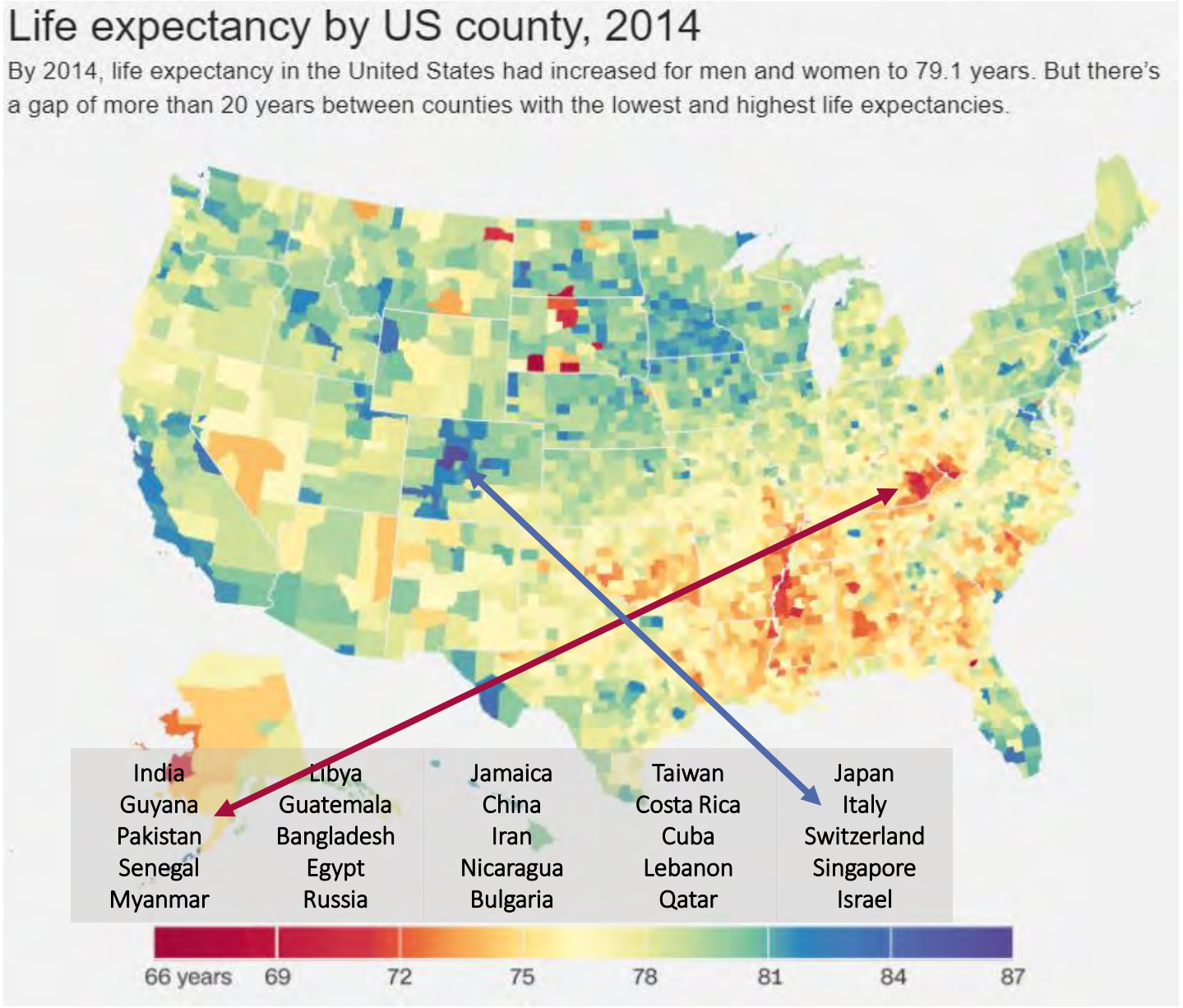


Source: JAMA Internal Medicine, visualization from CNN, United Nations *World Population Prospects,* 2015 rev.

How is the U.S. health care system performing?

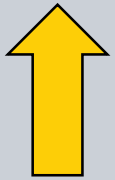
1. It's expensive
2. The outcomes are mediocre
3. The quality is not consistent
4. **All of the above = low value**

Value hangs in the balance . . .

What is value?

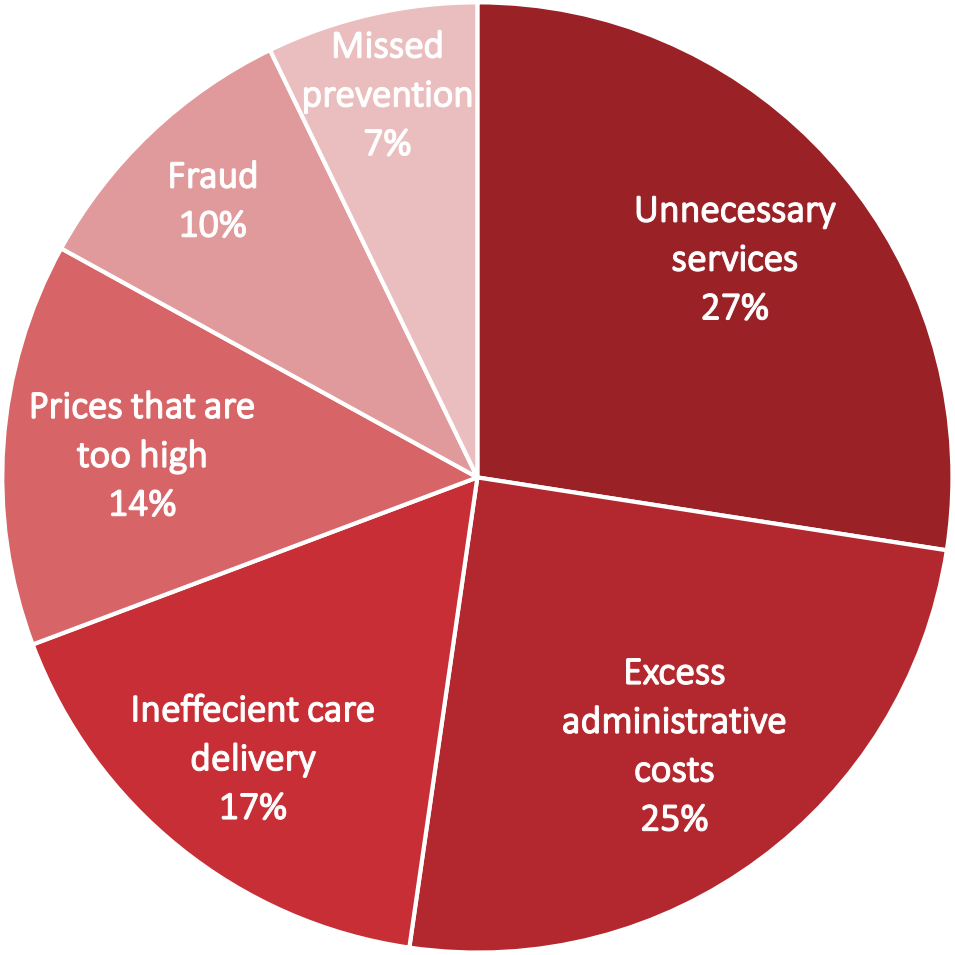
$$\downarrow \text{Value} = \frac{\downarrow \text{Quality + Outcomes}}{\uparrow \text{Cost}}$$

What makes value go up?

	Costs	Quality and Outcomes	Value
Costs go down, quality and outcomes stay the same			
Costs stay the same, quality and outcomes go up			
Costs go up, but quality and outcomes go up faster			
Quality and outcomes go down, cost goes down faster			

What does low value spending look like?

- In simple terms – **health care expenditures that don't improve health.**
- Report from the Institute of Medicine: **$750 billion** of health expenditures in 2009 were waste – **30%** of all spending



Adapted from *Best Care at Lower Cost: The Path to Continuously Learning Health Care in America*, Institute of Medicine, 2012.

Tackling the value problem

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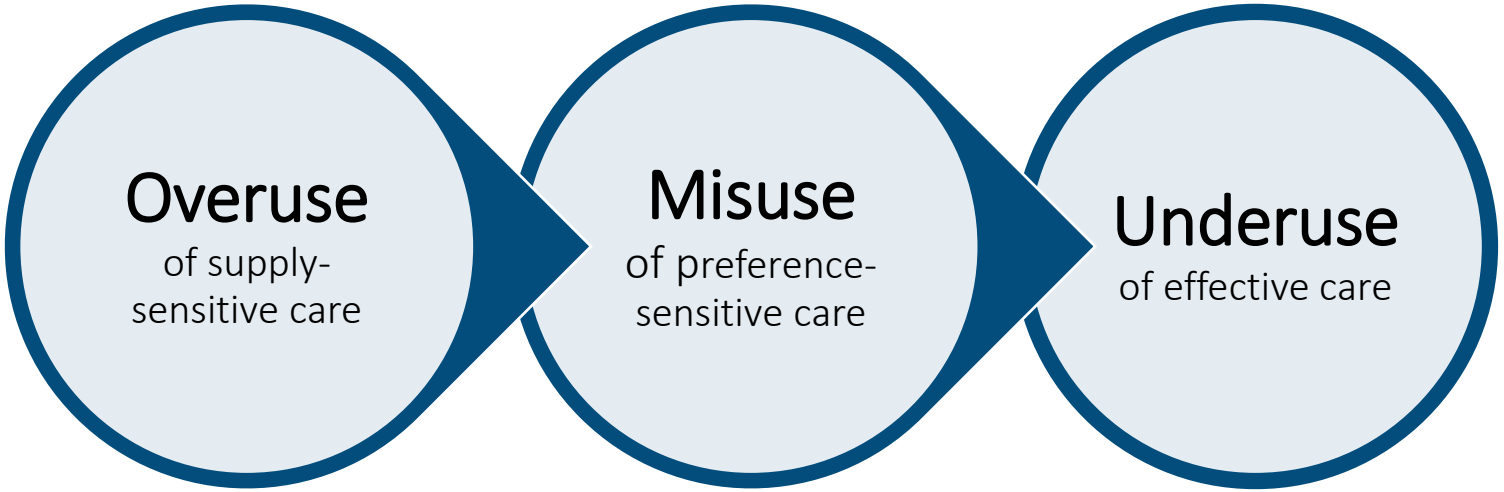
Types of low value care

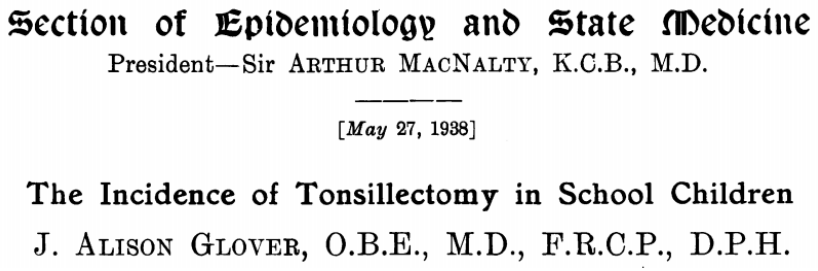
Unwarranted variation:

> Variation that "cannot be adequately explained on the basis of differences among regions in illness rates, patient preferences, or the dictates of evidence-based medicine."



Source: The Dartmouth Atlas of Health Care

Unwarranted variation – a new problem?



Section of Epidemiology and State Medicine

President—Sir ARTHUR MACNALTY, K.C.B., M.D.

[*May* 27, 1938]

The Incidence of Tonsillectomy in School Children

J. ALISON GLOVER, O.B.E., M.D., F.R.C.P., D.P.H.

Minnesota	• Ages 11-20: 41% of boys, 33% of girls • Ages 10-14: 61% of children of armed forces medical officers
Missouri	• 2% of school children in southeast MO • Hardly any children in country districts
England and Wales	• By age 14: 83% of kids at well-to-do schools, 20% in less well-to-do schools

"It is a little difficult to believe that among the mass of tonsillectomies performed today all subjects for operation are selected with true discrimination, and one cannot avoid the conclusion that there is a tendency for the operation to be performed as a routine prophylactic ritual for no particular reason and with no particular result"

Glover, Alison. The Incidence of Tonsillectomy in School Children. *Proceedings of the Royal Society of Medicine*. 1938 Aug; 31(10):1219-1236

Birth of “medical care epidemiology”

Jack Wennberg’s 1967 grant from Pres. Lyndon Johnson

- Goal: To study physician performance using Medicare data
- Relatively homogenous population
- Examined resource inputs and utilization rates by hospital service area

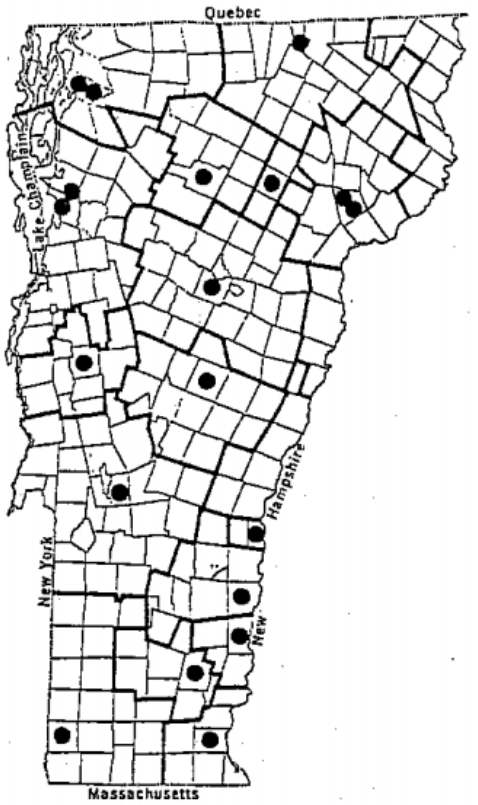


Fig. 1. Map of Vermont showing minor civil divisions, the Vermont town (lighter line). Darker line shows boundaries of hospital service areas. Circles represent hospitals. Areas without circles are served principally by hospitals in New Hampshire.

Wennberg J, Gittelsohn A. Small Area Variations in Health Care Delivery. *Science* 1973;182:1102-8.

Surgical procedures per 10,000 population in Vermont, 1969

Surgical procedure	Average	Low	High	Variation
Tonsillectomy	43	13	151	11.6x
Hemorrhoidectomy	6	2	10	5.0x
Females- dilation & curettage	55	30	141	4.7x
Females- varicose veins	12	6	28	4.7x
Males- prostatectomy	20	11	38	3.5x
Females- cholecystectomy	27	17	57	3.4x
Appendectomy	18	10	32	3.2x
Females- hysterectomy	30	20	60	3.0x
Females- mastectomy	18	12	33	2.8x
Males- hernioplasty	41	29	48	1.7x

Wennberg J, Gittelsohn A. Small Area Variations in Health Care Delivery. *Science* 1973;182:1102-8.

"Our results were fascinating, because they ran completely counter to what conventional wisdom said they would be…

When we looked at the data, **we found tremendous variation in every aspect of healthcare delivery**…

The basic premise—that medicine was driven by science and by physicians capable of making clinical decisions based on well-established fact and theory—was **simply incompatible with the data** we saw."

-Jack Wennberg, MD, MPH

Source: Clamping Down on Variation, *Managed Healthcare Executive*, February 1, 2003.

Progress over the next 40 years?

- Wennberg founded what ultimately became The Dartmouth Atlas of Health Care.
- The Atlas data has made variation in Medicare inputs and outcomes publicly available for years
- Atul Guwande goes to McAllen, Texas –the 2nd most expensive area for Medicare at the time

THE NEW YORKER ANNALS OF MEDICINE JUNE 1, 2009 ISSUE

THE COST CONUNDRUM

What a Texas town can teach us about health care.

By Atul Gawande

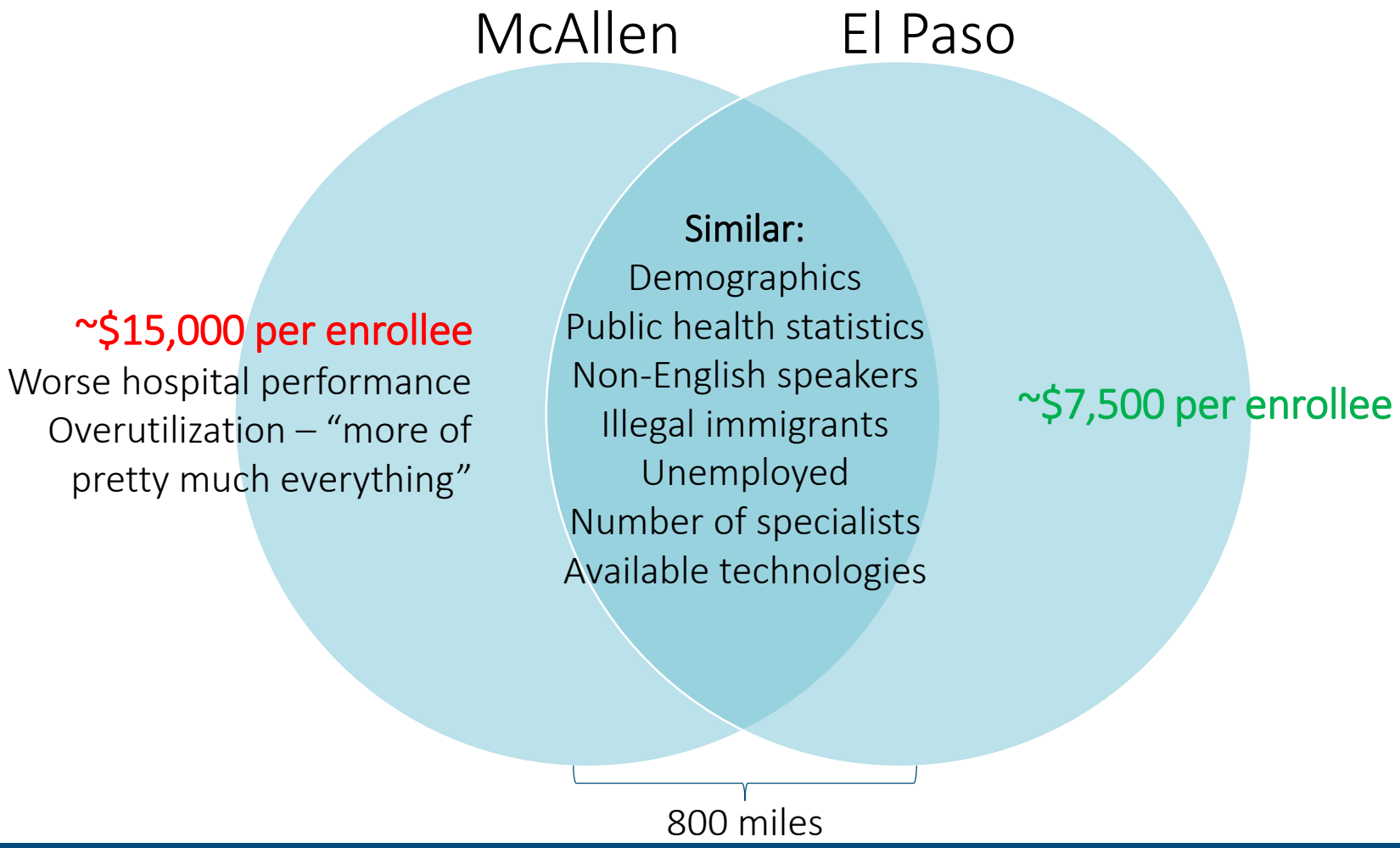
It is spring in McAllen, Texas. The morning sun is warm. The streets are lined with palm trees and pickup trucks. McAllen is in Hidalgo County, which has the lowest household income in the country, but it's a border town, and a thriving foreign-trade zone has kept the unemployment rate below ten per cent. McAllen calls itself the Square Dance Capital of the World. "Lonesome Dove" was set around here.

McAllen has another distinction, too: it is one of the most expensive health-care markets in the country. Only Miami—which has much higher labor and living costs—spends more per person on health care. In 2006, Medicare spent fifteen thousand dollars per enrollee here, almost twice the national average. The income per capita is twelve thousand dollars.

Costlier care is often worse care.

Photograph by Phillip Toledano

Same story, different time and place



Misaligned incentives

Atul Guwande's conclusion:

"The real puzzle of American health care . . . is not why McAllen is different from El Paso. It's why El Paso isn't like McAllen. Every incentive in the system is an invitation to go the way McAllen has gone."

Reaction from President Obama:

. . . "walked into the Cabinet room, threw The New Yorker on the table, and said, '**this is the problem we have to fix**.'"

Source: Luft, HS. From Small Area Variations to Accountable Care Organizations. *Annual Review of Public Health*, April 2012, 33:377-392.

The birth of Accountable Care Organizations

President supports building ACOs in to the Affordable Care Act.

Conceptual framework

HEALTH AFFAIRS > VOL. 26, NO. 1: CARDIOVASCULAR DISEASE & SOCIETY

Creating Accountable Care Organizations: The Extended Hospital Medical Staff

Elliott S. Fisher, Douglas O. Staiger, Julie P.W. Bynum, and Daniel J. Gottlieb

PUBLISHED: JANUARY/FEBRUARY 2007

Policy proposal

HEALTH AFFAIRS > VOL. 28, NO. 2: STIMULATING HEALTH IT

Fostering Accountable Health Care: Moving Forward In Medicare

Elliott S. Fisher, Mark B. McClellan, John Bertko, Steven M. Lieberman, Julie J. Lee, Julie L. Lewis, and Jonathan S. Skinner

PUBLISHED: MARCH/APRIL 2009


Actuaries
Risk is Opportunity.®

When it comes to population health management . . .

Managing population health

SOCIETY OF ACTUARIES

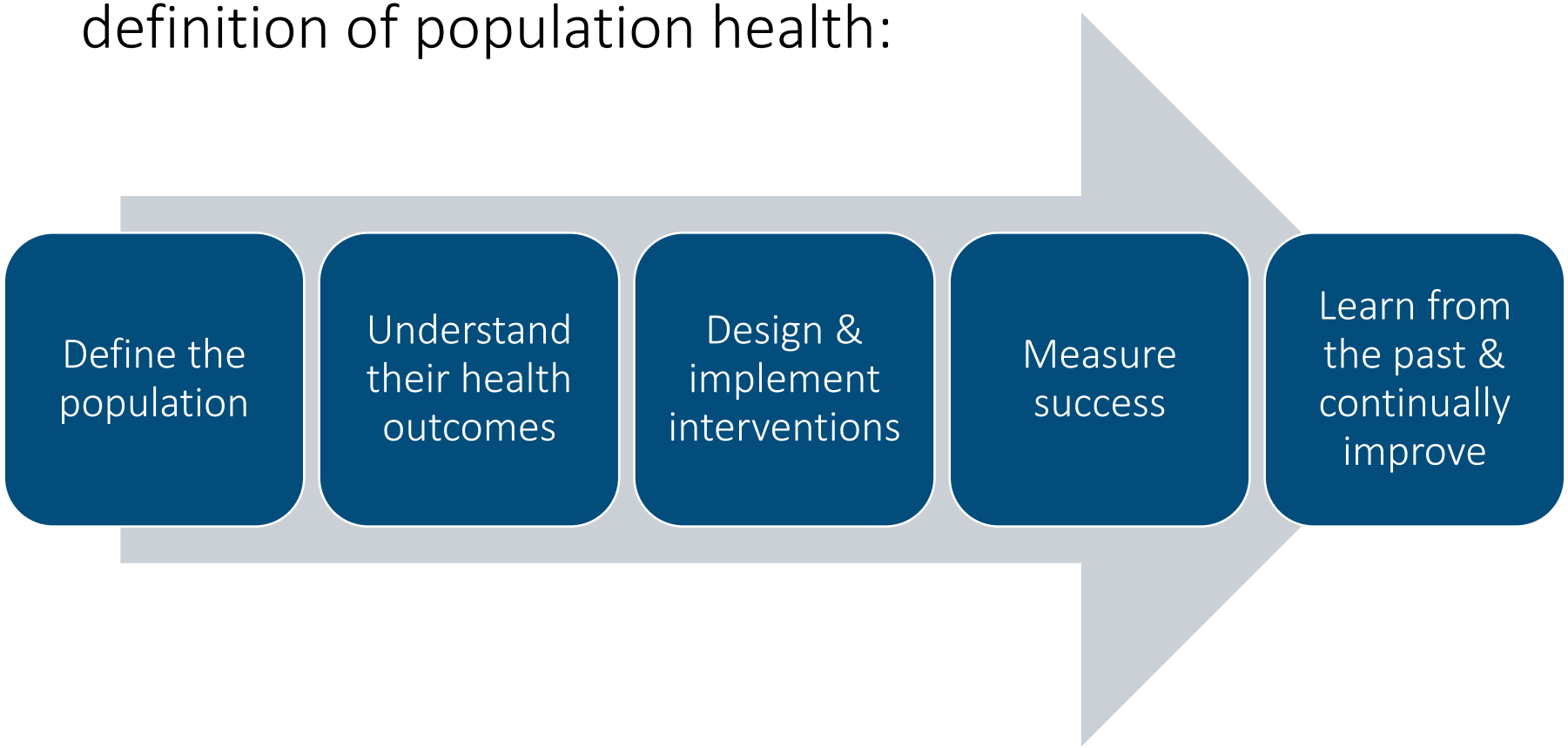
What are the “pillars” of population health management?

- Depends on who you ask . . .

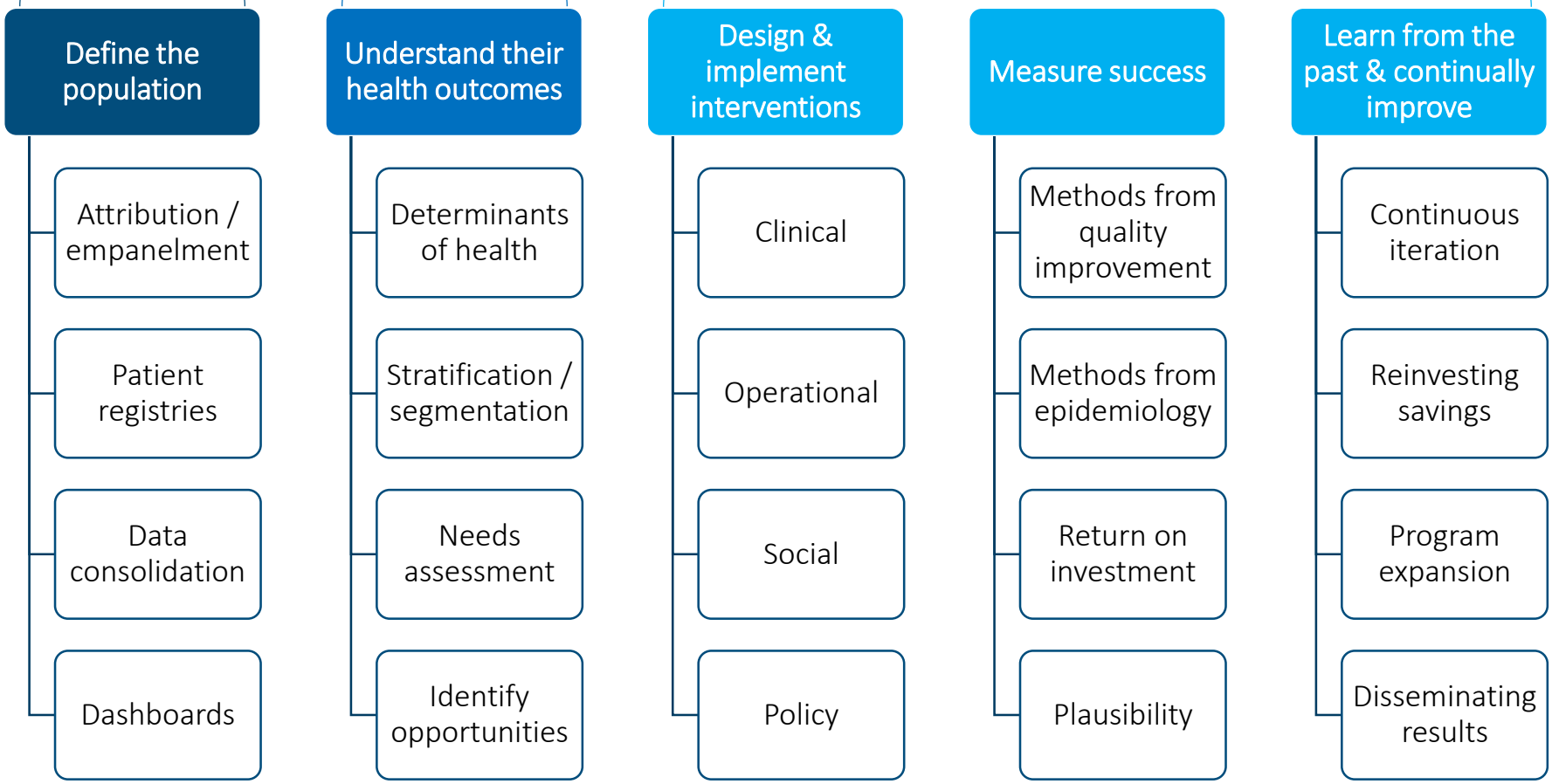
zeomega	Program design and governance	Data integration and aggregation	Actionable intelligence	Holistic, patient-centered care management	Stakeholder engagement
caradigm	Data control	Healthcare analytics	Care coordination and management	Wellness and patient engagement	
McKESSON	Planning and strategy	Network development	Practice transformation	Care coordination	
HEALTH IT ANALYTICS xtelligent HEALTHCARE MEDIA	A common goal	A robust infrastructure	A culture of change		
Eccovia Solutions	Care communications	Patient engagement	Technology	Care management	

Sticking to core principles

The framework we'll use today flows from the definition of population health:



Population health management



Questions?

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303-672-9007


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ACTUARIES®

Bundled Payments

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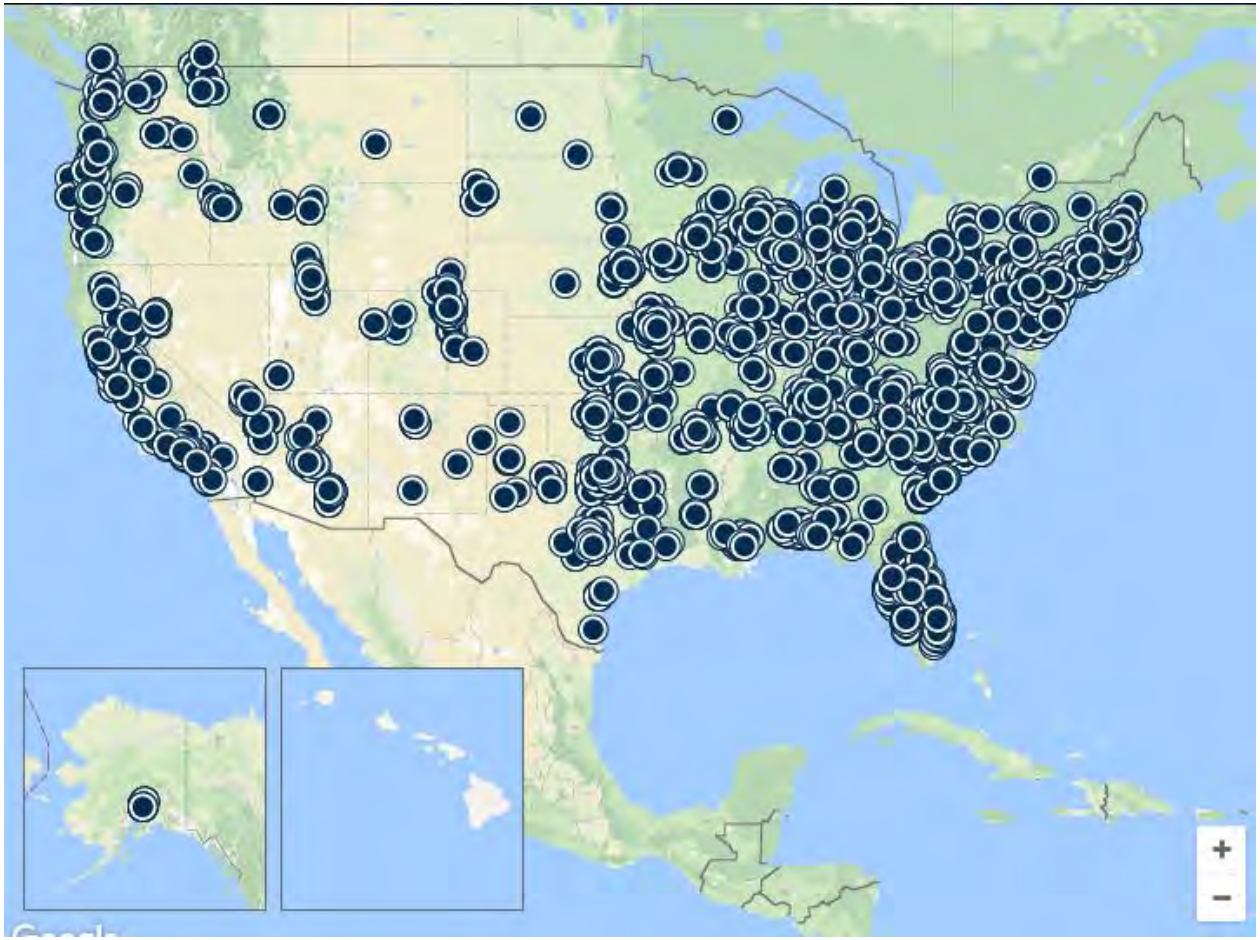
What is a bundled payment?

A bundled payment is a single payment per patient that covers costs for an entire episode of care.

How is an episode defined?

- A set of services related to each other through either clinical or temporal means.
- Within an episode a patient may utilize services across multiple providers. The severity and mix of utilization will vary between patients.

Current Use of Bundled Payments



Three CMS Episode-Based Models

- Comprehensive Care for Joint Replacement Model (CJR)
- Bundled Payments for Care Improvement (BPCI)
- Oncology Care Model (OCM)
- While these are CMS-based models, similar models exist in the commercial healthcare space

Comprehensive Care for Joint Replacement Model (CJR)

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CJR Overview

- Applies to MS-DRGs 469 and 470
  - Lower extremity (Hip or Knee) joint replacements
- Joint replacements are a fairly easy introduction to bundled payments as the episodes are acute and well-defined

CJR Episode of Care Definition

- Episode begins with a hospital discharge for MS-DRG 469 or 470
- Payment includes 90-day post-acute care beginning on date of discharge

What services within those 90 days are covered?

- Included (most Part A and Part B services):
  - Physician's services
  - Inpatient admissions / readmissions
  - SNF, Home Health, Hospice
  - Outpatient services
  - Labs, injectable drugs
  - Hospice
- Excluded
  - Acute clinical conditions not arising from complications or conditions related to the joint replacement
  - Chronic conditions that are not generally impacted by the surgery

Who is covered?

- All Medicare FFS beneficiaries with Part A and Part B coverage throughout the duration of the episode
- ESRD members are excluded

Financial risk structure

- The initial year the model is one-sided risk, after that the model is a two-sided risk model
- Retrospective reconciliation of services at year-end
- The hospitals are financially responsible for the risk
- Target prices over the year are compared to actual spending, and a payment is made either to CMS or the hospital accounting for the difference

Setting the target price

- 3 years of historical data
- A 3% discount is applied
- Transitions from being largely based on the hospital's own data to being solely based on data for the region

Inclusion of Quality in Payment

- Based on the quality of the hospital a bonus is applied to the target payment
- The bonus can be up to 1.5%
- Effectively reduces the discount to 1.5%

Primary care based models of provider risk sharing

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How do payers share risk with primary care providers?

CPC and CPC+

- Comprehensive Primary Care Plus (CPC+) is a Medicare sponsored model.
- In this model, CMS gives providers care management fees (CMF) to provide more comprehensive care for patients. The fee depends on the complexity of the case.
- If the providers meet certain targets, then they are able to keep part or all of a performance-based incentive payment (PBIP).

Program overview

- There are currently ~2,900 primary care practices participating in this model.

Source: Centers for Medicare & Medicaid Services

Pre-requisites for participation

as defined by Medicare

- Must have at least 150 attributed Medicare beneficiaries
- Must have the support of payer partners
- Must use Certified Electronic Health Record Technology (CEHRT)

Pre-requisites for participation

as defined by Medicare

continued…

Existing care delivery activities must include:

- Assigning patients to provider panel
- Providing 24/7 access for patients
- Supporting quality improvement activities
- Developing and recording care plans
- Following up with patients after ED or hospital discharge
- Implementing a process to link patients to community-based resources

In structuring a primary-care risk sharing model, we need to understand

- For what beneficiaries is the primary care practice responsible?
- What is the benchmark for success?
- What are the financial incentives, and how are they adjudicated? What is the potential for loss?

Define the population

How to tie beneficiaries to a primary care practice

SOCIETY OF ACTUARIES

Medicare's approach – Step 1

- First, Medicare will use the most recent Chronic Care Management (CCM) related service in the 24 month look-back period.
- CCM-related services include CPT codes 99487,99489,99490,G0506, G0507
- Since Chronic Care Management services require patient consent, it is assumed that the practitioner (including specialty care providers) is the patient's PCP.

Medicare's approach – Step 2

- If the patient is not assigned in the first step, he / she will be assigned based on where the plurality of primary care services occurred during the 24-month lookback period.

Table 9: CPC+ Attribution vs. Shared Saving Program Assignment

Attribution Element	CPC+	Shared Savings Program
Unit of Attribution	Set of Tax Identification Number(TIN)/National Provider Identifier (NPI) and CMS Certification Number (CCN)/NPI combinations	TIN or CCN
Look-back Period	24 months	12 months
Beneficiary Eligibility Criteria	• Medicare Part A and Part B enrollment • Medicare as primary payer • Not have ESRD • Not covered under a Medicare Advantage or other Medicare health plan • Not long-term institutionalized or enrolled in hospice • Not be incarcerated • Not enrolled in any other program or model that includes a Medicare FFS shared savings opportunity, except for the Medicare Shared Savings Program for practices that are dual participants in the Shared Savings Program	• Have at least one month of both Part A and Part B enrollment • Do not have any months of Part A or B only enrollment • Not be covered under a Medicare Group Health Plan • Reside in the United States or U.S. territories and possessions • Not be in another Medicare initiative that involves shared savings payments
Frequency	Quarterly	Annually
Practitioner Eligibility	Practitioners include primary care physicians (with a primary specialty designation of family medicine, adult medicine, geriatric medicine, hospice and palliative medicine, general practice, or internal medicine), nurse practitioners, physician assistants (in medicine), and clinical nurse specialists.	All Medicare enrolled practitioners are eligible to participate. However, the Shared Savings Program assignment methodology only includes primary care physicians (general practice, family practice, internal medicine, pediatric medicine, and geriatric medicine), specialist physicians,[9] and non-physician practitioners (nurse practitioner, clinical nurse specialist, or physician assistant).

Attribution Element	CPC+	Shared Savings Program
Period of Assignment	Prospective (beneficiaries are attributed to the practice prior to the start of each quarter)	• Retrospective for Tracks 1 and 2 (beneficiaries are attributed to the ACO after the program year has ended using all claims data with dates of service during the program year, with three months of claims run-out) • Prospective for Track 3 (beneficiaries are attributed based upon claims with dates of service within a 12-month period that ends before the program year begins (October 1 to September 30))

Pros and cons of this attribution approach?

Payer

- Pro: The first attribution step relies on services that indicate an affirmative (and not just passing) relationship between patient and provider.
- Pro: Relatively easy to administer, since it is based purely on claims data.

Provider

- Pro: The first attribution step relies on services that indicate an affirmative (and not just passing) relationship between patient and provider.
- Con: The second attribution step may cause people who have a weak connection to the practice to be assigned *(although this might not really be a problem…)*.

Care management fee

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Tiered approach to care management fee *(CMF)*

Risk Tier Criteria and CMF Payments (per Beneficiary per Month)

Risk Tier	Risk Score Criteria	Track 1	Track 2
Tier 1	Risk score < 25th percentile	$6	$9
Tier 2	25th percentile ≤ risk score < 50th percentile	$8	$11
Tier 3	50th percentile ≤ risk score < 75th percentile	$16	$19
Tier 4	Track 1: Risk score ≥ 75th percentile Track 2: 75th percentile ≤ risk score < 90th percentile	$30	$33
Tier 5 (Track 2 only)	Risk score ≥ 90th percentile *or* Dementia diagnosis	N/A	$100

Risk tiers are based on the most recent risk score data available (quarterly).

The denominator is based on risk scores for all Medicare FFS beneficiaries in the same region who meet CPC+ eligibility requirements.

Care management fee - details

- As part of the terms for participating in CPC+, providers cannot bill CMS for any Chronic Care Management (CCM) services for attributed patients. It is assumed that the CMF will cover this expense.
- If a provider in the CPC+ practice does bill a CCM service, CMS will recoup the payment later.
- If a provider ***outside*** the CPC+ practice bills a CCM service, CMS will deduct this from the care management fee (CMF).

Provider incentives

- Under a stratified CMF approach, providers may seek out patients that have more complex health issues.
- This can be a good thing ***if*** the providers follow-through and provide meaningful care coordination.
- This structure may incentivize providers to seek to boost the risk score of their assigned population (although it is unclear if most providers are sophisticated enough to do this).

Performance-based incentive payment (PBIP)

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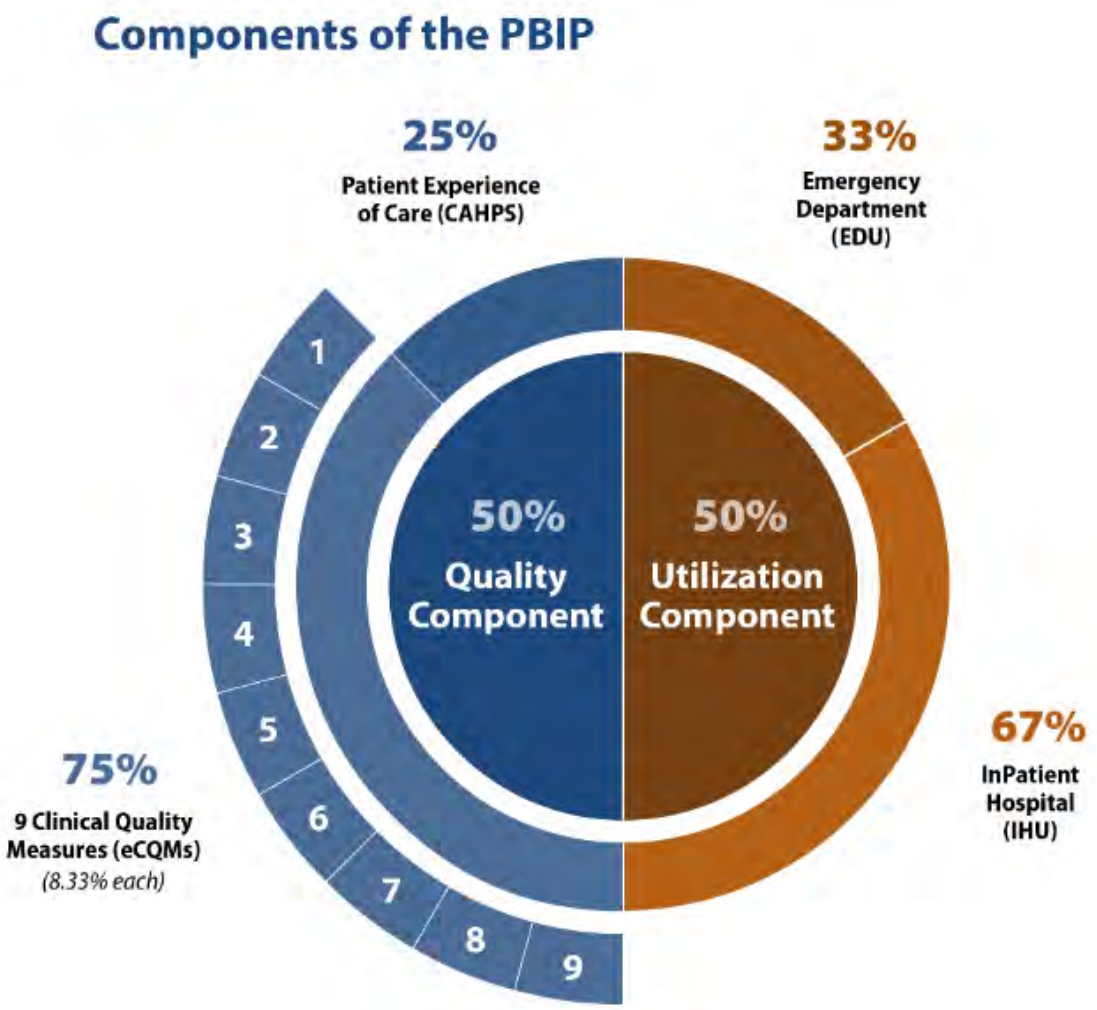
General principles

- Timing of incentive payments encourages immediate practice engagement.
- Performance goals are transparent and known to practices early in the performance period.
- Practices are rewarded on a continuous scale and for absolute performance thresholds.
- Practices must meet minimum quality thresholds before they are rewarded for reducing utilization.
- Performance goals are closely related to primary care practice and measured at the practice level.

- Full PBIP is provided at the beginning of year and part of it is later clawed back if goals are not fully met. This is designed to create a sense of loss aversion.

Incentive structure



To be eligible for the utilization component, practices must meet the minimum performance threshold for at least 6/10 quality measures.

Incentive structure

PBIP PBPM by Component for CPC+ Track 1 and Track 2 Practices

Track	Quality Component (PBPM)	Utilization Component (PBPM)	Total PBIP (PBPM)
Track 1	$1.25	$1.25	$2.50
Track 2	$2.00	$2.00	$4.00

Practice Eligibility for Performance-Based Incentive Payment (PBIP)

*Quality measures include the 9 electronic Clinical Quality Measures (eCQMs) and the 1 CAHPS Summary Score.

Do Primary Care payment models save reduce total medical expenditures?

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Initial study of CPC program

Strengths

- Improvements in delivery
- Improved care management for high-risk patients
- Improved access
- Improved coordination of care transitions.
- Slowed growth in emergency department visits by 2%.
- Doctors who participated were enthusiastic about the program.

Weaknesses

- Did not reduce Medicare spending enough to cover care management fees.
- Did not appreciably improve physician or beneficiary experience.
- Reporting burden *(although no difference in burnout from control group)*.

Comparison of 500 participating practices to 908 non-participating practices.
Source: https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2017.1678

Do Primary Care payment models – beyond Medicare

SOCIETY OF ACTUARIES

Advantages and challenges with implementing a primary care reimbursement model with a commercial population

Advantages

- Patients can be required to select a PCP, avoiding the attribution process.
- A significant portion of the commercial population has no ongoing chronic conditions, reducing physician work load.

Challenges

- If patients are required to see only their selected PCP (possibly as a gatekeeper) this may make beneficiaries unhappy.
- Since fewer patients have ongoing chronic conditions, structuring provider CMFs and incentives is less straightforward.
- CMFs may need to be structured for certain events, such as maternity or certain childhood conditions.

Advantages and challenges with implementing a primary care reimbursement model with a Medicaid population

Advantages

- Depending on the state, patients may be required to a PCP, or may be assigned without a cumbersome attribution process.
- There are many opportunities to divert care from more costly settings in this population.

Challenges

- High churn in the Medicaid population.
- Unique population with very divergent health needs, including social determinants of health that need to be considered in setting up both CMFs and any risk sharing payment.

Advantages and challenges with implementing a primary care reimbursement model with a Medicare Advantage population

Advantages

- Patients can (and often are) required to select a PCP who will drive care, avoiding that attribution process.
- A higher proportion of patients have chronic conditions, resulting in more uniform stratification.
- Relatively low churn.

Challenges

- Patient satisfaction

Direct to employer offerings

SOCIETY OF ACTUARIES

How do payers share risk with primary care providers?

Traditional self-insured arrangement

Employer has little engagement with providers

Employer (Self-Insured)

- Controls cost with benefit plan design
- Works with insurance company to get access to the network and discounted pricing
- Pays admin fee + claims to insurance company

Insurance Company

- Network development
- Negotiates discounts
- Process claims
- Provides data

Providers

- Provides medical care to employees
- Negotiates discount with insurance company

Direct to Employer (DTE) Provider Contracting

Employers negotiating directly with providers

Employer

- Controls cost with plan benefit design and provider payments
- Plan benefit design is a narrow network (ACO's network)
- Employer negotiates directly with providers

Providers (ACOs)

- Providers partner together to form ACO
- ACO is a group of providers who provides coordinated care to patients. Payments are tied to quality.
- Share in savings and deficits with the Employer

Why is this happening?

- Employers
  - Value-based purchasing is becoming more well known and understood.
  - Employers are more aware of the triple aim, and why they should pursue this goal.
  - Value proposition.
- Providers
  - Frustration with insurance company.
  - Obtaining data on a population that will enable meaningful management.
  - Increased market share.
  - A more stable, long term population.

Actuarial considerations

- Plan design
- Pricing the benefit, or alternatively setting benchmark targets for any risk sharing provisions
- Data sharing and opportunity analysis
- Identifying areas for utilization reduction or reduction in costs through service efficiencies

Challenges

- Difficult to set up and administer.
- Typically only work for large employers with at least a few thousand employees in one area.
- Hospital systems need a large physician network and a significant range of ambulatory and specialty care services.
- Difficult to capture enough data to anticipate and manage the cost of care.
- Managing out-of-network care.
- Data and customer service challenges.

Examples of where this is happening

- Adventist <-> Whole Foods (Southern California)
- Walmart and health systems in several markets
- Boeing <-> Providence-Swedish Health Alliance (Seattle)
- Lowes
- Intel <-> Presbyterian (Albuquerque)

Alternate Approach – Centers of Excellence

- In this approach, a well-respected hospital will contract with employers to provide specific high-cost or high-intensity services.
- This is most commonly seen with high-profile health systems like Geisinger, the Cleveland Clinic, or the Mayo Clinic.
- Covered services often include spine or orthopedic procedures, bariatric, or cardiac surgeries.

Is this sustainable?

- DTE contracting will likely continue to grow in popularity as employers and providers seek to reduce costs, remove red tape, and exert more control over health care.
- DTE coverage is set up for large, self-insured employers. Expanding beyond this market base will require providers to continue to evolve in the direction of a health insurance plan.
- The long term sustainability will depend in part on how well the provider can compete with insurers on providing services in a cost-effective manner.

Is it working?

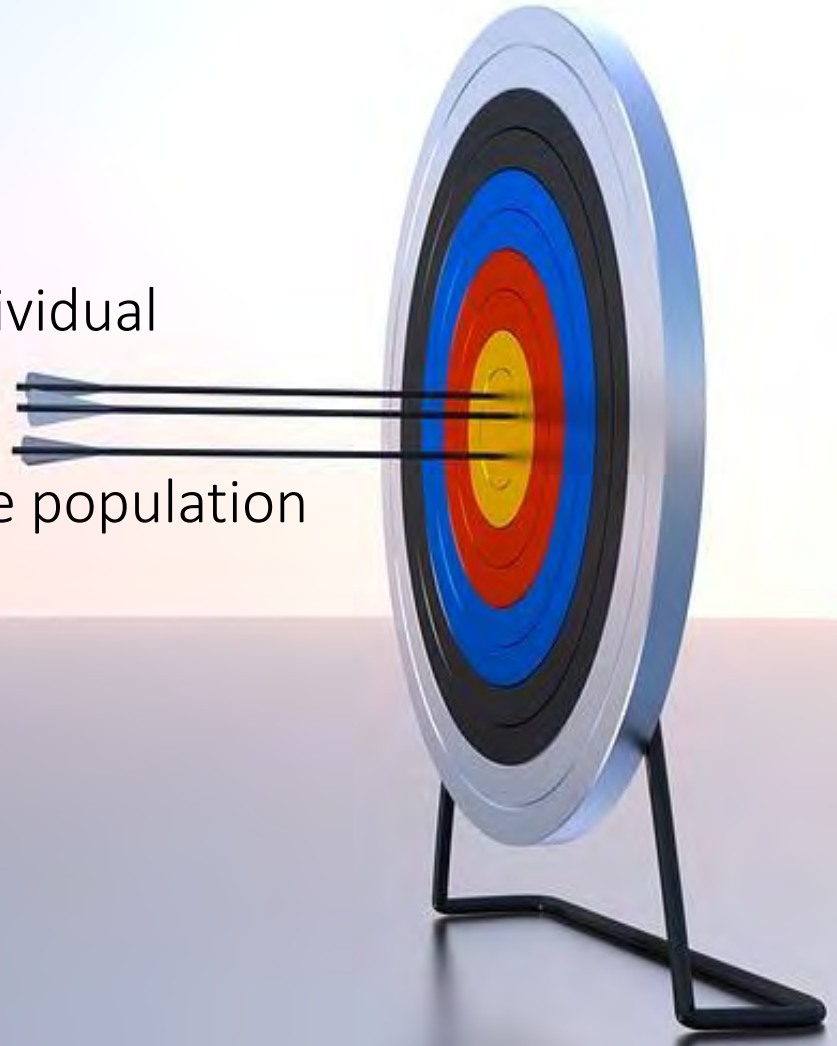
- Are employers getting more value?
- How has provider behavior changed?

Long term horizon for provider risk sharing

SOCIETY OF ACTUARIES

Triple Aim

- Better care for the individual
- Lower costs per capita
- Improved health of the population



So what will the future look like exactly?

So what are possible outcomes?

So what are possible outcomes?

- New ways of delivering care
  - Telehealth, wearable technology, AI-assisted care

So what are possible outcomes?

- New ways of delivering care
  - Telehealth, wearable technology, AI-assisted care
- Multidisciplinary care teams
  - Integration of behavioral health care
  - Coordination between providers to achieve effective, efficient care

So what are possible outcomes?

- New ways of delivering care
  - Telehealth, wearable technology, AI-assisted care
- Multidisciplinary care teams
  - Integration of behavioral health care
  - Coordination between providers to achieve effective, efficient care
- Increased data analytics at point of service
  - Identify vulnerabilities and risk of patients in real-time

The Future of Risk

- More providers will be moved to downside risk contracts
- Increased provider-risk contracting across all lines of business
- Some provider systems will begin offering their own insurance products
- Consolidation vs specialization