

2016 Strategic Viewpoint

Preparing for a less forgiving future: a macroeconomic point of view

Vizient Research Institute
June 2016



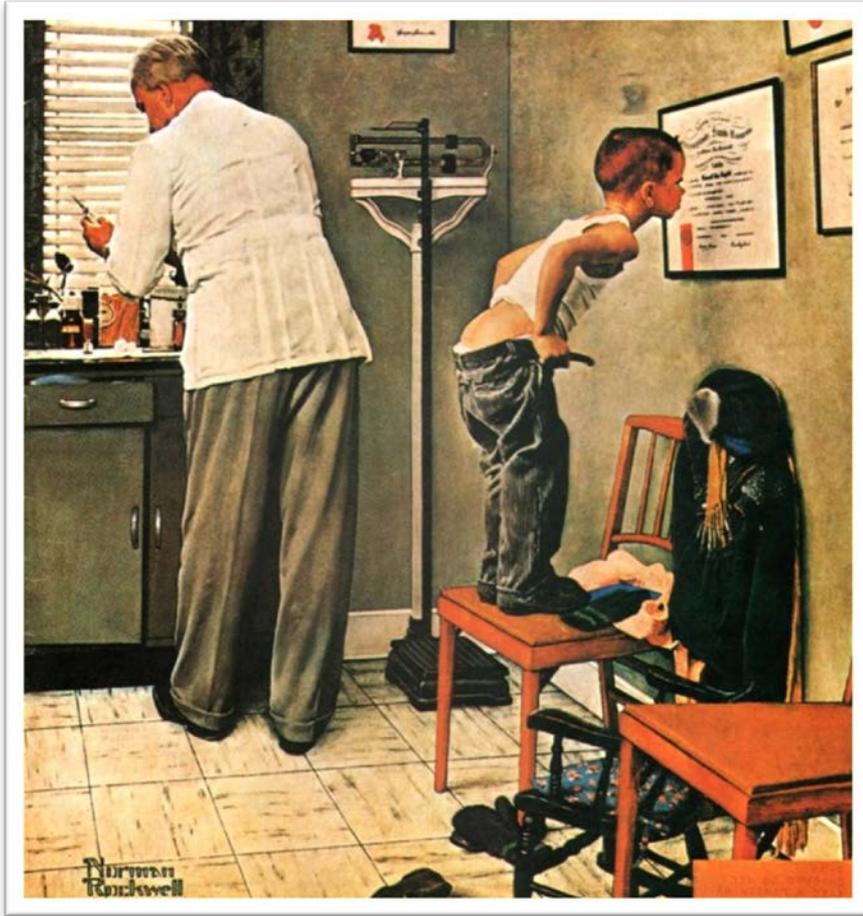
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Easy to imagine an unforgiving future: four big environmental changes

- **Retail clinics and remote/virtual care respond to patient demand for low cost/easy access alternatives to traditional office settings for low acuity needs**
- High deductibles and tech-enabled transparency compress prices for commodity services*, particularly in ambulatory care
- Acute bundles introduce “scope risk” – financial responsibility for care outside own four walls – most notably post-acute care facility use
- Longitudinal risk evolves from population spending targets/shared savings to prospective episodic payments – chronic/complex bundles

2 *Commodity services are widely available, difficult to differentiate, and are considered by consumers to be of comparable value across providers; they tend to be of lower relative acuity than highly differentiated services.



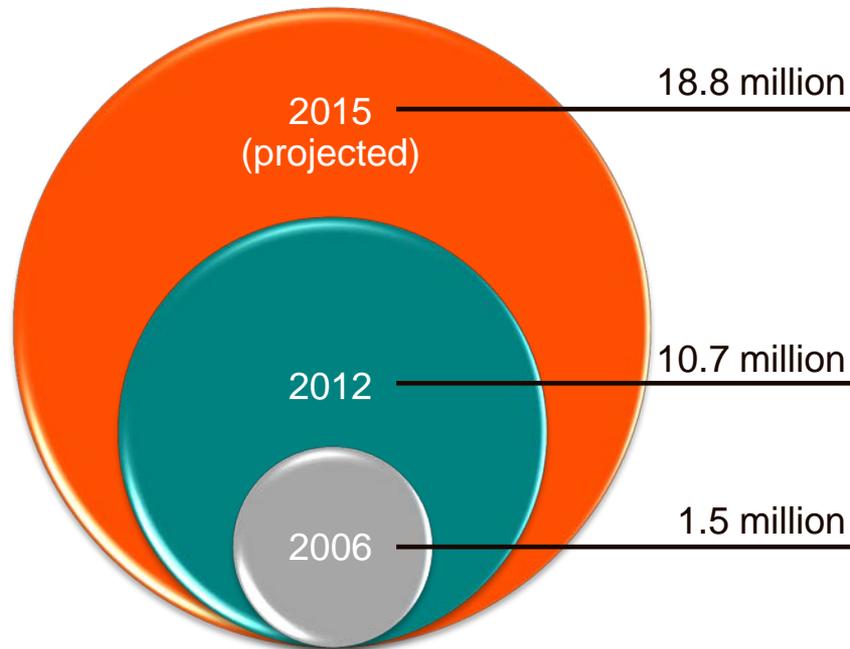
Historically, office visits meant patients coming to providers ...

Retail clinics offer easy-access, inexpensive, low-acuity care in locations much closer to the patient



Explosive growth in retail clinics could change the low-acuity health care landscape

Number of Retail Clinic Visits



- Walgreens and CVS now active in 35 states with over 1,400 operational retail clinics... regional/local Rx chains joining fray
- Ten-fold increase in retail clinic volume since 2006, up 76% in last three years
- Share of population utilizing retail clinics increased from 15% to 26% between 2013 and 2015...and patient satisfaction compares favorably to traditional care settings
- Rx chains bring real estate, capital, brand equity, scale and operational savvy to a former cottage industry

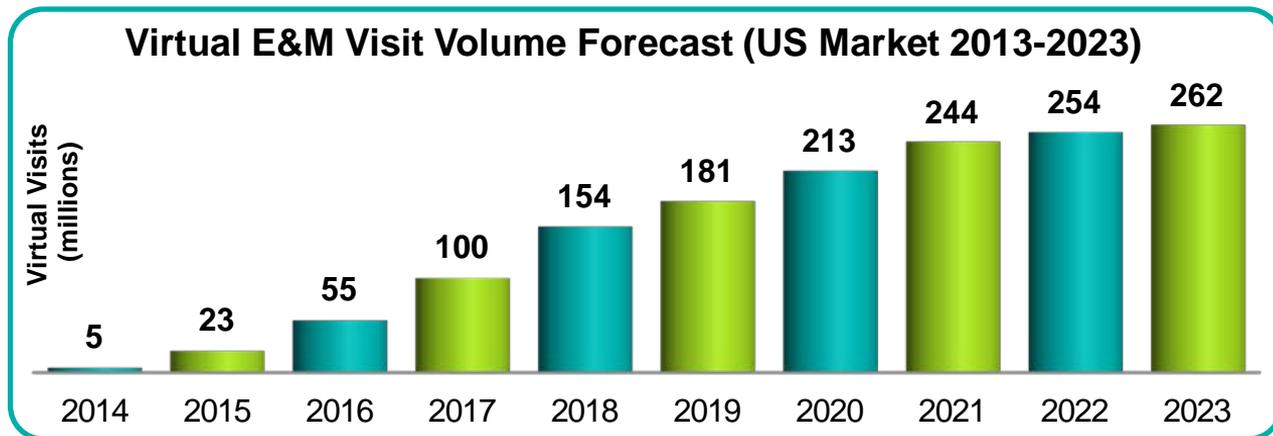
Partnerships emerging between retail Rx chains and provider systems ... potential synergies extend from low-acuity primary visits to chronic disease management ... risk for late movers in some markets

Two retail clinic business models emerging

- Walgreens has legacy clinics it staffs itself, but contracts with local providers to staff new clinics; CVS partners for medical director role, typically staffs own clinics
- Co-branding with local providers a fixture in new Walgreens model – CVS has blend of own brand and co-branded clinics
- Walgreens moving to local partner's EMR...CVS has its own EMR
- One in three survey respondents indicate they would use a retail clinic only if it was affiliated with a local health care provider – co-branding may have an advantage with consumers

Remote/virtual visits gaining traction with patients and employers

- 64% of Americans are open to virtual MD visits...70% prefer virtual visits for common prescriptions
- Medicare reimbursement for telehealth services reached \$17.6M in 2015... 29 states and the District of Columbia initiated coverage for telemedicine services
- 74% of employers expected to offer telehealth benefits in 2016, up from 48% in 2015



Remote/virtual care can complement or may compete with retail clinics

- Low acuity online triaging portals emerging under local brand umbrellas
- Primary care physicians using eConsults for real-time access to specialists
- Technology-enabled diagnostic consultations streamline patient experience and lead to “enhanced referrals” – patients arrive at specialist with test results
- Virtual encounters provide better access for patients in rural areas and increase connectivity between disease managers and the chronically ill to improve surveillance, prevent decompensation
- Depending on pace of adoption and trajectory of innovation, remote/virtual care could compete with retail clinics for lowest acuity needs

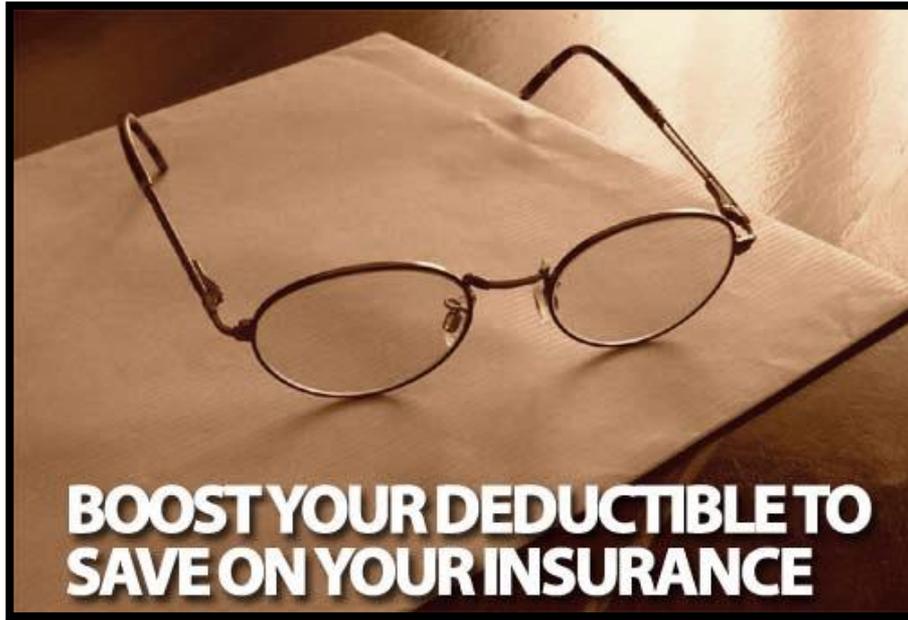
Weighing options in a changing market: what to do about retail clinics?

- More than a remote chance the retail clinic model changes the landscape for low-acuity primary care — especially as commercial insurance deductibles increase
- Whether evolution or revolution, signs point to PCPs ceding low-acuity services to easy-access/low-cost retail clinics
- Inefficient fishing net for high-acuity cases — value proposition \neq short-term ROI or large scale referrals
- May be long-term “generational play” ... vehicle to align with millennials who are less likely to value traditional PCP relationships/delivery model
- Retail partnerships = low-investment/low-risk hedge bet for early movers
- More sophisticated use of retail network = monitoring chronically ill patient cohort
- Remote/virtual care may leapfrog retail settings

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Increasingly, insurers/employers are shifting financial responsibility to patients in the form of higher deductibles



While technology-enabled price transparency makes patients more aware of what things cost ...THEM



Higher deductibles force tough choices

Steady rise in prevalence of high deductible health plans (HDHPs)

- 24% of covered workers now enrolled in HDHPs...up nearly 85% in last 5 years
- Nearly 90% of health insurance exchange purchasers chose bronze or silver plans in 2015



Observed changes in consumption patterns

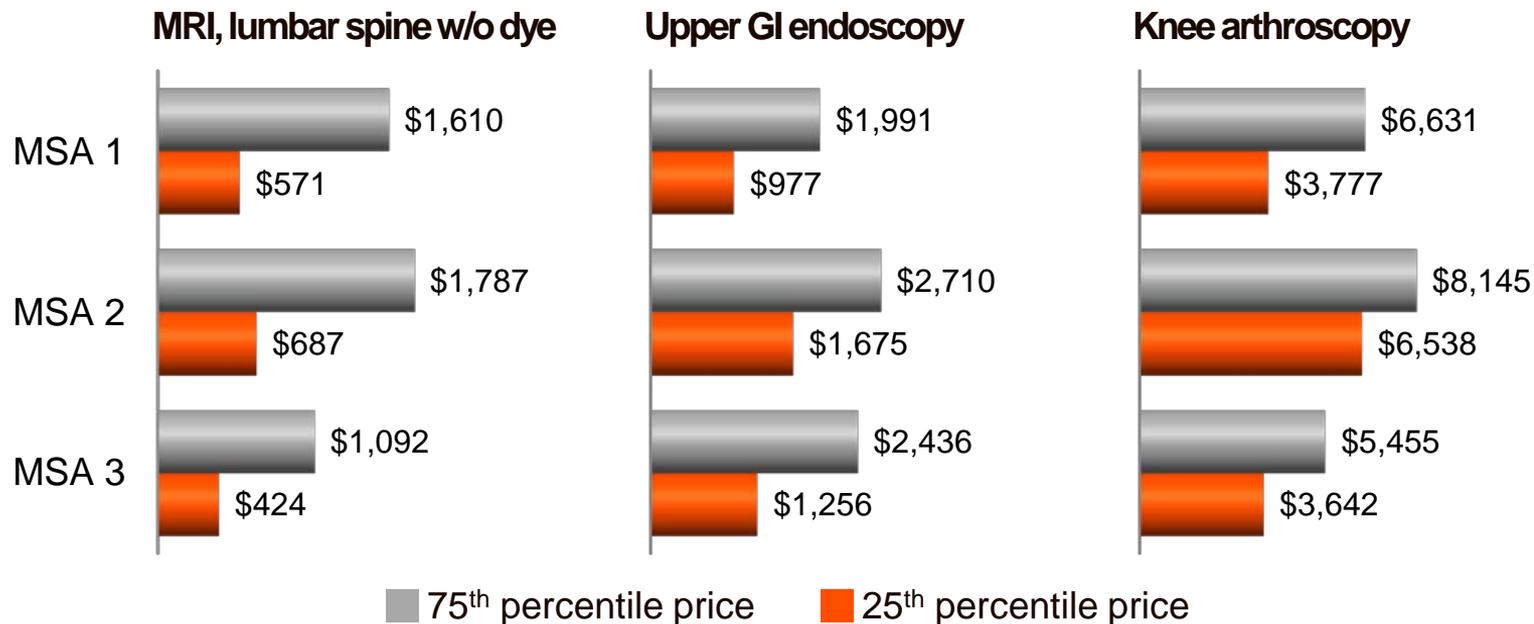
- HDHP beneficiaries spend 10% less annually vs. standard benefit peers
- 70% of spending reduction attributed to lower utilization... 30% from price shopping

Unintended consequences:
HDHP members less likely to receive care for chronic conditions than non-HDHP cohort

HDHP beneficiaries appear to forego certain preventive screenings

Wide variation within local markets means common services ripe for price compression

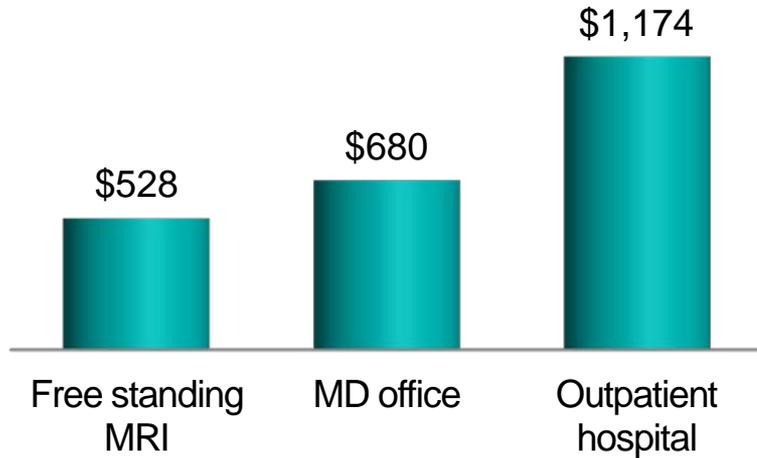
Interquartile price¹ variation within markets



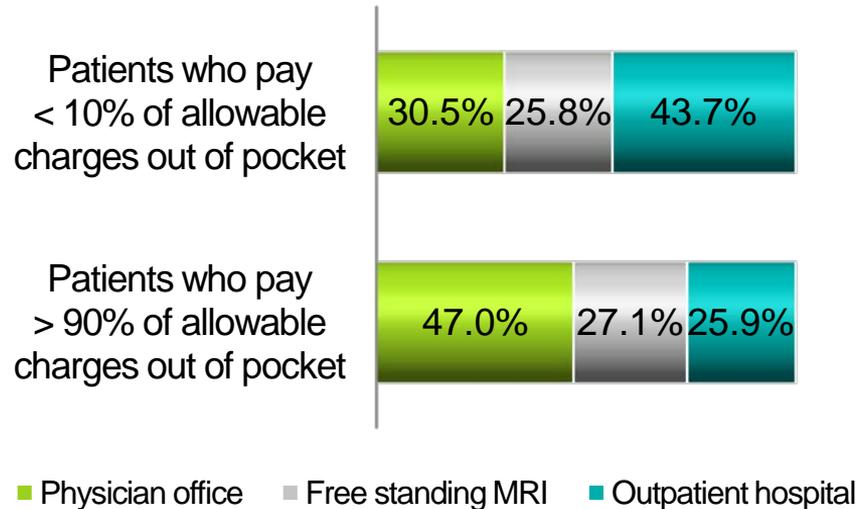
¹ Price is equal to the allowed charges based on negotiated rate due to the provider.

Imaging prices vary across sites of service...higher deductibles cause patients to vote with their feet

MRI, lumbar spine w/o dye, all markets
Median price¹



Distribution of cases by place of service
MRI, lumbar spine w/o dye, all markets



¹ Price is equal to the allowed charges based on negotiated rate due to the provider.

Facility fees targeted as CMS invokes site-neutral payments

- Moratorium on split-billing – no new conversions after January 2017
- On campus facilities rigorously defined – no hospital-based billing beyond 250 yard radius
- As much as 75% of facility fee revenue at risk for geographically distributed health systems
- Annual revenue reduction of \$10 - \$20 million not unusual for large medical groups if facility fees eliminated

Hospital-based billing unsustainable in private sector if fixed PPO copays give way to deductibles

Patient out-of-pocket responsibility

	MD office-based billing ¹	Hospital-based billing ²
Primary care MD office visit before annual deductible met	\$20	\$130
Primary care MD office visit after annual deductible met	\$20	\$42
Specialist MD office visit before annual deductible met	\$40	\$194
Specialist MD office visit after annual deductible met	\$40	\$71

¹For patients covered by PPO plan, office-based billing triggers copayment.

²For patients covered by PPO plan, hospital-based billing triggers deductible and coinsurance.

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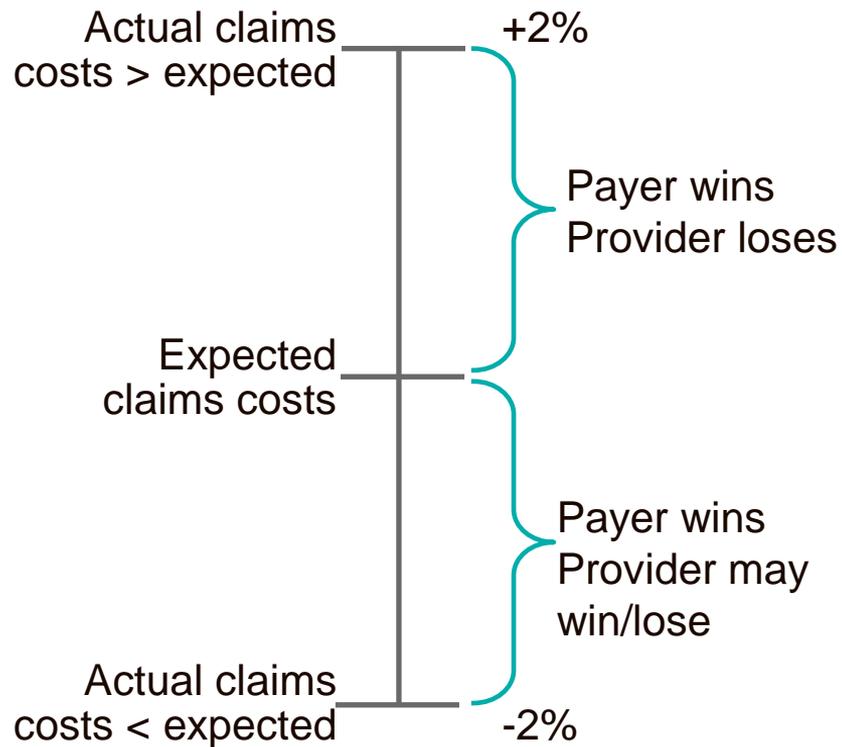
Global spending targets problematic unless population exceeds 100,000...and then still risky

- Actuarial concerns arise because both base year and performance year are subject to random claims variation – unreliable comparisons even at moderate population sizes
- Claims costs for 5,000 attributed lives randomly fall within risk-free corridor (+/- 2%) less than half of the time – unwarranted bonuses occur 25% of the time, undeserved penalties assessed over 26% of the time
- Even when results are pooled over 3 years, 40% of ACOs with 10,000 attributed lives would incur unwarranted penalties commonly ranging from \$1 million to \$2 million, with exposure up to \$5 million
- An ACO must reach 100,000 attributed lives to reduce the probability of an unearned penalty to less than 1%, but even at 100,000 lives, an ACO has a 0.3% chance of a \$10 million penalty arising from random claims variation

ACO experience to date running true to form – mirrors the random claims variation in actuary warnings

- In 2014, 92 of 333 Medicare Shared Savings Program (MSSP) ACOs measured savings sufficient to trigger a bonus and 89 more reported savings too small to qualify for incentives...while 152 ACOs generated losses
- In the first 3 years of the Pioneer ACO program, 12 of 32 ACOs withdrew from participation...of the remaining 20 ACOs, 11 measured savings sufficient to trigger incentive payments in 2014 while 3 ACOs incurred financial penalties
- In the first year of the Advance Payment ACO program (2012-2013), only 8 of 34 ACOs recorded savings sufficient to trigger bonus payments
- Medicare reported net savings of \$465 million in 2014 from the MSSP ACO program (its largest); the equivalent of 0.9% of claims costs associated with all beneficiaries attributed to MSSP – and 0.08% of total Medicare spending in 2014

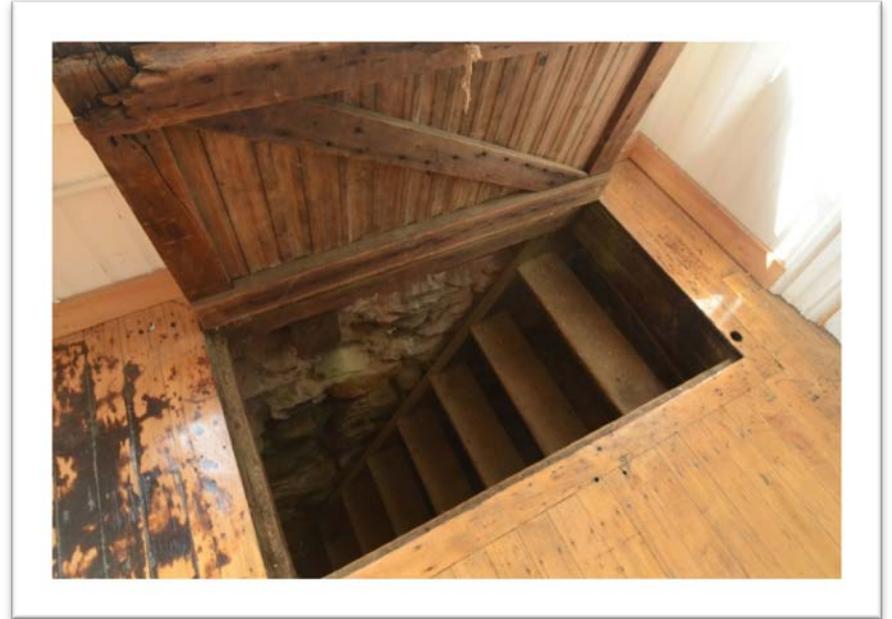
Shared savings plans = sure win for payers...more like roulette for providers



- If actual claims costs > expected, payer benefits by provider absorbing part of shortfall
- If actual claims costs < expected, payer benefits and shares **their savings** with provider
- Unless all ACO patients are incremental new volume, payer savings came from providers; shared savings = partial return of provider loss
- Payer enjoys a benefit in all scenarios – provider has significant downside risk and questionable upside potential
- Risk corridor insulates payer while exposing providers

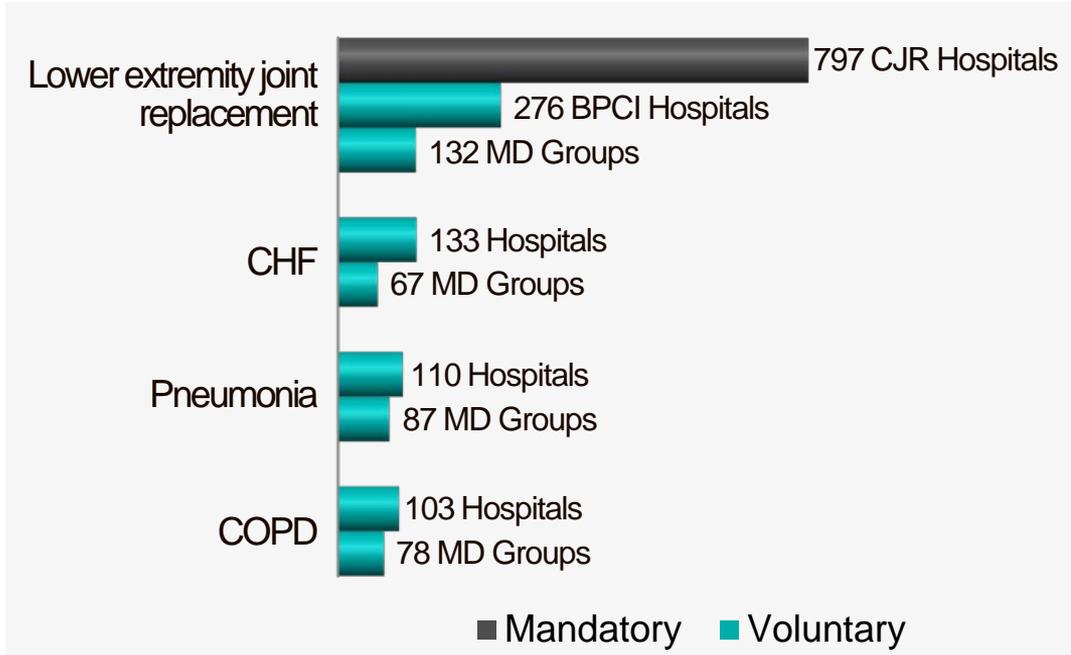
Selection bias is a trap door for HMOs/ACOs ... retail clinic could be the trigger

- 2,500 capitated/attributed lives migrate to competing health systems, attracted by “retail-like” clinics
- \$10.1 million in capitated revenue (or expected “attributed spend”) leaves with them
- Retail clinics differentially attract healthy majority, with average spend of \$500 PMPY
- Budgeted spend down \$10 million but only \$1.5 million in medical costs leave
- \$8.85 million surplus on healthy majority used to subsidize sick subset of population now gone ... costs for sickest beneficiaries remain



CMS eyes bundled pricing...49 demonstrations underway

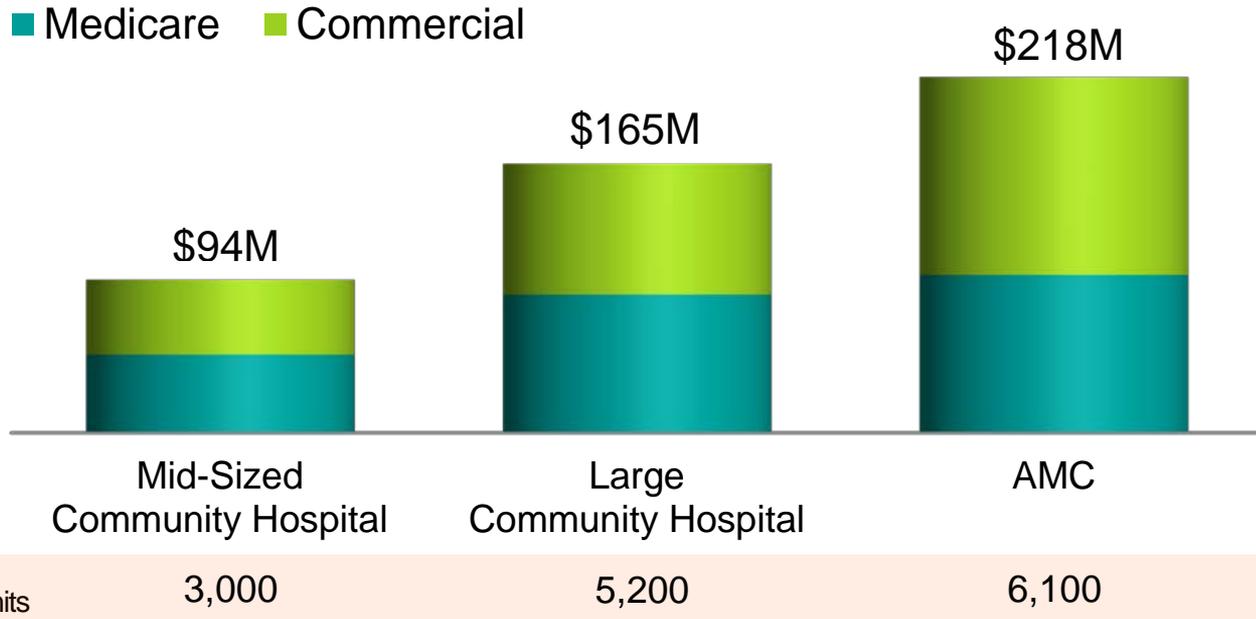
Participation in 2016 CMS Bundled Pricing Programs (BPCI Model 2 and CJR)



- Unlike population spending targets/shared savings, which leave traditional FFS payments in place, prospective bundled rates move variation penalty to individual patient level
- Voluntary demonstrations like BPCI give way to mandatory bundles under CJR
- Voluntary cancer bundles = first foray into chronic/complex episode payments... mandatory conversion likely not far behind

Bundled prices will bring significant part of hospital business into play if they gain traction

Current FFS revenue from targeted bundle admits (knee/hip, PCI/CT surgery, spinal fusion)



24 Note: Commercial prices for large and mid-size community hospitals are estimated at 90% and 85% of the median AMC prices, respectively.
Source: Vizient Clinical Data Base (CDB); Vizient Financial Data Base.

Bundled payments slow to re-emerge in private sector

- Global rates for hospital and physicians was the standard payment method for CT surgery in early days of managed care – organ transplants have been paid this way for 20 years
- “Packaged prices” faded with introduction of DRGs – providers now had incentives to manage the acute admission
- New iteration of bundled prices expands financial responsibility beyond inpatient confinement – PAC facility use the largest component of scope risk
- Vizient members surveyed report <5% of commercially insured revenue arising from bundled pricing contracts
- Commercial payers may be waiting for CMS to move first; riding Medicare coat tails not an uncommon practice

“Bundled episode spending index” serves as canary in coal mine

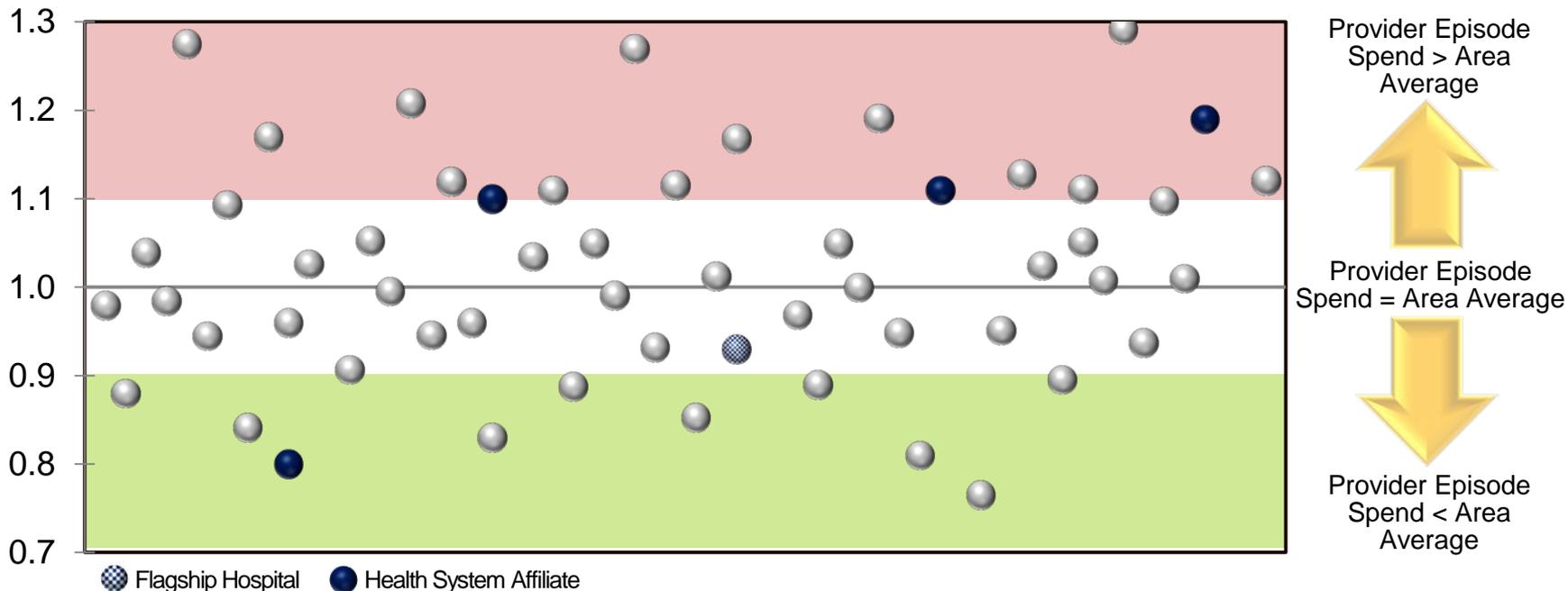
- Claims data (Medicare and commercial) provides glimpse of payer’s episode spending
- Spending index based on payer expenditures, ***not provider costs***
- Above-average payer expenditures for any provider vs. peers/competitors yields spending index > 1.0
- Below-average payer expenditures for any provider vs. peers/competitors yields spending index < 1.0
- Providers with spending index < 1.0 are better positioned for bundled pricing



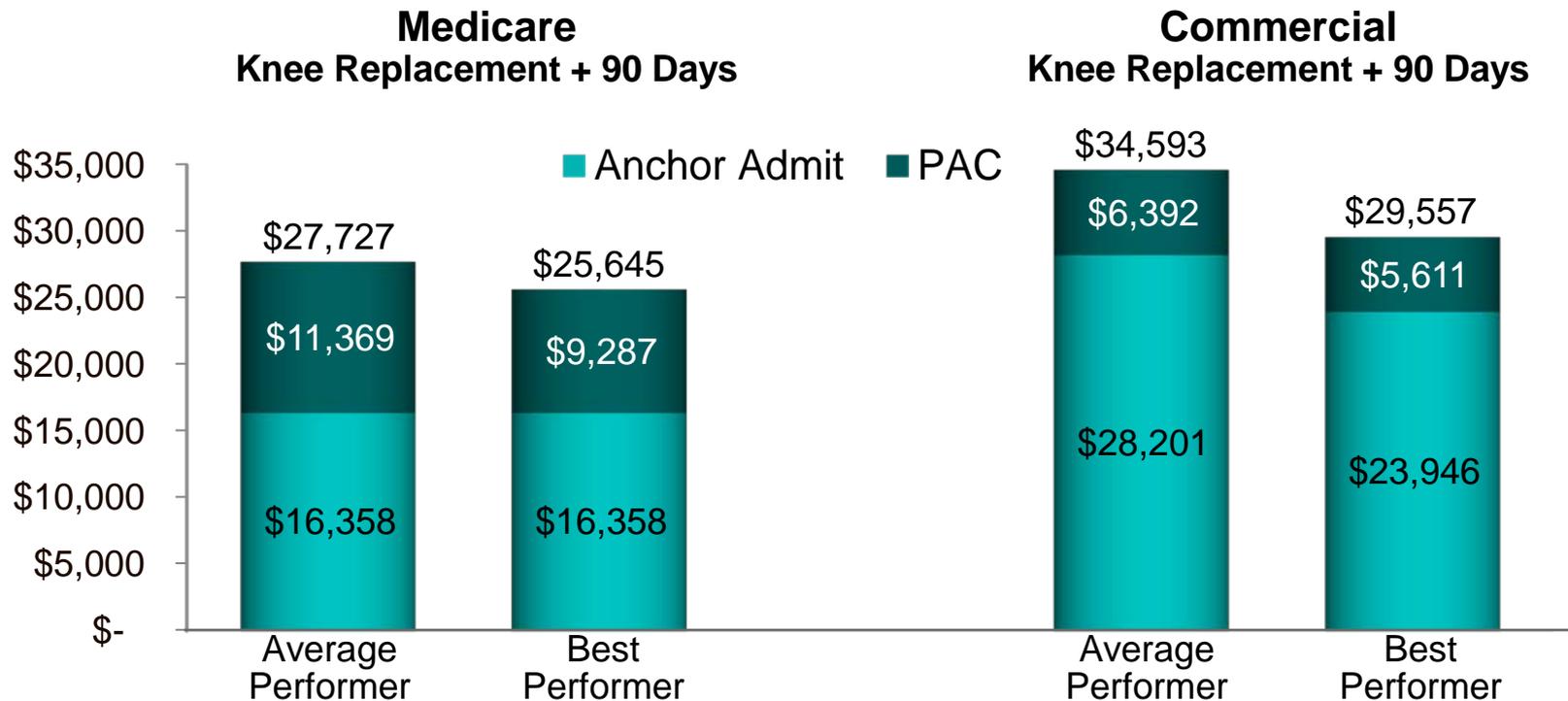
Some hospitals well-positioned for bundled pricing, others vulnerable...intra-system variation not uncommon

Bundled episode spending index, uncomplicated Medicare joint replacements

Ratio of 90-day payer spend (index hospital ÷ area average), 2010-2013



PAC facility use drives bundle performance in Medicare... in commercial bundles, it's all about anchor admit price



“Scope Risk” focuses attention on episode spending outside own four walls

Economic implications of variable PAC facility utilization (uncomplicated Medicare joint replacements)

	Providers with low episode spend	Providers with high episode spend
% of cases discharged to SNF or inpatient rehab	30-35%	65-70%
PAC facility cost as % of total episode spend	15-20%	30-35%
Average days of PAC facility use per case	7.1	15.7
Average PAC facility cost/case	\$4,008	\$9,671

Joint replacements may just be first domino to fall

Bundled price case type	% CMS spending	Cumulative % CMS spending
Knee/hip replacements	2.8%	2.8%
PCI/CT surgery	2.4%	5.2%
Simple pneumonia/ respiratory infection	2.2%	7.4%
CHF	1.9%	9.3%
Spinal fusion	1.2%	10.5%

Common theme if acute bundles expand – PAC facility use is an untethered cannon

Bundled price case type	PAC facility as % of total	PAC cost interquartile variation	Potential savings/case if PAC use reduced by one quartile
Knee/hip replacements	24%	74%	\$1,700 - \$3,000
PCI/CT surgery	8%	84%	\$1,200 - \$1,800
Simple pneumonia/respiratory infection	21%	61%	\$900 - \$1,300
CHF	17%	58%	\$900 - \$1,300
Spinal fusion	11%	95%	\$1,400 - \$2,300

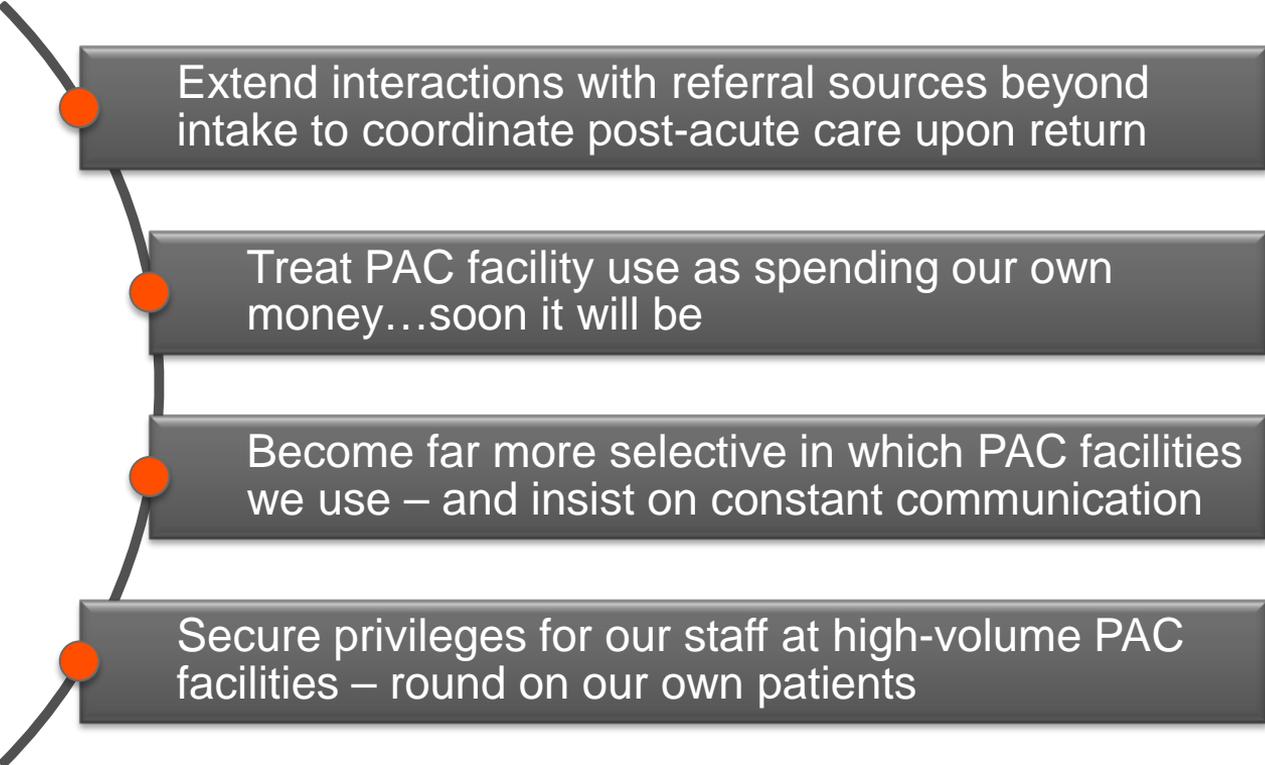
Note: Analyses of bundled case types is limited to the following DRGs: 470, 220, 194, 292, and 460. "PAC cost interquartile variation" represents variation in performance across index hospitals that meet a volume threshold for each case type.

Whose ox when PAC facility use drops?



- Two-fold variation between high- and low-quintile PAC cost per case in Medicare joint replacements
- High-quintile provider can save \$3,500 per case if PAC facility use → average
- Average provider can net \$2,000 per case if PAC facility use → low quintile
- Analogous to 1980s ... reduce utilization of someone else and pocket the savings
- Counterintuitive but key = managing, not owning, the care continuum

What members are doing to prepare for acute bundles



Extend interactions with referral sources beyond intake to coordinate post-acute care upon return

Treat PAC facility use as spending our own money...soon it will be

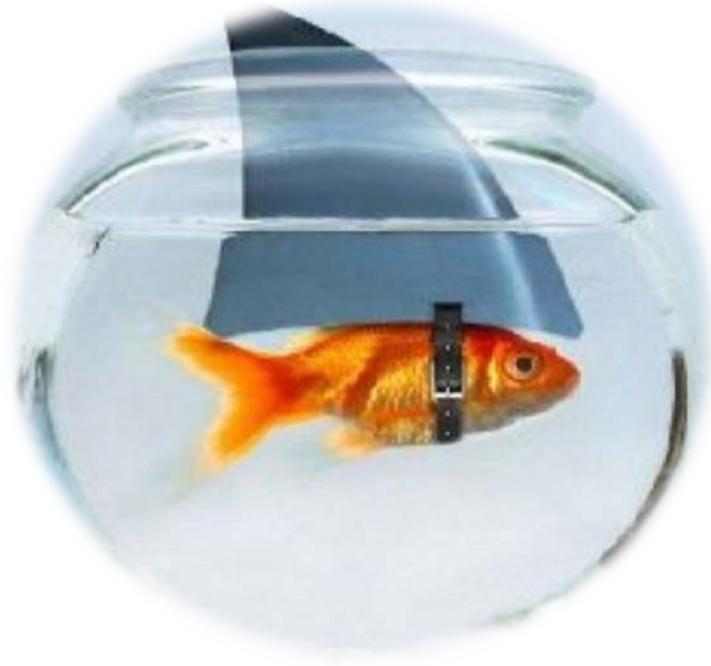
Become far more selective in which PAC facilities we use – and insist on constant communication

Secure privileges for our staff at high-volume PAC facilities – round on our own patients

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Population “health”: an inconvenient truth



Despite wishful thinking to the contrary, the overwhelming majority of health care spending is not preventable...but much of it is manageable

The four biological cohorts of any population

	Economics	How Managed Care Failed	What Will Work Now
Healthy majority	Minimal spending and negligible savings; subsidizes insurance pool	Overspent on “say no” infrastructure while overestimating prevention savings	Low cost, easy access for low acuity needs
Asymptomatic/early chronic conditions (e.g., diabetes)	Most of spending unpredictable, unavoidable single events*, not episodic	Went “chips all in” on PCP gatekeepers	Commodity price transparency and acute bundled pricing
Advanced chronic disease (e.g., CHF/ COPD)	Per capita spend \$50,000/year; 20% to 40% savings via serial stabilization	Ignored completely – hoped patients were in someone else’s risk pool	Evolution from global spending targets to longitudinal episode payments → coordinated, multispecialty care plans including Rx/psychosocial needs
Complex episodes (e.g., cancer)	Per capita spend \$150,000/year; 20% to 40% savings via variation reduction	“Centers of excellence” solely focused on price – blind to enormous, avoidable variation	

*Examples include: appendectomies, cholecystectomies, childbirth, accidents, and injuries

Specialty Rx, biologics likely to intensify the concentration of spending among chronic/complex cohorts

Approximate Monthly Cost of Commonly Used Specialty Drugs, 2014

Medication	Indication for Use	Monthly Cost
Provenge	Metastatic prostate cancer	\$105,800
Sovaldi	Hepatitis C	\$29,900
Olysio	Hepatitis C	\$23,600
Rituxan	Non-Hodgkin's lymphoma	\$21,900
Gleevec	Chronic myeloid leukemia	\$11,900
Avastin	Metastatic colorectal cancer	\$11,600
Revlimid	Multiple myeloma	\$9,300
Neulasta	Neutropenia	\$5,700

- In 2014, U.S. spending on Rx drugs totaled ~\$379 billion...nearly 1/3 of spend on specialty drugs
- Growth rate in spending for traditional Rx was 6.4% compared to >30% for specialty drugs
- Median price for new cancer drugs approved in past 5 years has more than doubled to >\$10,000 per month
- By 2016, 8 of the 10 top selling drugs forecasted to be biologics which are 22 times more expensive than traditional Rx

Prospective episode of care payments – chronic/complex episode bundles – hold promise if adopted

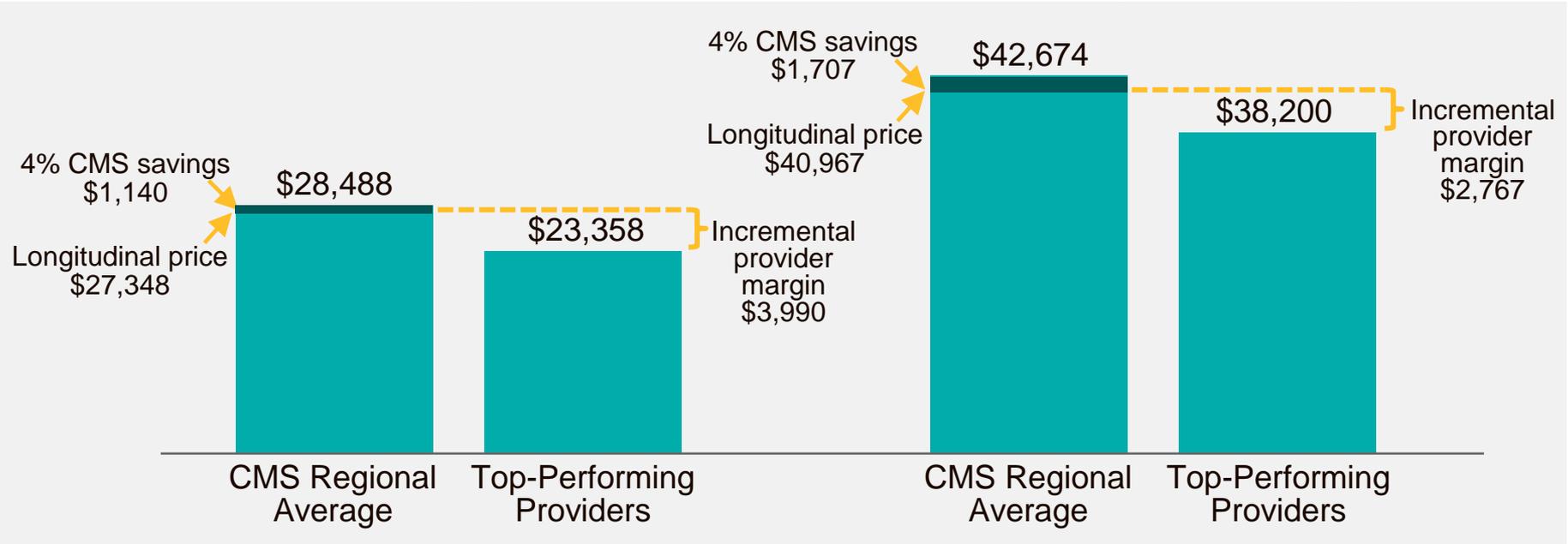


- Shifting **incidence risk** to providers never a good idea — splinters risk pool
- Global risk via capitation or ACO spending targets susceptible to selection bias and random claims variation
- Prospective, all-inclusive payments for complex/chronic episodes eliminate incidence risk
- Imagine a “longitudinal DRG” – prospective bundled price for a chronic or complex episode of care – like discovery of a new species

Most efficient health systems could see temporary windfall under longitudinal risk

Episode spending/patient (CHF)

Episode spending/patient (lung cancer)



Political expediency may set initial episode prices at nominal savings vs. FFS but it is widely known that $\geq 20\%$ of current spend is avoidable ... easy to imagine prices falling over time as waste is extracted from the system

Directional signals pretty clear under longitudinal risk ... here's what matters



Fragmented
care for
chronically ill
patients



Hospitalization
rates for
chronic patient
cohorts



Six-month
chemotherapy
costs per
newly
diagnosed
cancer patient



Medical
admits/ED use
among
chemotherapy
patient cohorts

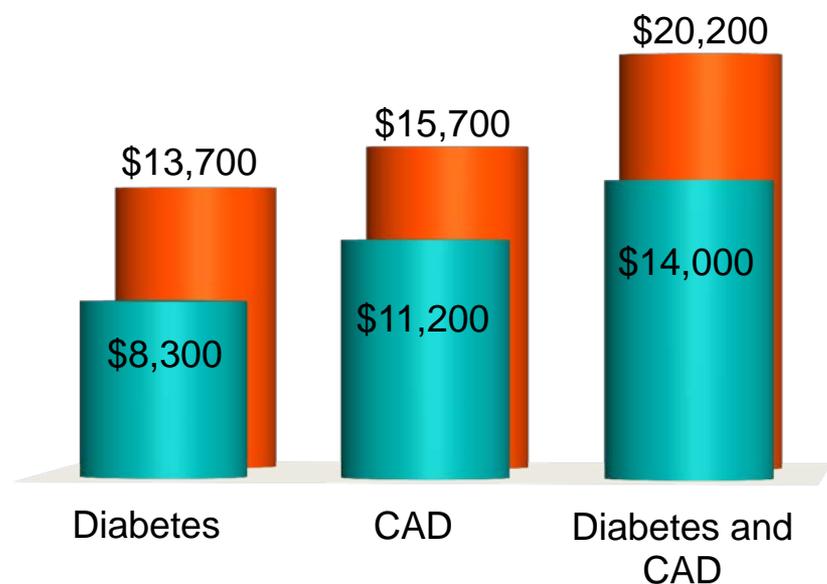


Palliative care
uptake/hospice
utilization
among
terminally ill
patient cohorts

Patient and Family Engagement

Fragmented care associated with higher episode spend

Payer spending per chronic episode



- Compares patients who received >90% of physician services from single multispecialty group to patients receiving <50% of physician care from a single source
- Chronic episodes with fragmented physician care cost payers 40% to 60% more than single-source episodes
- Consolidating care management for chronic episodes creates competitive advantage ... key to financial sustainability under longitudinal DRGs

■ Patients receiving >90% of physician care from a single multispecialty group

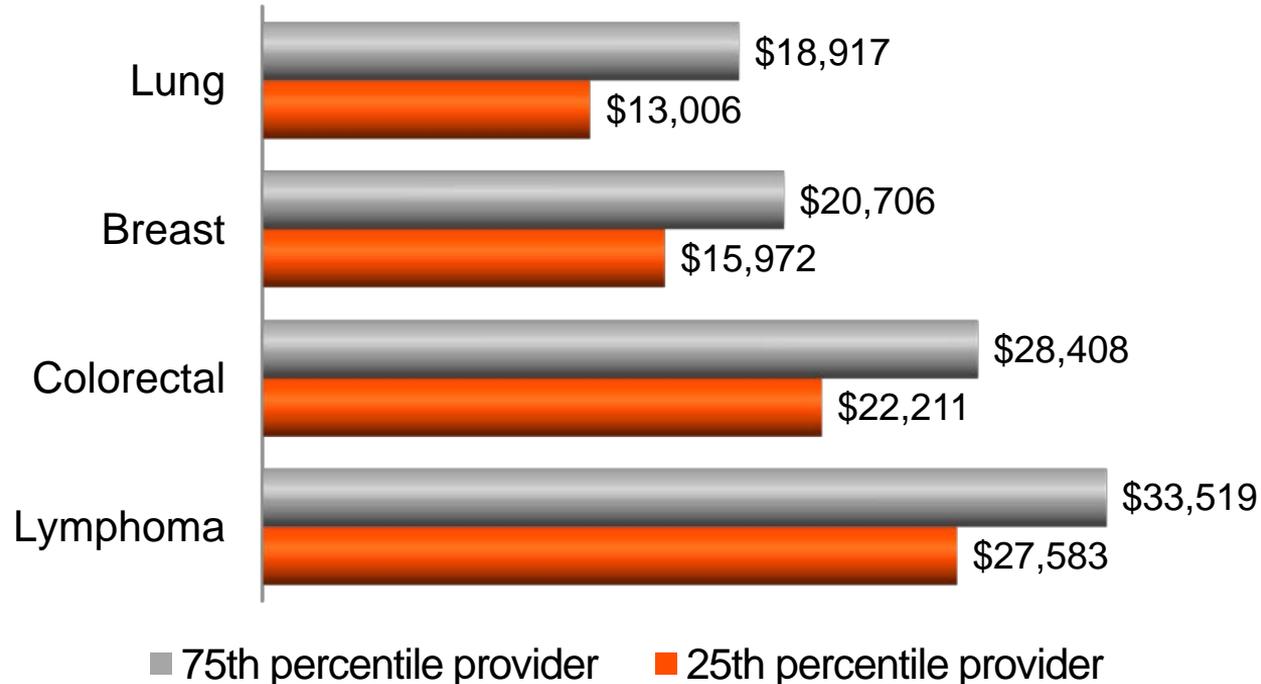
■ Patients receiving <50% of physician care from any one MD group

Chronic episode spending is dominated by hospital utilization

CHF patient cohort	Percentage of CHF population	Percentage of CHF spending	Average cost per episode
0 admits	46.0%	12.8%	\$7,873
1 admit	27.6%	26.7%	\$27,390
2-4 admits	23.5%	47.9%	\$57,760
≥ 5 admits	2.9%	12.7%	\$122,443

Interquartile variation in chemotherapy costs point to vulnerability if longitudinal DRGs gain traction

Average chemotherapy costs per Medicare episode



Fewer admits by top performers...whether direct admits or via ED

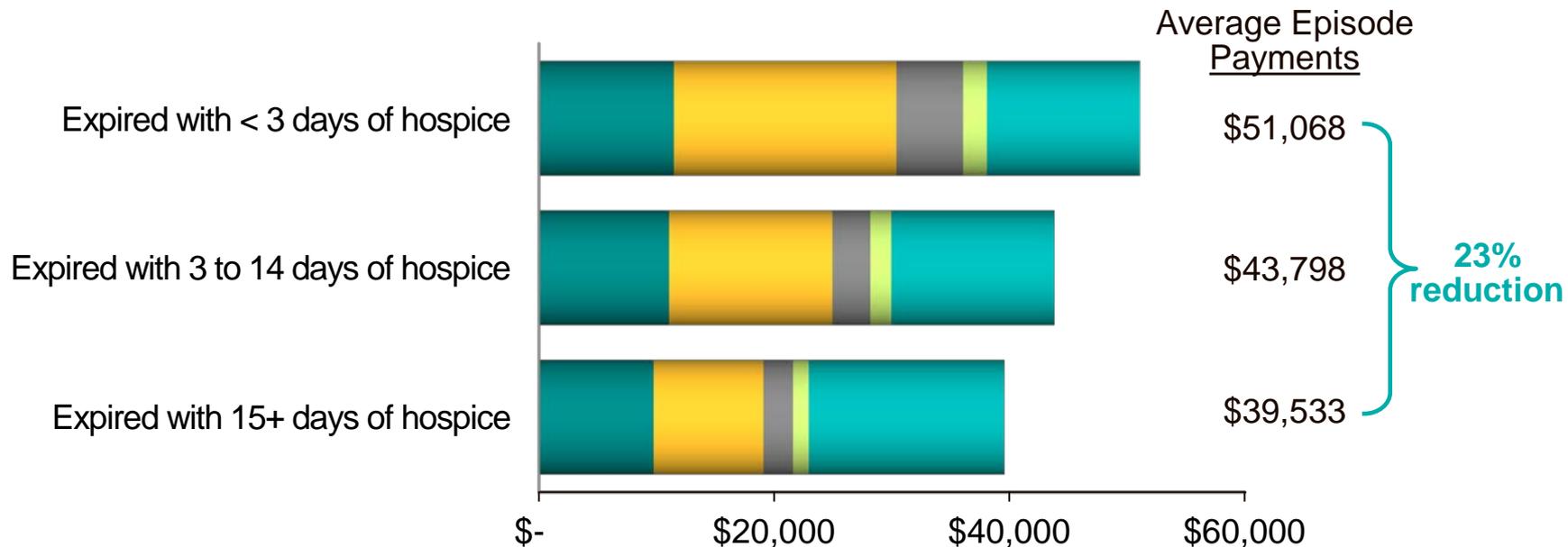
Medical admits per chemotherapy episode



Hospice use shows “dose effect” in end-of-life episode spending

Distribution of Medicare spending for chemotherapy episodes (decedent cohort)

■ Chemotherapy ■ Medical admits ■ Surgical admits ■ Radiation therapy ■ Other payments



Environmental changes raise stakes for emerging health systems

- Bargaining leverage, a traditional benefit of provider consolidation, loses some luster in price-sensitive markets, especially for widely available, undifferentiated services
- Managing a system more important than expanding it when bundled prices bring scope risk
- Tolerance for avoidable variation becomes costly when episode spending becomes health system's money

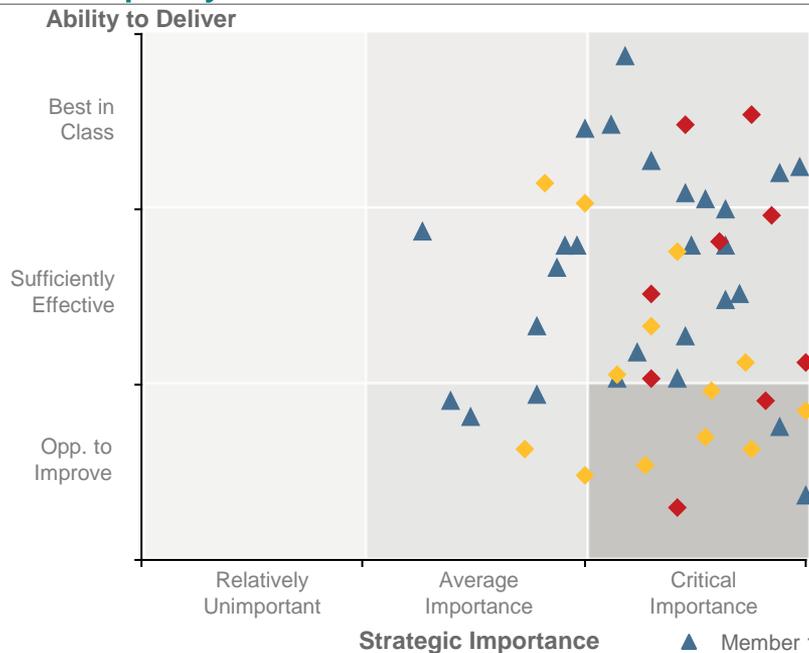
Still more attention on building railroads than on making trains run on time

- Percent of general acute care facilities that are part of systems up from 55% in 2006 to 63% in 2015
- 76% of all inpatient admissions occur within multi-hospital systems...up from 65% in 2006
- Total “transactions” relatively steady 2013-2015 at about 100 per year – perceptible shift from merger/acquisition toward joint ventures, affiliations, and partnerships
- FTC cites track record of price hikes when it challenges deals in court – scrutiny intensifying on systems to demonstrate value to buyers

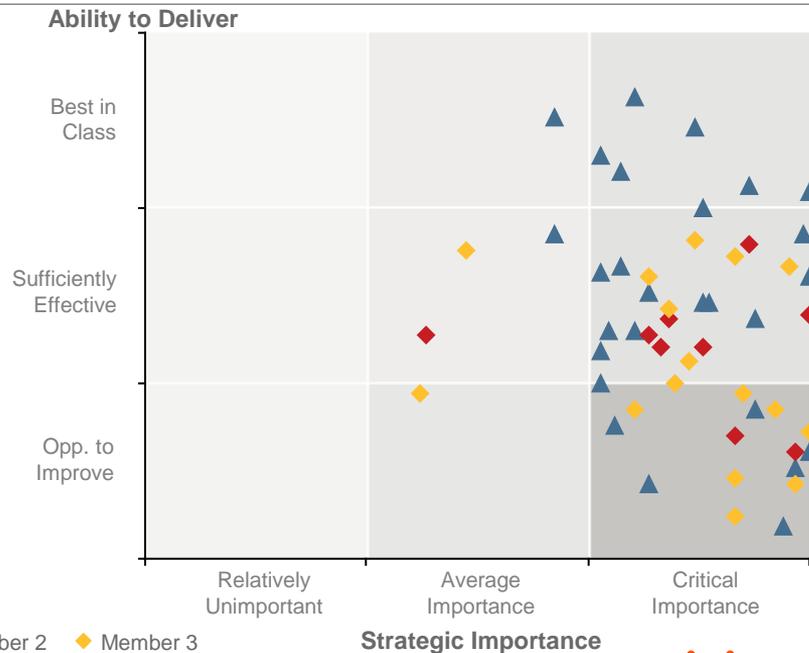
Historic emphasis on “doing deals” has left hard work of genuine system integration largely undone

Vizient members acknowledge strategic importance of coordinating multidisciplinary care and reducing variation...but are not consistently confident in ability to deliver

Multidisciplinary Care



Variation Reduction



48 NOTE: "Variation Reduction" defined as the following capability areas: a.) Physicians hold each other accountable for adherence to evidence-based standards of care; and b.) Consistent patient care delivery and experiences provided across all health system locations among patients with similar clinical profiles. "Multidisciplinary Care" defined as the following capability areas: Physicians practice multidisciplinary team-based care (vs. siloed sub-specialty practice) for patients with serious illnesses.

Recap: Key Drivers

Higher insurance deductibles intensify patient demand for low cost/easy access alternatives to traditional settings for low acuity services

Commodity price compression in imaging and ambulatory care erodes margins for commonly available services

Bundled pricing introduces scope risk – financial responsibility beyond our own four walls

New generation of longitudinal risk would reward most efficient systems – episode payments focus attention on chronic/complex patients

Five steps to get ready

- 1** Prepare for a shift in consumer demand for low cost/easy access alternatives for low acuity needs
- 2** Anticipate intensification of commodity price compression – more effective capacity management will be essential
- 3** Prepare for scope risk – put PAC facility use under microscope
- 4** Accelerate the evolution of longitudinal risk from population spending targets to prospective episode of care payments
- 5** Reduce fragmentation of physician care to meet the unmet promise of chronic/complex care coordination

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